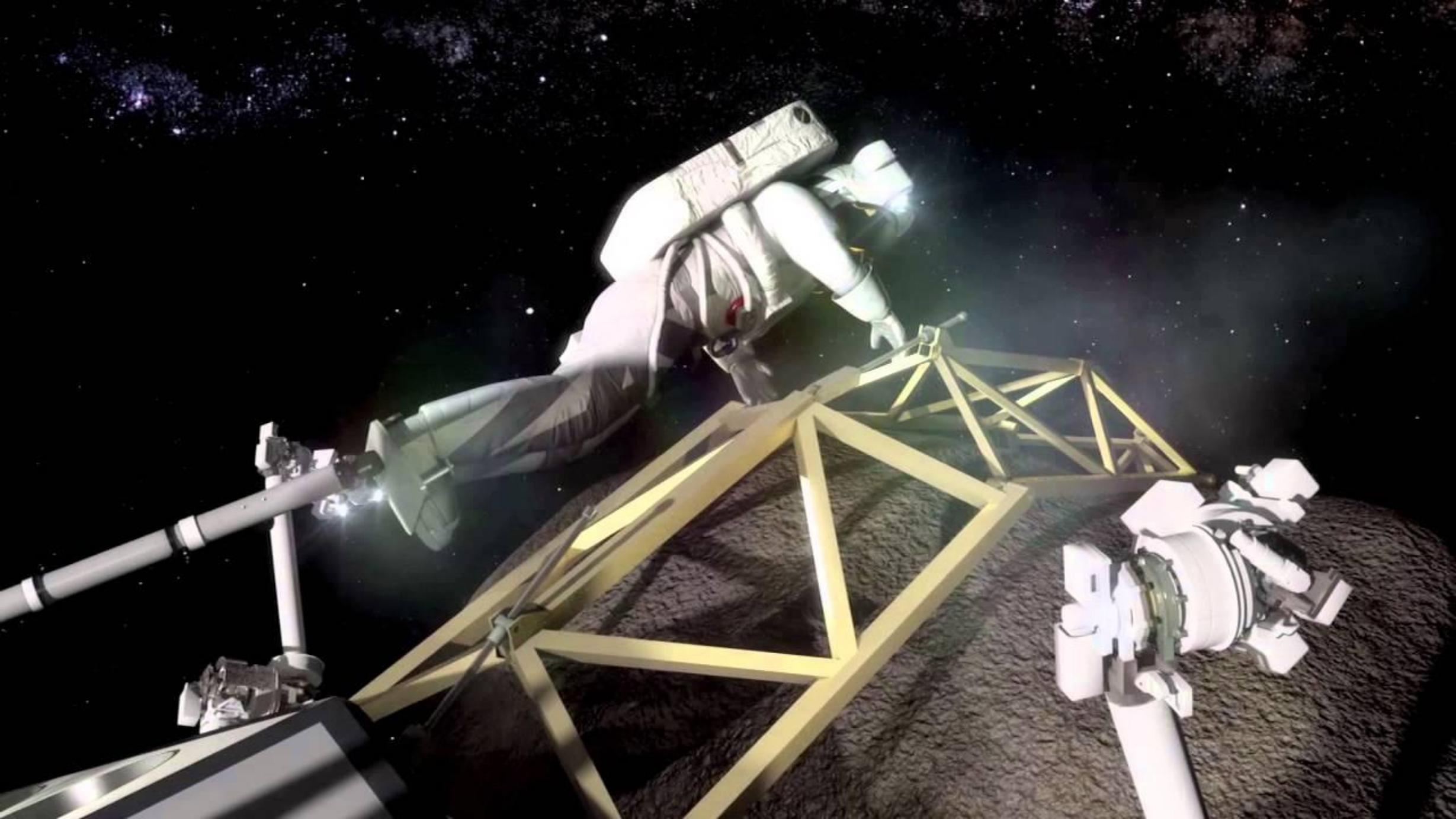

1
00:00:00,530 --> 00:00:01,760
My name is Tom Kerslake.

2
00:00:01,760 --> 00:00:06,319
And I'm glad to say I'm a solar array
Engineer at the NASA Glenn Research Center

3
00:00:06,319 --> 00:00:11,690
in Cleveland, Ohio.

4
00:00:11,690 --> 00:00:14,259
Music

5
00:00:14,259 --> 00:00:22,850
I'm very glad to say and very excited to
say I get to work on Solar Arrays for the

6
00:00:22,850 --> 00:00:28,300
Asteroid Redirect Mission and more specifically
the solar electric propulsion module that

7
00:00:28,300 --> 00:00:30,460
the solar array will power.

8
00:00:30,460 --> 00:00:35,579
And the reason that is exciting is we feel
that is a great stepping stone to get humans

9
00:00:35,579 --> 00:00:37,059
to Mars.

10
00:00:37,059 --> 00:00:41,629
Because we're going to be able to launch,
travel millions of miles in space.

11
00:00:41,629 --> 00:00:45,640
We're going to go out to an Asteroid or
perhaps even one of the moons or Mars and

12
00:00:45,640 --> 00:00:50,269
grab a very large boulder and re-direct it
all the way back into earth orbit.

13
00:00:50,269 --> 00:00:55,120
And that is a great precursor
demonstration of the engineering and technology,

14
00:00:55,120 --> 00:00:59,160
not only for the solar array, but the solar
electric propulsion system because in the

15
00:00:59,160 --> 00:01:04,000
future then we're going to be able move
even larger payloads that will be habitats

16
00:01:04,000 --> 00:01:08,729
and landers and all the equipment that humans
are going to need to eventually get to Mars

17
00:01:08,729 --> 00:01:11,340
orbit and eventually down to the surface of
Mars.

18
00:01:11,340 --> 00:01:16,479
NASA over the years with its contractor teams
have been developing very advanced, light

19
00:01:16,479 --> 00:01:22,140
weight flexible solar arrays and in fact one
of them was launched to Mars and it performed

20
00:01:22,140 --> 00:01:27,110
beautifully on the surface of Mars to provide
power to the Phoenix Lander.

21
00:01:27,110 --> 00:01:32,119
NASA and its partners have been developing
advanced Solar Array technology that can be

22
00:01:32,119 --> 00:01:37,729
used, not only on the solar electric propulsion
module to redirect an asteroid, but it can

23
00:01:37,729 --> 00:01:43,399
be grown in size and it can be used eventually
move around even larger objects than our asteroid