FLUIDIGM CORP Form S-1MEF February 10, 2011

As filed with the Securities and Exchange Commission on February 10, 2011

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT

Under

The Securities Act of 1933

FLUIDIGM CORPORATION.

(Exact name of Registrant as specified in its charter)

Delaware (State or other jurisdiction of

3826 (Primary Standard Industrial 77-0513190 (I.R.S. Employer

incorporation or organization)

Classification Code Number)
7000 Shoreline Court, Suite 100

Identification Number)

South San Francisco, CA 94080

(650) 266-6000

(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

Gajus V. Worthington

President and Chief Executive Officer

7000 Shoreline Court, Suite 100

South San Francisco, CA 94080

(650) 266-6000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

David J. Segre	William M. Smith	Charles K. Ruck
Robert F. Kornegay	Vice President, Legal Affairs	B. Shayne Kennedy
Asaf H. Kharal	and General Counsel	Latham & Watkins LLP
Wilson Sonsini Goodrich & Rosati P.C.	7000 Shoreline Court, Suite 100	650 Town Center Drive, 20th Floor
650 Page Mill Road	South San Francisco, CA 94080	Costa Mesa, CA 92626
Palo Alto, CA 94304	Telephone: (650) 266-6000	Telephone: (714) 540-1235
Telephone: (650) 493-9300	Telecopy: (650) 871-7152	Telecopy: (714) 755-8290

Telecopy: (650) 493-6811

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the Securities Act), check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. x 333-170965

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, check the following box.

CALCULATION OF REGISTRATION FEE

Title of Each Class of		Proposed Maximum Aggregate	Amount of Registration
	Securities to be Registered	Offering Price (1)	Fee (2)
Common Stock \$0.001 par value		\$43,132.50	\$5.01

- (1) Fee calculated pursuant to Rule 457(o) and Section 6(b) of the Securities Act of 1933, as amended.
- (2) The Registrant previously registered an aggregate of \$86,250,000 of Common Stock on a Registration Statement on Form S-1 (File No. 333-170965), as amended, which was declared effective on February 9, 2011 and for which a filing fee of \$6,149.63 was previously paid.

This registration statement shall become effective upon filing with the Commission in accordance with Rule 462(b) of the Securities Act of 1933, as amended.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This Registration Statement is being filed with the Securities and Exchange Commission (the Commission) pursuant to Rule 462(b) under the Securities Act of 1933, as amended. This Registration Statement relates to the public offering of common stock of the Registrant contemplated by the Registration Statement on Form S-1, as amended (File No. 333-170965), originally filed by the Registrant on December 3, 2010, as amended (the Prior Registration Statement), and is being filed for the sole purpose of registering additional securities of the same class as were included in the Prior Registration Statement. The contents of the Prior Registration Statement and all exhibits thereto are hereby incorporated by reference.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of California, on the 10th day of February, 2011.

FLUIDIGM CORPORATION

By: /s/ Gajus V. Worthington Gajus V. Worthington

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on the 10^{th} day of February, 2011:

Signature	Title	Date
/s/ Gajus V. Worthington	President, Chief Executive Officer and Director	February 10, 2011
Gajus V. Worthington	(Principal Executive Officer)	
/s/ Vikram Jog	Chief Financial Officer	February 10, 2011
Vikram Jog	(Principal Accounting and Financial Officer)	
*	Director	February 10, 2011
Jeremy Loh		
*	Director	February 10, 2011
Samuel Colella		
*	Director	February 10, 2011
Kenneth Nussbacher		
*	Director	February 10, 2011
Raymond Whitaker		
*	Director	February 10, 2011
John A. Young		
By: /s/ Gajus V. Worthington Gajus V. Worthington		
Attorney-in-Fact		
By: /s/ Vikram Jog		

Vikram Jog

Attorney-in-Fact
The Power of Attorney granted by each director was filed as an exhibit to the Prior Registration Statement.

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EXHIBIT INDEX

Exhibit

Number	Description
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1)
24.1*	Power of Attorney

^{*} Incorporated by reference from the Prior Registration Statement.