

The information contained in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell nor do they seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion. Dated June 14, 2012.

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated July 29, 2011)



Shares of Common Stock
Warrants to Purchase up to Shares of Common Stock

We are offering _____ shares of our common stock and warrants to purchase _____ shares of our common stock. We are not registering hereunder the shares of common stock issuable from time to time upon exercise of the warrants. Each investor will receive a warrant to purchase _____ share(s) of our common stock at an exercise price of \$ _____ per share, for each share of common stock purchased.

Our shares are quoted on The NASDAQ Global Market under the symbol "MVIS." On June 13, 2012, the last sale price of our common stock as reported on The NASDAQ Global Market was \$2.91 per share. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange or other nationally recognized trading system.

Investing in our securities involves a high degree of risk. Please see the sections entitled "[Risk Factors](#)" on page S-6 of this prospectus supplement, on page 2 of the accompanying prospectus, as well as in our periodic reports filed with the Securities and Exchange Commission and incorporated by reference herein, for a discussion of important risks that you should consider before making an investment decision.

	Per Share and Accompanying Warrant	Total
Public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds, before expenses, to us	\$	\$

⁽¹⁾ See "Underwriting" on page S-17 of this prospectus supplement for a description of the compensation payable to the underwriter.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Oppenheimer & Co.

The date of this prospectus supplement is _____, 2012.

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Prospectus dated July 29, 2011

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This prospectus supplement is not complete without, and may not be utilized except in connection with, the accompanying prospectus dated July 29, 2011 and any amendments to such prospectus. This prospectus supplement provides supplemental information regarding the Company, updates and changes information contained in the accompanying prospectus and describes the specific terms of this offering. The accompanying prospectus gives more general information, some of which may not apply to this offering. We incorporate by reference important information into this prospectus supplement and the accompanying prospectus. You may obtain the information incorporated by reference into this prospectus supplement and the accompanying prospectus without charge by following the instructions under “Where You Can Find More Information” in the accompanying prospectus. You should carefully read both this prospectus supplement and the accompanying prospectus, as well as additional information described under “Documents Incorporated by Reference,” before deciding to invest in shares of our common stock and warrants to purchase shares of our common stock. If the information in, or incorporated by reference in, this prospectus supplement conflicts with information in the accompanying prospectus or a document incorporated by reference herein or therein, the information in, or incorporated by reference in, this prospectus supplement shall control. All references in this prospectus supplement to “MicroVision,” “the Company,” “we,” “us” or “our” mean MicroVision, Inc., unless we state otherwise or the context otherwise requires.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and the underwriter has not, authorized anyone to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. We are not, and the underwriter is not, making an offer to sell these securities under any circumstance or in any jurisdiction where the offer is not permitted or unlawful. You should assume that the information contained in this prospectus supplement and the accompanying prospectus is accurate only as of their respective dates, and that any information in documents that we have incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations, cash flows and prospects may have changed since those dates.

STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

This prospectus supplement and the accompanying prospectus and the documents incorporated herein and therein by reference include or incorporate by reference forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words “anticipate,” “believe,” “estimate,” “will,” “may,” “intend” and “expect” and similar expressions generally identify forward-looking statements. Although we believe that our plans, intentions and expectations reflected in the forward-looking statements are reasonable, we cannot be sure that they will be achieved. Important factors that could cause actual results to differ materially from our forward-looking statements are set forth in the section entitled “Risk Factors” in this prospectus supplement, in the section entitled “Risk Factors” in the accompanying prospectus, and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. These factors are not intended to represent a complete list of the general or specific factors that may affect us. It should be recognized that other factors, including general economic factors and business strategies, may be significant, now or in the future, and the factors set forth in this prospectus supplement and the accompanying prospectus may affect us to a greater extent than indicated. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements set forth in or incorporated into this prospectus supplement and the accompanying prospectus. Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

PROSPECTUS SUPPLEMENT SUMMARY

The following summary is qualified in its entirety by, and should be read together with, the more detailed information and our consolidated financial statements and related notes thereto appearing elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. Before you decide to invest in our securities, you should read the entire prospectus supplement and the accompanying prospectus carefully, including the risk factors and the financial statements and related notes included or incorporated by reference in this prospectus supplement and the accompanying prospectus.

Our Company

Overview

We are developing high-resolution miniature laser display and imaging engines based upon our proprietary PicoP® display engine technology. Our PicoP technology utilizes our widely patented expertise in two dimensional Micro-Electrical Mechanical Systems (MEMS), lasers, optics and electronics to create a high quality video or still image from a small form factor device with lower power needs than conventional display technologies. Our strategy is to develop and supply PicoP display engines directly or through licensing of our patents and sale of key components to original equipment manufacturers (OEMs) that would embed them into a variety of consumer, automotive, enterprise and industrial products. In markets requiring high volume production of the PicoP display engine components or subsystems that are to be integrated with other components, we plan to provide designs for components, subsystems and systems to OEMs under licensing arrangements.

The primary objective for consumer applications is to provide users of mobile consumer devices such as smartphones, media players, tablet PCs, and other consumer electronic products with a large screen viewing experience produced by a small embedded projector. These potential products would allow users to watch movies and videos, play video games, display images and other data onto a variety of surfaces, freeing users from the limitations of a small, palm-sized screen. The current PicoP technology could be modified to be embedded into a pair of glasses to provide the mobile user with a see-through or occluded personal display to view movies, play games or access other content.

The PicoP technology could be embedded into a vehicle or integrated into a portable aftermarket device to create a high-resolution head-up display (HUD) that could project point-by-point navigation, critical operational, safety and other information important to the vehicle operator.

The enterprise products employing our technology would allow users in field-based professions such as service repair or sales to view and share information such as schematics for equipment repair and sales data and orders within CRM applications on a larger, more user-friendly interface. We also see potential for embedding the PicoP laser display engine in industrial products where our displays could be used for 3D measuring and digital signage, enhancing the overall user experience of these applications.

We currently market and sell our SHOWWX™ line of accessory pico projectors that use our Pico display engine through a network of global distributors. We continue to enter into a limited number of development agreements with commercial and U.S. government customers to develop advanced prototypes and demonstration units based on our light scanning technologies.

In February 2012, we announced our plan to transition to an “Image by PicoP” ingredient brand business model under which we will pursue commercialization of our PicoP display engine technology by licensing our technology and selling key components to OEMs who would design and build products using the PicoP technology. We expect to make our next-generation HD PicoP display engine technology based on direct green lasers (PicoP Gen2) available to OEMs this year.

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Corporate Information

MicroVision was founded in 1993 as a Washington corporation and reincorporated in 2003 under the laws of the State of Delaware. Our principal office is located at 6222 185th Avenue NE, Redmond WA 98052 and our telephone number is 425-936-6847. We maintain a website at www.microvision.com, where general information about us is available. We do not incorporate the information on our website into this prospectus supplement or the accompanying prospectus and you should not consider it part of this prospectus supplement or the accompanying prospectus.

The Offering

Common stock we are offering	shares
Common stock to be outstanding after this offering	shares
Warrants we are offering	We are offering warrants to purchase _____ shares of common stock, which will be exercisable beginning on the _____ year anniversary of issuance until the _____ year anniversary of issuance at an exercise price per share equal to \$ _____. We are not registering hereunder the shares of common stock issuable from time to time upon exercise of the warrants. For additional information regarding the warrants, see “Description of Securities We are Offering — Warrants.”
Listing	Our common stock is listed on the NASDAQ Global Market under the symbol “MVIS.” There is no established public trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange or other nationally recognized trading system.
Use of proceeds	The net proceeds from the sale of common stock and warrants offered by this prospectus supplement will be used for general corporate purposes. See “Use of Proceeds.”
Risk factors	See “Risk Factors” on page S-6 of this prospectus supplement and on page 2 of the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our securities.

The number of shares of common stock to be outstanding after this offering is based on 20,691,507 shares outstanding as of June 12, 2012 and excludes 1,033,455 shares issuable upon exercise of outstanding options (and unvested stock awards), 3,283,648 shares issuable upon exercise of outstanding warrants, 1,039,970 shares reserved for issuance pursuant to our 2006 Incentive Plan and an aggregate of _____ shares of common stock issuable upon the exercise of the warrants to be offered in this offering.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider all of the information in this prospectus supplement and the accompanying prospectus, including the risks and uncertainties described below, and all other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, before you decide whether to purchase our securities. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the trading price of our common stock could decline and you could lose all or part of your investment.

Risks Related to Our Common Stock, Warrants and this Offering

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow, and could cause the price of our common stock to decline.

If you purchase the common stock sold in this offering, you will experience immediate and substantial dilution in your investment. You will experience further dilution if we issue additional equity securities in future fundraising transactions.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution with respect to the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of \$ per share and our net tangible book value as of March 31, 2012, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$ per share with respect to the net tangible book value of the common stock. See the section entitled "Dilution" on page S-17 of this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

If we issue additional common stock, or securities convertible into or exchangeable or exercisable for common stock following the expiration of the lock-up agreement we entered into with the underwriter as described in the section entitled "Underwriting," our stockholders, including investors who purchase shares of common stock in this offering, could experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock.

There is no public market for the warrants in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange or other nationally recognized trading system. Without an active market, the liquidity of the warrants will be limited.

Risks Related Relating to the MicroVision Business

We have a history of operating losses and expect to incur significant losses in the future.

We have had substantial losses since our inception. We cannot assure you that we will ever become or remain profitable.

- As of March 31, 2012, we had an accumulated deficit of \$424.6 million.
- We incurred consolidated net losses of \$331.5 million from inception through 2009, \$47.5 million in 2010, \$35.8 million in 2011, and a net loss of \$9.8 million in the three months ended March 31, 2012.

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The likelihood of our success must be considered in light of the expenses, difficulties and delays frequently encountered by companies formed to develop and market new technologies. In particular, our operations to date have focused primarily on research and development of our technology platform and development of demonstration units. We are unable to accurately estimate future revenues and operating expenses based upon historical performance.

We cannot be certain that we will succeed in obtaining additional development contracts or that we will be able to obtain substantial customer orders for our products. In light of these factors, we expect to continue to incur substantial losses and negative cash flow at least through 2012 and likely thereafter. We cannot be certain that we will achieve positive cash flow at any time in the future.

We will require additional capital to fund our operations and to implement our business plan. If we do not obtain additional capital, we may be required to curtail our operations substantially. Raising additional capital may dilute the value of current shareholders' shares.

Based on our current operating plan, before giving effect to the proceeds of this offering, we anticipate that we have sufficient cash and cash equivalents to fund our operations through October 2012. We will require additional cash to fund our operating plan past that time. We are introducing new technology into an emerging market which creates significant uncertainty about our ability to accurately project revenue, costs and cash flows. If the level of sales anticipated by our financial plan is not achieved or our working capital requirements are higher than planned, we will need to raise additional cash sooner or take actions to reduce operating expenses. We plan to obtain additional cash through the issuance of equity or debt securities and through the monetization of select patents that we believe are not core to our business.

Our capital requirements will depend on many factors, including, but not limited to, the rate at which we can, directly or through arrangements with original equipment manufacturers, introduce products incorporating the PicoP display engine and image capture technologies and the market acceptance and competitive position of such products. If revenues are less than we anticipate, if the mix of revenues varies from anticipated amounts or if expenses exceed the amounts budgeted, we may require additional capital earlier than expected to fund our operations. In addition, our operating plan provides for the development of strategic relationships with systems and equipment manufacturers that may require additional investments by us.

Additional capital may not be available to us, or if available, on terms acceptable to us or on a timely basis. Raising additional capital may involve issuing securities with rights and preferences that are senior to our common stock and may dilute the value of current shareholders' shares. If adequate funds are not available on a timely basis we intend to consider limiting our operations substantially to extend out funds as we pursue other financing opportunities and business relationships. This limitation of operations would include significant reductions in staff and operating costs.

We are dependent on third parties in order to develop, manufacture, sell and market our products.

Our strategy for commercializing our technology and products incorporating the PicoP display engine technology includes entering into cooperative development, manufacturing, sales and marketing arrangements with corporate partners, original equipment manufacturers and other third parties. We cannot be certain that we will be able to negotiate arrangements on acceptable terms, if at all, or that these arrangements will be successful in yielding commercially viable products. If we cannot establish these arrangements, we would require additional capital to undertake such activities on our own and would require extensive manufacturing, sales and marketing expertise that we do not currently possess and that may be difficult to obtain. In addition, we could encounter significant delays in introducing the PicoP display engine technology or find that the development, manufacture or sale of products incorporating the PicoP display engine would not be feasible. To the extent that we enter into cooperative development, sales and marketing or other joint venture arrangements, our revenues will depend upon the performance of third parties. We cannot be certain that any such arrangements will be successful.

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We cannot be certain that our technology platform or products incorporating our PicoP display engine will achieve market acceptance. If products incorporating the PicoP display engine do not achieve market acceptance, our revenues may not grow.

Our success will depend in part on customer acceptance of the PicoP display engine. The PicoP display engine may not be accepted by manufacturers who use display technologies in their products, by systems integrators who incorporate our products into their products or by end users of these products. To be accepted, the PicoP display engine must meet the expectations of our potential customers in the consumer, automotive, industrial, and medical markets. If our technology fails to achieve market acceptance, we may not be able to continue to develop our technology platform.

Future products based on our PicoP technology are dependent on advances in technology by other companies.

Our PicoP technology will continue to rely on technologies, such as light sources, MEMS and optical components that are developed and produced by other companies. The commercial success of certain future products based on our technology will depend in part on advances in these and other technologies by other companies. We may, from time to time, contract with and support companies developing key technologies in order to accelerate the development of them for our or our customers' specific uses. There are no guarantees that such activities will result in useful technologies or components for us.

We are dependent on a small number of customers for our revenue. Our quarterly performance may vary substantially and this variance, as well as general market conditions, may cause our stock price to fluctuate greatly and potentially expose us to litigation.

Since 2010, most of our revenues have been generated from product sales to a limited number of customers and distribution partners. Our quarterly operating results may vary significantly based on:

- commercial acceptance of our PicoP-based products;
- the rate at which our distributors can achieve sell through of our products;
- changes in evaluations and recommendations by any securities analysts following our stock or our industry generally;
- announcements by other companies in our industry;
- changes in business or regulatory conditions;
- announcements or implementation by our competitors of technological innovations or new products;
- the status of particular development programs and the timing of performance under specific development agreements;
- economic and stock market conditions; or
- other factors unrelated to our company or industry.

In one or more future quarters, our results of operations may fall below the expectations of securities analysts and investors and the trading price of our common stock may decline as a consequence. In addition, following periods of volatility in the market price of a company's securities, shareholders often have instituted securities class action litigation against that company. If we become involved in a class action suit, it could divert the attention of management, and, if adversely determined, could require us to pay substantial damages.

We or our customers may fail to perform under open orders, which could adversely affect our operating results and cash flows.

Our backlog of open orders totaled \$1.5 million as of March 31, 2012. We may be unable to meet the performance requirements, including performance specifications or delivery dates, required by such purchase orders. Further, our customers may be unable or unwilling to perform their obligations there under on a timely basis or at all if, among other reasons, our products and technologies do not achieve market acceptance, our customers' products and technologies do not achieve market acceptance or our customers otherwise fail to achieve their operating goals. To the extent we are unable to perform under such purchase orders or to the extent customers are unable or unwilling to perform, our operating results and cash flows could be adversely affected.

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It may become more difficult to sell our stock in the public market or maintain our listing on the NASDAQ Global Market.

Our common stock is listed for quotation on The NASDAQ Global Market. To keep our listing on this market, we must meet NASDAQ's listing maintenance standards. If we are unable to continue to meet NASDAQ's listing maintenance standards for any reason, our common stock could be delisted from The NASDAQ Global Market. If our common stock were delisted, we likely would seek to list the common stock on the NASDAQ Capital Market, the American Stock Exchange or on a regional stock exchange. Listing on such other market or exchange could reduce the liquidity of our common stock. If our common stock were not listed on the NASDAQ Capital Market or an exchange, trading of our common stock would be conducted in the over-the-counter market on an electronic bulletin board established for unlisted securities or directly through market makers in our common stock. If our common stock were to trade in the over-the-counter market, an investor would find it more difficult to dispose of, or to obtain accurate quotations for the price of, the common stock. A delisting from The NASDAQ Global Market and failure to obtain listing on such other market or exchange would subject our securities to so-called penny stock rules that impose additional sales practice and market-making requirements on broker-dealers who sell or make a market in such securities. Consequently, removal from The NASDAQ Global Market and failure to obtain listing on another market or exchange could affect the ability or willingness of broker-dealers to sell or make a market in our common stock and the ability of purchasers of our common stock to sell their securities in the secondary market. In addition, when the market price of our common stock is less than \$5.00 per share, we become subject to penny stock rules even if our common stock is still listed on The NASDAQ Global Market. While the penny stock rules should not affect the quotation of our common stock on The NASDAQ Global Market, these rules may further limit the market liquidity of our common stock and the ability of investors to sell our common stock in the secondary market. The market price of our stock has mostly traded below \$5.00 per share during 2011, 2010, and 2009. On June 13, 2012, the closing price of our stock was \$2.91.

Our lack of financial and technical resources relative to our competitors may limit our revenues, potential profits, overall market share or value.

Our current products and potential future products will compete with established manufacturers of existing products and companies developing new technologies. Many of our competitors have substantially greater financial, technical and other resources than we have. Because of their greater resources, our competitors may develop products or technologies that are superior to our own. The introduction of superior competing products or technologies could result in reduced revenues, lower margins or loss of market share, any of which could reduce the value of our business.

We may not be able to keep up with rapid technological change and our financial results may suffer.

The information display industry has been characterized by rapidly changing technology, accelerated product obsolescence and continuously evolving industry standards. Our success will depend upon our ability to further develop our technology platform and to cost effectively introduce new products and features in a timely manner to meet evolving customer requirements and compete with competitors' product advances.

We may not succeed in these efforts because of:

- delays in product development;
- lack of market acceptance for our products; or
- lack of funds to invest in product development and marketing.

The occurrence of any of the above factors could result in decreased revenues, market share and value.

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We could face lawsuits related to our use of the PicoP display engine or other technologies. Defending these suits would be costly and time consuming. An adverse outcome in any such matter could limit our ability to commercialize our technology and products, reduce our revenues and increase our operating expenses.

We are aware of several patents held by third parties that relate to certain aspects of light scanning displays and image capture products. These patents could be used as a basis to challenge the validity, limit the scope or limit our ability to obtain additional or broader patent rights of our patents or patents we have licensed. A successful challenge to the validity of our patents or patents we have licensed could limit our ability to commercialize our technology and the PicoP display engine and, consequently, materially reduce our revenues. Moreover, we cannot be certain that patent holders or other third parties will not claim infringement by us with respect to current and future technology. Because U.S. patent applications are held and examined in secrecy, it is also possible that presently pending U.S. applications will eventually be issued with claims that will be infringed by our products or our technology. The defense and prosecution of a patent suit would be costly and time consuming, even if the outcome were ultimately favorable to us. An adverse outcome in the defense of a patent suit could subject us to significant costs, to require others and us to cease selling products that incorporate the PicoP display engine, to cease licensing our technology or to require disputed rights to be licensed from third parties. Such licenses, if available, would increase our operating expenses. Moreover, if claims of infringement are asserted against our future co-development partners or customers, those partners or customers may seek indemnification from us for damages or expenses they incur.

If we fail to manage expansion effectively, our revenue and expenses could be adversely affected.

Our ability to successfully offer products and implement our business plan in a rapidly evolving market requires an effective planning and management process. The growth in business and relationships with customers and other third parties has placed, and will continue to place, a significant strain on our management systems and resources. We will need to continue to improve our financial and managerial controls, reporting systems and procedures and will need to continue to train and manage our work force.

Our products may be subject to future health and safety regulations that could increase our development and production costs.

Products incorporating the PicoP display engine could become subject to new health and safety regulations that would reduce our ability to commercialize the PicoP display engine. Compliance with any such new regulations would likely increase our cost to develop and produce products using the PicoP display engine and adversely affect our financial results.

Our dependence on sales to distributors increases the risks of managing our supply chain and may result in excess inventory or inventory shortages.

We expect the majority of our distributor relationships for our accessory pico projector and its accessories to involve the distributor taking inventory positions and reselling to multiple customers. With these distributor relationships, we would not recognize revenue until the distributors sell the product through to their end user customers. Our distributor relationships may reduce our ability to forecast sales and increases risks to our business. Since our distributors would act as intermediaries between us and the end user customers, we would be required to rely on our distributors to accurately report inventory levels and production forecasts. This may require us to manage a more complex supply chain and monitor the financial condition and credit worthiness of our distributors and the end user customers. Our failure to manage one or more of these risks could result in excess inventory or shortages that could adversely impact our operating results and financial condition.

Our operating results may be adversely impacted by worldwide political and economic uncertainties and specific conditions in the markets we address.

In the recent past, general worldwide economic conditions have experienced a downturn due to slower economic activity, concerns about inflation, increased energy costs, decreased consumer confidence, reduced corporate profits and capital spending, and adverse business conditions. Any continuation or worsening of the current global economic and financial conditions could materially adversely affect (i) our ability to raise, or the cost of, needed capital, (ii) demand for our current and future products and (iii) our ability to commercialize products. We cannot predict the timing, strength, or duration of any economic slowdown or subsequent economic recovery, worldwide, or in the display industry.

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Because we plan to continue using foreign contract manufacturers, our operating results could be harmed by economic, political, regulatory and other factors in foreign countries.

We currently use foreign manufacturers to manufacture future products, where appropriate. These international operations are subject to inherent risks, which may adversely affect us, including:

- political and economic instability;
- high levels of inflation, historically the case in a number of countries in Asia;
- burdens and costs of compliance with a variety of foreign laws;
- foreign taxes;
- changes in tariff rates or other trade and monetary policies; and
- changes or volatility in currency exchange rates.

If we have to qualify a new contract manufacturer or foundry for our products, we may experience delays that result in lost revenues and damaged customer relationships.

We rely on single suppliers to manufacture our PicoP display engine, our SHOWWX products and our MEMS chips in wafer form. The lead time required to establish a relationship with a new contract manufacturer or foundry is long, and it takes time to adapt a product's design to a particular manufacturer's processes. Accordingly, there is no readily available alternative source of supply for these products and components in high volumes. This could cause significant delays in shipping products if we have to change our source of supply and manufacture quickly, which may result in lost revenues and damaged customer relationships.

If we experience delays or failures in developing commercially viable products, we may have lower revenues.

We have begun sales of units incorporating the PicoP display engine. However, we must undertake additional research, development and testing before we are able to develop additional products for commercial sale. Product development delays by us or our potential product development partners, or the inability to enter into relationships with these partners, may delay or prevent us from introducing products for commercial sale.

Our success will depend, in part, on our ability to secure significant third-party manufacturing resources.

Our success depends, in part, on our ability to provide our components and future products in commercial quantities at competitive prices. Accordingly, we will be required to obtain access, through business partners or contract manufacturers, to manufacturing capacity and processes for the commercial production of our expected future products. We cannot be certain that we will successfully obtain access to sufficient manufacturing resources. Future manufacturing limitations of our suppliers could result in a limitation on the number of products incorporating our technology that we are able to produce.

If our licensors and we are unable to obtain effective intellectual property protection for our products and technology, we may be unable to compete with other companies.

Intellectual property protection for our products is important and uncertain. If we do not obtain effective intellectual property protection for our products, processes and technology, we may be subject to increased competition. Our commercial success will depend in part on our ability and the ability of our licensors to maintain the proprietary nature of the PicoP display and other key technologies by securing valid and enforceable patents and effectively maintaining unpatented technology as trade secrets. We try to protect our proprietary technology by seeking to

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obtain United States and foreign patents in our name, or licenses to third-party patents, related to proprietary technology, inventions, and improvements that may be important to the development of our business. However, our patent position and the patent position of our licensors involve complex legal and factual questions. The standards that the United States Patent and Trademark Office and its foreign counterparts use to grant patents are not always applied predictably or uniformly and can change. Additionally, the scope of patents are subject to interpretation by courts and their validity can be subject to challenges and defenses, including challenges and defenses based on the existence of prior art. Consequently, we cannot be certain as to the extent to which we will be able to obtain patents for our new products and technology or the extent to which the patents that we already own or license from others protect our products and technology. Reduction in scope of protection or invalidation of our licensed or owned patents, or our inability to obtain new patents, may enable other companies to develop products that compete with ours on the basis of the same or similar technology.

We also rely on the law of trade secrets to protect unpatented know-how and technology to maintain our competitive position. We try to protect this know-how and technology by limiting access to the trade secrets to those of our employees, contractors and partners with a need to know such information and by entering into confidentiality agreements with parties that have access to it, such as our employees, consultants and business partners. Any of these parties could breach the agreements and disclose our trade secrets or confidential information, or our competitors might learn of the information in some other way. If any trade secret not protected by a patent were to be disclosed to or independently developed by a competitor, our competitive position could be materially harmed.

We could be exposed to significant product liability claims that could be time-consuming and costly, divert management attention and adversely affect our ability to obtain and maintain insurance coverage.

We may be subject to product liability claims if any of our product applications are alleged to be defective or cause harmful effects. For example, because some of our PicoP displays are designed to scan a low power beam of colored light into the user's eye, the testing, manufacture, marketing and sale of these products involve an inherent risk that product liability claims will be asserted against us. Product liability claims or other claims related to our products, regardless of their outcome, could require us to spend significant time and money in litigation, divert management time and attention, require us to pay significant damages, harm our reputation or hinder acceptance of our products. Any successful product liability claim may prevent us from obtaining adequate product liability insurance in the future on commercially desirable or reasonable terms. An inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of our products.

Our development agreements have long sales cycles, which make it difficult to plan our expenses and forecast our revenues.

Our development agreements have lengthy sales cycles that involve numerous steps including determination of a product application, exploring the technical feasibility of a proposed product, evaluating the costs of manufacturing a product and manufacturing or contracting out the manufacturing of the product. Our long sales cycle, which can last several years, makes it difficult to predict the quarter in which contract signing and revenue recognition will occur. Delays in entering into development agreements could cause significant variability in our revenues and operating results for any particular quarterly period.

Our development contracts may not lead to products that will be profitable.

Our development contracts, including without limitation those discussed in this document, are exploratory in nature and are intended to develop new types of products for new applications. These efforts may prove unsuccessful and these relationships may not result in the development of products that will be profitable.

If we lose our rights under our third-party technology licenses, our operations could be adversely affected.

Our business depends in part on technology rights licensed from third parties. We could lose our exclusivity or other rights to use the technology under our licenses if we fail to comply with the terms and performance requirements of the licenses. In addition, certain licensors may terminate a license upon our breach and have the right to consent to sublicense arrangements. If we were to lose our rights under any of these licenses, or if we were unable to obtain required consents to future sublicenses, we could lose a competitive advantage in the market, and may even lose the ability to commercialize certain products completely. Either of these results could substantially decrease our revenues.

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Loss of any of our key personnel could have a negative effect on the operation of our business.

Our success depends on our executive officers and other key personnel and on the ability to attract and retain qualified new personnel. Achievement of our business objectives will require substantial additional expertise in the areas of sales and marketing, research and product development and manufacturing. Competition for qualified personnel in these fields is intense, and the inability to attract and retain additional highly skilled personnel, or the loss of key personnel, could reduce our revenues and adversely affect our business.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately \$ million, based on a public offering price of \$ per share of common stock and accompanying warrant, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any proceeds from the sale of common stock issuable upon exercise of the warrants that we are offering unless and until such warrants are exercised. If all of the warrants offered hereby are exercised for cash, we will receive additional proceeds of approximately \$. We will not pay the underwriter any fee with respect to shares of our common stock issued upon exercise of the warrants. We anticipate that the net proceeds from the sale of the securities offered under this prospectus supplement will be used for general corporate purposes, which may include, but are not limited to, working capital, capital expenditures, and acquisitions of other technologies. Pending the application of the net proceeds, we expect to invest the proceeds in investment-grade, interest-bearing instruments or other securities.

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering (i) _____ shares of our common stock and (ii) warrants to purchase _____ shares of our common stock.

Common Stock.

The material terms and provisions of our common stock are described under the caption “MicroVision Capital Stock” starting on page S-20 of the accompanying prospectus.

Warrants.

The following is a summary of the material attributes and characteristics of the warrants.

The warrants will be issued pursuant to one or more warrant agreements executed by us. Each warrant entitles the holder thereof to purchase shares of our common stock at an exercise price equal to \$ _____ per share. The warrants will be exercisable at any time beginning on the one-year anniversary of the date of issuance until the five-year anniversary of the date of this prospectus supplement. The warrants may be exercised by surrendering to the warrant agent the warrant certificate evidencing the warrants to be exercised with the accompanying exercise notice, appropriately completed, duly signed and delivered, together with cash payment of the exercise price, if applicable.

In the event of an extraordinary transaction, as described in the warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, in which the amount of the alternate consideration is less than the exercise price of the warrant, then we or any successor entity shall pay at the holder’s option, exercisable at any time concurrently with or within thirty (30) days after the consummation of the fundamental transaction, an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model.

The warrants contain weighted average anti-dilution protection upon the issuance of any common stock, securities convertible into common stock or certain other issuances at a price below the then-existing exercise price of the warrants, with certain exceptions. The terms of the warrants, including these anti-dilution protections, may make it difficult for us to raise additional capital at prevailing market terms in the future.

Upon surrender of the warrant certificate, with the exercise notice appropriately completed and duly signed and cash payment of the exercise price, if applicable, on and subject to the terms and conditions of the warrant agreement, we will deliver or cause to be delivered, to or upon the written order of such holder, the number of whole shares of common stock to which the holder is entitled, which shares may be delivered in book-entry form. If fewer than all of the warrants evidenced by a warrant certificate are to be exercised, a new warrant certificate will be issued for the remaining number of warrants.

In the underwriting agreement, we expect to agree to use commercially reasonable efforts to file a registration statement to register the issuance of shares underlying the warrants and have such registration statement declared effective by the one-year anniversary of the issuance of the warrants. If, and only if, a registration statement relating to the issuance of the shares underlying the warrants is not then effective or available, a holder of warrants would only be entitled to exercise the warrants on a cashless basis, where the holder receives the net value of the warrant in shares of common stock. Holders of warrants also will be able to exercise their warrants only if the shares of common stock underlying the warrant are qualified for sale or are at the time exempt from qualification under the applicable securities or blue sky laws of the states in which such holder (or other persons to whom it is proposed that shares be issued on exercise of the warrants) reside. Shares issued pursuant to a cashless exercise would be freely tradable without restriction or further registration under the Securities Act by persons other than our affiliates (within the meaning of Rule 144 under the Securities Act).

The exercise price and the number and type of securities purchasable upon exercise of warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of our assets and certain other events.

No fractional shares will be issued upon exercise of the warrants. The warrants do not confer upon holders any voting or other rights as stockholders of the Company.

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DILUTION

If you invest in our securities, your interest will be diluted by an amount equal to the difference between the public offering price and the net tangible book value per share of common stock after this offering. We calculate net tangible book value per share by dividing our net tangible book value (total assets less intangible assets and total liabilities) by the number of outstanding shares of common stock.

Our net tangible book value at March 31, 2012 was \$(625,000), or \$(.04) per share of common stock. After giving effect to the sale of _____ shares of common stock and warrants to purchase _____ shares of common stock in this offering at the price of \$ _____ per share and accompanying warrant, and our receipt of the net proceeds from the sale of those securities, our adjusted net tangible book value at March 31, 2012 would be \$ _____, or \$ _____ per share. This represents an immediate increase in as-adjusted net tangible book value of \$ _____ per share to existing shareholders and an immediate and substantial dilution of \$ _____ per share to new investors. The following table illustrates this per share dilution:

Public offering price per share and accompanying warrant	\$
Net tangible book value per share at March 31, 2012	\$(.04)
Increase in net tangible book value per share attributable to offering	\$
As-adjusted net tangible book value per share as of March 31, 2012, after giving effect to the offering	\$
Dilution per share to new investors in the offering	\$

These calculations exclude:

- 2,283,648 shares of common stock issuable upon exercise of warrants outstanding on March 31, 2012, all of which are exercisable at prices ranging from \$2.12 to \$28.80 per share;
- 1,067,028 shares of common stock issuable upon exercise of options (and unvested stock awards) outstanding as of March 31, 2012, of which approximately 738,669 shares are exercisable, under our 2006 Incentive Plan, as amended; and
- _____ shares of common stock issuable upon exercise of the warrants offered by this prospectus supplement.

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UNDERWRITING

We have entered into an underwriting agreement with Oppenheimer & Co. Inc., who will act as underwriter in the offering. Subject to the terms and conditions of the underwriting agreement, the underwriter has agreed to purchase all of the shares of common stock and warrants to purchase shares of our common stock offered by this prospectus supplement, if any are purchased.

The shares and warrants should be ready for delivery on or about June , 2012 against payment in immediately available funds. The underwriter is offering the shares and warrants subject to various conditions and may reject all or part of any order. The underwriter has advised us that it proposes to offer the shares and the warrants directly to the public at the public offering price that appears on the cover page of this prospectus supplement. After the shares and the warrants are released for sale to the public, the underwriter may change the offering price and other selling terms at various times.

The following table provides information regarding the amount of the discount to be paid to the underwriter by us:

	Per Share and Accompanying Warrant
Public offering price	\$
Underwriting discount	\$
Proceeds, before expenses to us	\$

We estimate that our total expenses of the offering, excluding the underwriting discount, will be approximately \$, which includes \$100,000 that we have agreed to reimburse the underwriter for the fees incurred by it in connection with the offering.

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act of 1933.

We and our executive officers and directors have agreed to a 90-day “lock up” with respect to shares of capital stock that they beneficially own, including securities that are convertible into shares of common stock and securities that are exchangeable or exercisable for shares of common stock. This means that, subject to certain exceptions, for a period of 90 days following the date of this prospectus supplement, we and such persons may not offer, sell, pledge or otherwise dispose of these securities without the prior written consent of Oppenheimer & Co. Inc.

The underwriter has informed us that it will not engage in over-allotment, stabilizing or syndicate covering transactions in connection with this offering.

Electronic Delivery of Prospectus Supplements: A prospectus supplement in electronic format may be delivered to potential investors by the underwriter participating in this offering. The prospectus supplement in electronic format will be identical to the paper version of such prospectus supplement. Other than the prospectus supplement in electronic format, the information on the underwriter’s web site and any information contained in any other web site maintained by the underwriter is not part of the prospectus supplement or the registration statement of which this prospectus supplement forms a part.

Notice to Non-US Investors

The offering is exclusively conducted under applicable private placement exemptions and therefore it has not been and will not be notified to, and this document or any other offering material relating to the shares or warrants has not been and will not be approved by, the Belgian Banking, Finance and Insurance Commission (“Commission bancaire, financière et des assurances/Commissie voor het Bank-, Financie- en Assurantiewezen”). Any representation to the contrary is unlawful.

The underwriter has undertaken not to offer, sell, resell, transfer or deliver directly or indirectly, any shares or warrants, or to take any steps relating/ancillary thereto, and not to distribute or publish this document or any other material relating to the shares or warrants or to the offering in a manner which would be construed as: (a) a public offering under the Belgian Royal Decree of 7 July 1999 on the public character of financial transactions; or (b) an offering of shares or warrants to the public under Directive 2003/71/EC which triggers an obligation to publish a prospectus in Belgium. Any action contrary to these restrictions will cause the recipient and the issuer to be in violation of the Belgian securities laws.

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Neither this prospectus supplement nor any other offering material relating to the shares or warrants has been submitted to the clearance procedures of the Autorité des marchés financiers in France. The shares have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this prospectus supplement nor any other offering material relating to the shares or warrants has been or will be: (a) released, issued, distributed or caused to be released, issued or distributed to the public in France; or (b) used in connection with any offer for subscription or sale of the shares or warrants to the public in France. Such offers, sales and distributions will be made in France only: (i) to qualified investors (investisseurs qualifiés) and/or to a restricted circle of investors (cercle restreint d'investisseurs), in each case investing for their own account, all as defined in and in accordance with Articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code monétaire et financier; (ii) to investment services providers authorised to engage in portfolio management on behalf of third parties; or (iii) in a transaction that, in accordance with article L.411-2-II-1°-or-2°-or 3° of the French Code monétaire et financier and Article 211-2 of the General Regulations (Règlement Général) of the Autorité des marchés financiers, does not constitute a public offer (appel public à l'épargne). Such shares may be resold only in compliance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code monétaire et financier.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares or warrants which are the subject of the offering contemplated by this prospectus supplement may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- (c) by the underwriter to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the underwriter for any such offer; or
- (d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares or warrants shall result in a requirement for the publication by the issuer or the underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares or warrants in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase any shares or warrants, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The underwriter has represented, warranted and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the "FSMA")) received by it in connection with the issue or sale of any shares in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and
- (b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares or warrants in, from or otherwise involving the United Kingdom.

In the State of Israel, the shares and warrants offered hereby may not be offered to any person or entity other than the following:

- (a) a fund for joint investments in trust (i.e., mutual fund), as such term is defined in the Law for Joint Investments in Trust, 5754-1994, or a management company of such a fund;
- (b) a provident fund as defined in Section 47(a)(2) of the Income Tax Ordinance of the State of Israel, or a management company of such a fund;

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- (c) an insurer, as defined in the Law for Oversight of Insurance Transactions, 5741-1981, (d) a banking entity or satellite entity, as such terms are defined in the Banking Law (Licensing), 5741-1981, other than a joint services company, acting for their own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- (d) a company that is licensed as a portfolio manager, as such term is defined in Section 8(b) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- (e) a company that is licensed as an investment advisor, as such term is defined in Section 7(c) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account;
- (f) a company that is a member of the Tel Aviv Stock Exchange, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- (g) an underwriter fulfilling the conditions of Section 56(c) of the Securities Law, 5728-1968;
- (h) a venture capital fund (defined as an entity primarily involved in investments in companies which, at the time of investment, (i) are primarily engaged in research and development or manufacture of new technological products or processes and (ii) involve above-average risk);
- (i) an entity primarily engaged in capital markets activities in which all of the equity owners meet one or more of the above criteria; and
- (j) an entity, other than an entity formed for the purpose of purchasing shares or warrants in this offering, in which the shareholders equity (including pursuant to foreign accounting rules, international accounting regulations and U.S. generally accepted accounting rules, as defined in the Securities Law Regulations (Preparation of Annual Financial Statements), 1993) is in excess of NIS 250 million.

Any offeree of the shares and warrants offered hereby in the State of Israel shall be required to submit written confirmation that it falls within the scope of one of the above criteria. This prospectus supplement will not be distributed or directed to investors in the State of Israel who do not fall within one of the above criteria.

The offering of the shares and warrants offered hereby in Italy has not been registered with the Commissione Nazionale per la Società e la Borsa (“CONSOB”) pursuant to Italian securities legislation and, accordingly, the shares offered hereby cannot be offered, sold or delivered in the Republic of Italy (“Italy”) nor may any copy of this prospectus supplement or any other document relating to the shares offered hereby be distributed in Italy other than to professional investors (operatori qualificati) as defined in Article 31, second paragraph, of CONSOB Regulation No. 11522 of 1 July, 1998, as subsequently amended. Any offer, sale or delivery of the shares and warrants offered hereby or distribution of copies of this prospectus supplement or any other document relating to the shares offered hereby in Italy must be made:

- (a) by an investment firm, bank or intermediary permitted to conduct such activities in Italy in accordance with Legislative Decree No. 58 of 24 February 1998 and Legislative Decree No. 385 of 1 September 1993 (the “Banking Act”);
- (b) in compliance with Article 129 of the Banking Act and the implementing guidelines of the Bank of Italy; and
- (c) in compliance with any other applicable laws and regulations and other possible requirements or limitations which may be imposed by Italian authorities.

This prospectus supplement has not been nor will it be registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this prospectus supplement may not be made available, nor may the shares or warrants offered hereunder be marketed and offered for sale in Sweden, other than under circumstances which are deemed not to require a prospectus under the Financial Instruments Trading Act (1991: 980). This offering will be made to no more than 100 persons or entities in Sweden.

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The shares and warrants offered pursuant to this prospectus supplement will not be offered, directly or indirectly, to the public in Switzerland and this prospectus supplement does not constitute a public offering prospectus as that term is understood pursuant to art. 652a or art. 1156 of the Swiss Federal Code of Obligations. The issuer has not applied for a listing of the shares or warrants being offered pursuant to this prospectus supplement on the SWX Swiss Exchange or on any other regulated securities market, and consequently, the information presented in this prospectus supplement does not necessarily comply with the information standards set out in the relevant listing rules. The shares and warrants being offered pursuant to this prospectus supplement have not been registered with the Swiss Federal Banking Commission as foreign investment funds, and the investor protection afforded to acquirers of investment fund certificates does not extend to acquirers of shares or warrants.

Investors are advised to contact their legal, financial or tax advisers to obtain an independent assessment of the financial and tax consequences of an investment in shares and warrants.

MICROVISION CAPITAL STOCK

Our Certificate of Incorporation, as amended, authorizes us to issue 100,000,000 shares of common stock, \$.001 par value per share, and 25,000,000 shares of preferred stock, \$.001 par value per share. As of June 12, 2012, there were 20,691,507 shares of common stock, and no shares of preferred stock, outstanding.

Common Stock. All outstanding common stock is, and any stock issued under this prospectus will be, fully paid and nonassessable. Subject to the rights of the holders of our outstanding preferred stock, holders of common stock:

- are entitled to any dividends validly declared;
- will share ratably in our net assets in the event of a liquidation; and
- are entitled to one vote per share.

The common stock has no conversion rights. Holders of common stock have no preemption, subscription, redemption, or call rights related to those shares.

American Stock Transfer & Trust Company is the transfer agent and registrar for our common stock.

Preferred Stock. The Board of Directors has the authority, without further action by the shareholders, to issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by the shareholders. The issuance of preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation may have the effect of delaying, deferring or preventing a change in control of MicroVision, which could depress the market price of our common stock. We currently have no shares of preferred stock outstanding.

LEGAL MATTERS

The validity of the common stock and warrants being offered hereby will be passed upon by Ropes & Gray LLP, Boston, Massachusetts. Goodwin Procter LLP, New York, New York, is acting as counsel for the underwriter in connection with various legal matters relating to the common stock and warrants offered hereby.

DOCUMENTS INCORPORATED BY REFERENCE

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. These documents are on file with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by contacting the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public from the SEC's website at www.sec.gov.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3, including amendments, relating to the common stock and warrants to purchase common stock offered by this prospectus supplement and the accompanying prospectus, which have been filed with the SEC. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits and schedules thereto, certain parts of which are omitted in accordance with the rules and regulations of the SEC. Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of that contract or other document filed as an exhibit to the registration statement. For further information about us and the common stock and warrants offered by this prospectus supplement and the accompanying prospectus we refer you to the registration statement and the exhibits and schedules which may be obtained as described above.

The SEC allows us to "incorporate by reference" the information contained in documents that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus. Information in the accompanying prospectus supersedes information incorporated by reference that we filed with the SEC before the date of the prospectus, and information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC before the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement and the accompanying prospectus or incorporated by reference. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the time that all securities covered by this prospectus supplement have been sold; provided, however, that we are not incorporating any information furnished under any of Item 2.02 or Item 7.01 of any current report on Form 8-K:

- Our Annual Report on Form 10-K for the year ended December 31, 2011;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012;
- Our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 26, 2012;
- Our Current Reports on Form 8-K filed with the SEC on January 26, 2012, February 17, 2012, May 22, 2012 and June 11, 2012; and
- The description of our common stock set forth in Amendment No. 1 to our Registration Statement on Form SB-2 (Registration No. 333-5276-LA), including any amendment or report filed for the purpose of updating such description, as incorporated by reference in our Registration Statement on Form 8-A (Registration No. 0-21221).

PROSPECTUS

\$35,000,000

MICROVISION, INC.

**Common Stock
Preferred Stock
Warrants**

We may sell from time to time up to \$35,000,000 of our common stock, preferred stock, or warrants in one or more transactions.

We will provide specific terms of these securities and offerings in supplements to this prospectus. You should read this prospectus and any supplement carefully before you invest.

Our common stock is traded on the NASDAQ Global Market under the symbol "MVIS." On July 27, 2011 the closing price of our common stock on the NASDAQ Global Market was \$1.05 per share.

The securities offered in this prospectus involve a high degree of risk. See "[Risk Factors](#)" on page 2.

Our executive offices are located at 6222 185th Avenue NE, Redmond, Washington 98052, and our telephone number is (425) 936-6847.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is July 29, 2011.

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FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference in this prospectus contain forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and is subject to the safe harbor created by that section. Such statements may include, but are not limited to, projections of revenues, income or loss, capital expenditures, plans for product development and cooperative arrangements, future operations, financing needs or plans of MicroVision, as well as assumptions relating to the foregoing. The words “anticipate,” “believe,” “estimate,” “expect,” “goal,” “may,” “plan,” “project,” “will,” and similar expressions identify forward-looking statements, which speak only as of the date the statement was made.

These forward-looking statements are not guarantees of future performance. Factors that could cause actual results to differ materially from those projected in our forward-looking statements include the following: our ability to obtain financing; market acceptance of our technologies and products; our financial and technical resources relative to those of our competitors; our ability to keep up with rapid technological change; government regulation of our technologies; our ability to enforce our intellectual property rights and protect our proprietary technologies; the ability to obtain additional contract awards and to develop partnership opportunities; the timing of commercial product launches; the ability to achieve key technical milestones in key products; and other factors set forth in the section entitled “Risk Factors” below, and in the documents incorporated by reference into this prospectus. These factors are not intended to represent a complete list of the general or specific factors that may affect us. It should be recognized that other factors, including general economic factors and business strategies, may be significant, now or in the future, and the factors set forth in this prospectus may affect us to a greater extent than indicated. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements set forth in or incorporated into this prospectus. Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

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RISK FACTORS

You should carefully consider the specific risks set forth under the caption “Risk Factors” in our most recent annual report on Form 10-K, which is incorporated by reference in this prospectus, as the same may be amended, supplemented or superseded by our subsequent quarterly reports or other filings, including filings after the date hereof, with the Securities and Exchange Commission under the Exchange Act. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the trading price of our common stock could decline, and you could lose all or part of your investment.

THE COMPANY

MicroVision, Inc. (references in this registration statement to “MicroVision,” the “Company,” the “registrant,” and “we” refer to Microvision, Inc.) MicroVision provides the PicoP® display technology platform designed to enable next-generation display and imaging products for pico projectors, vehicle displays and wearable displays that interface with mobile devices. The Company’s projection display engine uses highly efficient laser light sources that create vivid images with high contrast and brightness.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we anticipate that the net proceeds from the sale of the securities offered under this prospectus will be used for general corporate purposes, which may include, but are not limited to, working capital, capital expenditures, and acquisitions of other technologies. The prospectus supplement relating to specific sales of our securities hereunder will set forth our intended use for the net proceeds we receive from the sales. Pending the application of the net proceeds, we expect to invest the proceeds in investment-grade, interest-bearing instruments or other securities.

RATIO OF COMBINED FIXED CHARGES AND PREFERENCE DIVIDENDS TO EARNINGS

As we have incurred losses in each of the periods presented below, our earnings were inadequate to cover fixed charges and preference dividends, if any, by the following amounts (in thousands):

	THREE MONTHS	FISCAL YEAR ENDED DECEMBER 31,				
	ENDED MARCH 31,	2006	2007	2008	2009	2010
	2011					
Additional earnings required to cover fixed charges	\$ 9,037	\$32,432	\$26,393	\$32,620	\$39,529	\$47,460

Our deficiency of combined fixed charges and preference dividends to earnings for each of the periods referred to above has been computed on a consolidated basis and should be read in conjunction with the consolidated financial statements, including the notes thereto, and other information set forth in the reports filed by us with the SEC. Please refer to Exhibit 12 filed with the registration statement of which this prospectus constitutes a part for additional information regarding the ratio of earnings to cover fixed charges and preference dividends, if any.

DESCRIPTION OF CAPITAL STOCK

Our Certificate of Incorporation authorizes us to issue 200,000,000 shares of common stock, \$.001 par value per share, and 25,000,000 shares of preferred stock, \$.001 par value per share. As of July 6, there were 108,265,679 shares of common stock, and no shares of preferred stock, outstanding.

Common Stock. All outstanding common stock is, and any stock issued under this prospectus will be, fully paid and nonassessable. Subject to the rights of the holders of our outstanding preferred stock, holders of common stock:

- are entitled to any dividends validly declared;
- will share ratably in our net assets in the event of a liquidation; and
- are entitled to one vote per share.

The common stock has no conversion rights. Holders of common stock have no preemption, subscription, redemption, or call rights related to those shares.

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American Stock Transfer & Trust Company is the transfer agent and registrar for our common stock.

Preferred Stock. The Board of Directors has the authority, without further action by the shareholders, to issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by the shareholders. The issuance of preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation may have the effect of delaying, deferring or preventing a change in control of MicroVision, which could depress the market price of our common stock. We currently have no shares of preferred stock outstanding. If we offer preferred stock, the terms of that series of preferred stock will be set forth in the prospectus supplement relating to that series.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock, preferred stock, warrants or units of any combination of the foregoing securities. Each series of warrants will be issued under a warrant agreement all as set forth in the prospectus supplement or term sheet relating to the warrants offered hereby. A copy of the form of warrant agreement, including any form of warrant certificates representing the warrants, reflecting the provisions to be included in the warrant agreements and/or warrant certificates that will be entered into with respect to particular offerings of warrants, will be filed as an exhibit to a Form 8-K to be incorporated into the registration statement of which this prospectus constitutes a part prior to the issuance of any warrants.

The applicable prospectus supplement or term sheet will describe the terms of the warrants offered thereby, any warrant agreement relating to such warrants and the warrant certificates, including but not limited to the following:

- the offering price or prices;
- the aggregate amount of securities that may be purchased upon exercise of such warrants and minimum number of warrants that are exercisable;
- the number of securities, if any, with which such warrants are being offered and the number of such warrants being offered with each security;
- the date on and after which such warrants and the related securities, if any, will be transferable separately;
- the amount of securities purchasable upon exercise of each warrant and the price at which the securities may be purchased upon such exercise, and events or conditions under which the amount of securities may be subject to adjustment;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- the circumstances, if any, which will cause the warrants to be deemed to be automatically exercised;
- any material risk factors, if any, relating to such warrants;
- the identity of any warrant agent; and
- any other terms of such warrants (which shall not be inconsistent with the provisions of the warrant agreement).

Prior to the exercise of any warrants, holders of such warrants will not have any rights of holders of the securities purchasable upon such exercise, including the right to receive payments of dividends, if any, on the securities purchasable upon such exercise, statutory appraisal rights or the right to vote such underlying securities.

Prospective purchasers of warrants should be aware that material U.S. federal income tax, accounting and other considerations may be applicable to instruments such as warrants.

PLAN OF DISTRIBUTION

General. We may sell the securities offered hereby directly to one or more purchasers, through agents, or through underwriters or dealers designated from time to time. The distribution of securities may be effected from time to time in one or more transactions at a fixed price or prices (which may be changed from time to time), at market prices prevailing at the times of sale, at prices related to these prevailing market prices or at negotiated prices. The applicable prospectus supplement will describe the terms of the offering of the securities, including

- the terms of the securities to which such prospectus supplement relates;
- the name or names of any underwriters, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation; and
- any discounts or concessions allowed or reallocated or paid to dealers.

Underwriters named in the prospectus supplement, if any, are only underwriters of the securities offered with the prospectus supplement.

Sales Directly to Purchasers. We may enter into agreements directly with one or more purchasers. Such agreements may provide for the sale of securities at a fixed price, based on the market price of the securities or otherwise.

Use of Underwriters and Agents. If underwriters are used in the sale of securities, they will acquire the securities for their own account and may resell them from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The securities may be offered to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time.

Securities may be sold directly to or through agents from time to time. Any agent involved in the offering and sale of securities will be named and any commissions paid to the agent will be described in the prospectus supplement. Unless the prospectus supplement states otherwise, any agent will act on a best-efforts basis for the period of its appointment. Agents or underwriters may be authorized to solicit offers by certain types of institutional investors to purchase securities at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The conditions to these contracts and the commissions paid for solicitation of these contracts will be described in the prospectus supplement. We may engage in "at the market" offerings only of our common stock. An "at the market" offering is defined in Rule 415(a)(4) under the Securities Act of 1933, as amended, or the Securities Act, as an offering of equity securities into an existing trading market for outstanding shares of the same class at other than a fixed price.

Deemed Underwriters. In connection with the sale of the securities offered with this prospectus, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities for whom they may act as agents, in the form of discounts, concessions or commissions. The underwriters, dealers or agents which participate in the distribution of the securities may be deemed to be underwriters under the Securities Act of 1933, as amended, or the Securities Act, and any discounts or commissions received by them and any profit on the resale of the securities received by them may be deemed to be underwriting discounts and commissions under the Securities Act. Anyone deemed to be an underwriter under the Securities Act may be subject to statutory liabilities, including Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act.

Indemnification and Other Relationships. We may provide agents and underwriters with indemnification against certain civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

Listing of Securities. Except as indicated in the applicable prospectus supplement, the securities are not expected to be listed on a securities exchange or market, except for the common stock, which will be listed on the NASDAQ Global Market, and any underwriters or dealers will not be obligated to make a market in securities. We cannot predict the activity or liquidity or any trading in the securities.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public from the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and the information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the time that all securities covered by this prospectus have been sold; provided, however, that we are not incorporating any information furnished under any of Item 2.02 or Item 7.01 of any current report on Form 8-K:

- Our annual report on Form 10-K for the year ended December 31, 2010, filed on March 10, 2011;
- Our quarterly report on Form 10-Q filed with the SEC on May 9, 2011;
- Our current reports on Form 8-K filed with the SEC on June 10, 2011 and May 6, 2011;
- Any other filings we make pursuant to the Exchange Act after the filing date of the initial registration statement and prior to effectiveness of the registration statement; and
- The description of our common stock set forth in Amendment No. 1 to our Registration Statement on Form SB-2 (Registration No. 333-5276-LA), including any amendment or report filed for the purpose of updating such description, as incorporated by reference in our Registration Statement on Form 8-A (Registration No. 0-21221).

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

MicroVision, Inc.
6222 185th Avenue NE
Redmond, Washington 98052
Attention: Investor Relations
(425) 936-6847

This prospectus is part of a registration statement that we have filed with the SEC. You should rely only on the information or representations provided in this prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document.

LEGAL OPINION

For the purpose of this offering, Ropes & Gray LLP, Boston, Massachusetts, is giving its opinion on the validity of the securities offered hereby.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2010 have been so incorporated in reliance on the report(s) (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Shares of Common Stock
Warrants to Purchase Shares of Common Stock

MICROVISION, INC.

PROSPECTUS SUPPLEMENT

, 2012

Oppenheimer & Co.