

119TH CONGRESS
1ST SESSION

S. _____

To support the development of the robotics industry in the United States,
and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. ROUNDS (for himself and Mr. HICKENLOOPER) introduced the following
bill; which was read twice and referred to the Committee on

A BILL

To support the development of the robotics industry in the
United States, and for other purposes.

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Robotics Supply Chain
5 Improvement Act”.

6 **SEC. 2. DEFINITIONS OF ROBOTICS.**

7 (a) IN GENERAL.—Except as provided in subpara-
8 graph (B), in this Act the term “robotics” means any of
9 the following:

1 (1) Programmable, multi-functional mechanical
2 devices designed to move material, parts, tools, or
3 specialized devices through variable programmed mo-
4 tions to perform a variety of tasks.

5 (2) Programmed actuated mechanisms with a
6 degree of autonomy to perform locomotion, manipu-
7 lation, or positioning.

8 (3) Automatically controlled, reprogrammable,
9 multipurpose manipulators that are programmable
10 in not fewer than 3 axes, which can be either fixed
11 in place or fixed to a mobile platform for use in au-
12 tomation applications in an industrial environment.

13 (4) Machines that—

14 (A) can sense their environment;

15 (B) have the capacity to process the infor-
16 mation they sense; and

17 (C) are organized to act directly upon their
18 environment.

19 (5) Mechanical devices, which may also be re-
20 ferred to as unmanned ground vehicle systems,
21 that—

22 (A) are capable of locomotion, navigation,
23 or movement on the ground; and

24 (B) are operated at a distance by not fewer
25 than 1 operator or supervisor based on com-

1 mands or in response to sensor data or a com-
2 bination thereof.

3 (b) EXCEPTIONS.—In this Act, the term “robotics”
4 does not include—

5 (1) unmanned aircraft systems;

6 (2) passenger vehicles; or

7 (3) toys.

8 **SEC. 3. SUPPORT OF ROBOTIC DEVELOPMENT BY NA-**
9 **TIONAL INSTITUTE OF STANDARDS AND**
10 **TECHNOLOGY.**

11 Not later than 90 days after the date of the enact-
12 ment of this Act, the Director of the National Institute
13 of Standards and Technology shall—

14 (1) identify barriers and solutions to expanding
15 data collection and improving sharing to support—

16 (A) the development of artificial intel-
17 ligence models; and

18 (B) the development of robotics hardware;

19 (2) direct the Office of Advanced Manufac-
20 turing to promote the use, whenever possible, of ro-
21 botics by industry;

22 (3) coordinate with the robotics industry to
23 identify areas for the promulgation of useful stand-
24 ards, with particular attention given to—

1 (A) the area of emerging-robotics use
2 cases, such as humanoid robots and swarming
3 capabilities; and

4 (B) standards relating to the use of artificial
5 intelligence in robotics systems; and

6 (C) training and apprenticeship programs
7 to upskill United States workers;

8 (4) coordinate with the robotics industry to sup-
9 port the development of solutions for—

10 (A) the mining and critical mineral proc-
11 essing industry;

12 (B) food processing;

13 (C) the use of robotics in home and elder
14 care; and

15 (D) any other issue the Director considers
16 appropriate; and

17 (5) coordinate with the Secretary of Education
18 and the Secretary of Labor on the development of
19 curricula related to in-demand skills to enable the
20 robotics industry to support workforce development
21 and job creation.

22 **SEC. 4. REPORT ON ADOPTION OF ROBOTICS.**

23 (a) IN GENERAL.—Not later than 1 year after the
24 date of the enactment of this Act, and annually thereafter
25 for each of the subsequent 4 years, the Secretary of Com-

1 merce, acting through the Under Secretary for Economic
2 Affairs, shall submit to Congress a report that describes
3 the adoption of robotics and the rate of adoption within
4 firms across various industries in the United States.

5 (b) CONTENTS.—Each report submitted under sub-
6 section (a) shall include—

7 (1) an assessment of the adoption of robotics
8 based on geographic location;

9 (2) an assessment of industry-specific adoption;

10 (3) a description of the levels of investment in
11 robotics by industry;

12 (4) identification of any barrier to the adoption
13 of robotics by industry;

14 (5) a description of the impact of the adoption
15 of robotics on workforce and skill development
16 among workers by industry; and

17 (6) recommendations to Congress for legislation
18 action.

19 **SEC. 5. COMMERCIALIZATION OF NATIONAL AERONAUTICS**
20 **AND SPACE ADMINISTRATION INTELLECTUAL**
21 **PROPERTY RELATING TO ROBOTICS.**

22 (a) IN GENERAL.—The Administrator of the Na-
23 tional Aeronautics and Space Administration (referred to
24 in this section as the “Administrator”) shall prioritize the
25 licensing of National Aeronautics and Space Administra-

1 tion inventions, patents, and technologies to the private
2 sector, through new or existing mechanisms, for the com-
3 mercialization of innovations related to robotics developed
4 by National Aeronautics and Space Administration, in-
5 cluding by marketing such innovations to the private sec-
6 tor, for the purpose of supporting the domestic robotics
7 industrial base.

8 (b) REPORT.—Not later than 180 days after the date
9 of the enactment of this Act, the Administrator shall sub-
10 mit to the Committee on Commerce, Science, and Trans-
11 portation of the Senate and the Committee on Science,
12 Space, and Technology of the House of Representatives
13 a report on efforts made by the Administrator to prioritize
14 the commercialization of National Aeronautics and Space
15 Administration innovations related to robotics under sub-
16 section (a).