Form S-8 November 14, 2011 As filed with the Securities and Exchange Commission on November 14, 2011 Registration No. 333-____ UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM S-8 REGISTRATION STATEMENT Under The Securities Act of 1933 AEHR TEST SYSTEMS (Exact name of Registrant as specified in its charter) California 94-2424084 (State or other jurisdiction of (I.R.S. Employer incorporation or organization) Identification Number) 400 Kato Terrace Fremont, California 94539 (Address of principal executive offices) (Zip Code) 2006 Equity Incentive Plan 2006 Employee Stock Purchase Plan (Full title of the plan) Rhea J. Posedel Chief Executive Officer 400 Kato Terrace Fremont, California 94539 (510) 623-9400 (Name and address including zip code and telephone number, including area code, of agent for service) Copy to:

AEHR TEST SYSTEMS

Mark L. Reinstra, Esq. Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304 (650) 493-9300

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company x
(Do not check if a smaller reporting	company)

Title of Securities to be Registered		Aggregate Offering Price	Aggregate	-
2006 EQUITY INCENTIVE PLAN Common Stock available for issuance, par value \$0.01 per share	1,199,344(2)	\$0.89(4)	\$1,067,416	\$122.33
2006 EMPLOYEE STOCK PURCHASE PLAN Common Stock available for issuance, par value \$0.01 per share		\$0.76(5)	\$ 266,000	\$30.48
TOTAL	1,549,344		\$1,333,416	\$152.81

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the Registrant's Common Stock that become issuable under the plans by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of Registrant's Common Stock.
- (2) The 1,199,344 shares reflect an increase to the already existing 2006 Equity Incentive Plan of (i) 900,000 shares as a result of provisions in the 2006 Equity Incentive Plan that allow for increases of Common Stock available for issuance under such plan as approved by the Registrant's Board of Directors and shareholders and (ii) 299,344 shares returned to the 2006 Equity Incentive Plan due to cancellation of options under the 1996 Equity Incentive Plan as a result of provisions in the 2006 Equity Incentive Plan. Such additional 1,199,344 shares are covered by this Registration Statement.
- (3) The 350,000 shares reflect an increase to the already existing 2006 Employee Stock Purchase Plan as a result of provisions in the 2006 Employee Stock Purchase Plan that allow for increases of Common Stock available for issuance under such plan as approved by the Registrant's Board of Directors and shareholders. Such additional 350,000 shares are covered by this Registration Statement.
- (4) Estimated in accordance with Rule 457(c) under the Securities Act solely for the purpose of calculating the registration fee, based on the average of the high and low price per share of the Registrant's Common Stock as reported on the NASDAQ Capital Market on November 8, 2011.
- (5) Estimated in accordance with Rule 457(c) under the Securities Act solely for the purpose of calculating the registration fee, based on the average of the high and low price per share of the Registrant's Common Stock as reported on the NASDAQ Capital Market on November 8, 2011 multiplied by 85%, which is the percentage of trading purchase price applicable to purchases under such plan.

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The documents containing the information specified in Part I will be sent or given to employees as specified by Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act"). Such documents are not being filed with the Securities and Exchange Commission (the "SEC") either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. Such documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

Statement under General Instruction ${\mbox{E}}$ - Registration of Additional Securities:

Pursuant to General Instruction E of Form S-8, the contents of the Registration Statement on Form S-8 previously filed by the Registrant with the SEC (File No. 333-138249) in connection with the 2006 Equity Incentive Plan and the 2006 Employee Stock Purchase Plan are incorporated by reference into this Registration Statement. This Registration Statement registers additional shares of the Registrant's Common Stock to be issued pursuant to the 2006 Equity Incentive Plan and the 2006 Employee Stock Purchase Plan, and the following subsequent periodic reports and information contained therein are hereby incorporated by reference into this Registration Statement:

(a) The Registrant's Annual Report on Form 10-K for the fiscal year ended May 31, 2011, as filed pursuant to Section 13(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including portions of the Registrant's Proxy Statement for the 2011 Annual Meeting of Shareholders to the extent specifically incorporated by reference therein;

(b) The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended August 31, 2011; and

(c) The Registrant's Current Reports on Form 8-K filed on June 7, 2011, July 5, 2011, August 30, 2011, October 27, 2011 and November 7, 2011.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, on or after the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered herein have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interest of Named Experts and Counsel.

Members of Wilson Sonsini Goodrich & Rosati, Professional Corporation, may be deemed to beneficially own 239,633 shares of the

Registrant's Common Stock.

Item 6. Indemnification of Directors and Officers.

Section 317 of the California General Corporations Law (the "CGCL") authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers who are parties or are threatened to be made

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parties to any proceeding (with certain exceptions) by reason of the fact that the person is or was an agent of the corporation, against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with the proceeding if that person acted in good faith and in a manner the person reasonably believed to be in the best interests of the corporation, and in the case of a criminal proceeding, had no reasonable cause to believe the conduct of the person was unlawful.

Section 204 of the CGCL provides that a corporation's articles of incorporation may not limit the liability of directors (i) for acts or omissions that involve intentional misconduct or a knowing and culpable violation of law, (ii) for acts or omissions that a director believes to be contrary to the best interests of the corporation or its shareholders or that involve the absence of good faith on the part of the director, (iii) for any transaction from which a director derived an improper personal benefit, (iv) for acts or omissions that show a reckless disregard for the director's duty to the corporation or its shareholders in circumstances in which the director was aware, or should have been aware, in the ordinary course of performing a director's duties, of a risk of a serious injury to the corporation or its shareholders, (v) for acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director's duty to the corporation or its shareholders, (vi) under Section 310 of the CGCL (concerning transactions between corporations and directors or corporations having interrelated directors) or (vii) under Section 316 of the CGCL (concerning directors' liability for distributions, loans, and quarantees).

Section 204 further provides that a corporation's articles of incorporation may not limit the liability of directors for any act or omission occurring prior to the date when the provision became effective or any act or omission as an officer, notwithstanding that the officer is also a director or that his or her actions, if negligent or improper, have been ratified by the directors. Further, Section 317 has no effect on claims arising under federal or state securities laws and does not affect the availability of injunctions and other equitable remedies available to a corporation's shareholders for any violation of a director's fiduciary duty to the corporation or its shareholders.

In accordance with Section 317, the Restated Articles of Incorporation, as amended (the "Articles"), of the Registrant limit the liability of a director to the fullest extent permissible under California law. The Articles further authorize the Registrant to provide indemnification to its agents (including officers and directors), subject to the limitations set forth above. The Articles and the Registrant's By-Laws (the "By-Laws") further provide for indemnification of corporate agents to the maximum extent permitted by the CGCL.

Pursuant to the authority provided in the Articles and By-Laws, the Registrant has entered into indemnification agreements with its executive

officers and directors, indemnifying them against certain potential liabilities that may arise as a result of their service to the Registrant, and providing for certain other protection.

The foregoing summaries are necessarily subject to the complete text of the statute, the Articles, the By-Laws and the agreements referred to above and are qualified in their entirety by reference thereto.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Description Number _____ _____ 4.1* 2006 Equity Incentive Plan 4.2* 2006 Employee Stock Purchase Plan 5.1 Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation, as to the legality of the securities being registered 23.1 Consent of Burr Pilger Mayer, Inc., Independent Registered Public Accounting Firm 24.1 Power of Attorney (see page 7)

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* Incorporated by reference to the exhibits previously filed with the Registrant's Registration Statement on Form S-8 filed October 27, 2006 (File No. 333-138249).

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent

post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act, and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on November 14, 2011.

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POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Rhea J. Posedel and Gary L. Larson, and each of them, his attorneys-in-fact, each with the power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement, and to file the same, with all exhibits thereto in all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents or any of them, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date	
/s/ RHEA J. POSEDEL	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	November 14, 2011	
	Vice President of Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	,	
/s/ ROBERT R. ANDERSON Robert R. Anderson	Director	November 14, 2011	
/s/ WILLIAM W. R. ELDER 	Director	November 14, 2011	

/s/ MUKESH PATEL	Director		November 14, 2011
Mukesh Patel			
/s/ MARIO M. ROSATI	Director		November 14, 2011
Mario M. Rosati			
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		,	

/s/ HOWARD T. SLAYEN Director

November 14, 2011

Howard T. Slayen

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Index to Exhibits

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