

111<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 6003

To provide for the establishment of the National Fab Lab Network to build out a network of community based, networked Fabrication Laboratories across the United States to foster a new generation with scientific and engineering skills and to provide a workforce capable of producing world class individualized and traditional manufactured goods.

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## IN THE HOUSE OF REPRESENTATIVES

JULY 30, 2010

Mr. FOSTER introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Science and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To provide for the establishment of the National Fab Lab Network to build out a network of community based, networked Fabrication Laboratories across the United States to foster a new generation with scientific and engineering skills and to provide a workforce capable of producing world class individualized and traditional manufactured goods.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “National Fab Lab Net-  
3 work Act of 2010”.

4 **SEC. 2. FINDINGS.**

5 Congress finds the following:

6 (1) The United States is the world leader in sci-  
7 entific research, discovery, and innovation.

8 (2) There exists a strong social and economic  
9 incentive to create the fewest barriers to entry for  
10 those interested in furthering education, discovery,  
11 invention, and innovation in the scientific, techno-  
12 logical, engineering, and mathematical fields.

13 (3) The United States has a strong strategic in-  
14 terest in promoting a robust, well trained, highly ca-  
15 pable, and geographically diverse manufacturing  
16 base.

17 (4) MIT’s Center for Bits and Atoms has con-  
18 tributed significantly to the advancement of these  
19 goals through its work in creating and advancing  
20 Fabrication Laboratories (Fab Labs) in the United  
21 States and abroad.

22 (5) A new kind of national infrastructure will  
23 be required in order to adequately take advantage of  
24 leading edge digital fabrication technologies to se-  
25 cure the United States’ leading position in scientific  
26 fields and to promote a robust manufacturing base.

1           (6) A focused, dedicated national effort will be  
2           required in order to ensure the creation of such an  
3           infrastructure takes place as quickly and effectively  
4           as possible.

5 **SEC. 3. ESTABLISHMENT OF NATIONAL FAB LAB NETWORK.**

6           (a) ESTABLISHMENT.—The National Fab Lab Net-  
7           work incorporated by this Act (hereinafter in this section  
8           referred to as the “NFLN”) is hereby authorized and em-  
9           powered to receive either real or personal property and  
10          to hold the same absolutely or in trust, and to invest, rein-  
11          vest, and manage the same in accordance with the provi-  
12          sions of its constitution and to apply said property and  
13          the income arising therefrom to the objects of its creation  
14          and according to the instructions of its donors.

15          (b) IN GENERAL.—The National Fab Lab Network  
16          (NFLN) shall exist as a nonprofit entity whose purpose  
17          is to facilitate the piece by piece construction of an actual  
18          network of connected labs. The NFLN itself shall not rep-  
19          resent an overseeing, regulating, or coordinating body of  
20          this distributed network, but will merely exist to facilitate  
21          its construction.

22          (c) DEFINITIONS.—In this section, the term “Fab-  
23          rication Laboratory” also referred to as a “Fab Lab”  
24          means a facility containing a variety of manufacturing and  
25          other fabrication tools operable by means of digital input

1 as well as the software and computers required to design  
2 for and operate those tools. These labs serve a broad range  
3 of purposes, but each allow for clear guidelines for how  
4 members of the local community, local businesses, and  
5 academic or educational purposes can be pursued with the  
6 labs' resources consistent with a charter to be established  
7 by the NFLN.

8 (d) FUNCTIONS.—The functions of the NFLN shall  
9 be the following:

10 (1) To serve as the coordinating body for all ef-  
11 forts to create a coordinated, collaborative network  
12 of Fab Labs in the United States.

13 (2) To serve as the first point of contact for or-  
14 ganizations interested in constructing and operating  
15 a Fab Lab and to maintain a first-come first-serve  
16 wait list of those organizations.

17 (3) To work out to the satisfaction of NFLN  
18 staff and board members the ability of interested or-  
19 ganizations to successfully host a Fab Lab. In par-  
20 ticular, the staff and board members of the NFLN  
21 shall examine the ability of the organization to sup-  
22 ply a physical location for the lab, their financial  
23 ability to pay for sufficient staff to operate the lab  
24 and train its users, an ability to engage the local

1 community or other sufficient user base, and an  
2 awareness of those long term obligations.

3 (4) To match those organizations who meet  
4 with the NFLN's approval for those criteria speci-  
5 fied in paragraph (3) with available sources of fund-  
6 ing and individuals with personal experience in es-  
7 tablishing and operating Labs in other organizations  
8 so as to expedite the process of making new Labs  
9 operational. In general, the NFLN should not bring  
10 to this stage or continue to engage with those orga-  
11 nizations that do not meet the NFLN's approval on  
12 those criteria described in paragraph (3).

13 (5) To advertise or perform other outreach ac-  
14 tivities to those organizations that might have inter-  
15 est in or otherwise benefit from creating a Fab Lab,  
16 and to notify those organizations of the specific pur-  
17 poses the NFLN can perform.

18 (e) PURPOSES.—In carrying out its functions, the  
19 NFLN's purposes and goals shall be—

20 (1) to facilitate the construction of a new type  
21 of information and digital fabrication infrastructure;  
22 specifically, in all its actions to facilitate and encour-  
23 age the construction of a decentralized network of  
24 connected Fab Labs;

1           (2) to promote the goals of greater science,  
2           technology, engineering, and math education, work-  
3           force development in the areas of manufacturing and  
4           product design, increased innovation and invention  
5           in the private sector, as well as scientific and aca-  
6           demic discovery through the use of distributed dig-  
7           ital fabrication tools; and

8           (3) to seek to establish at least one Fab Lab  
9           per every 700,000 individuals in the United States  
10          in the first ten years of its operation.

11          (f) FUNDING.—The NFLN may accept donations  
12          from private individuals, corporations, government agen-  
13          cies, or other organizations.

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