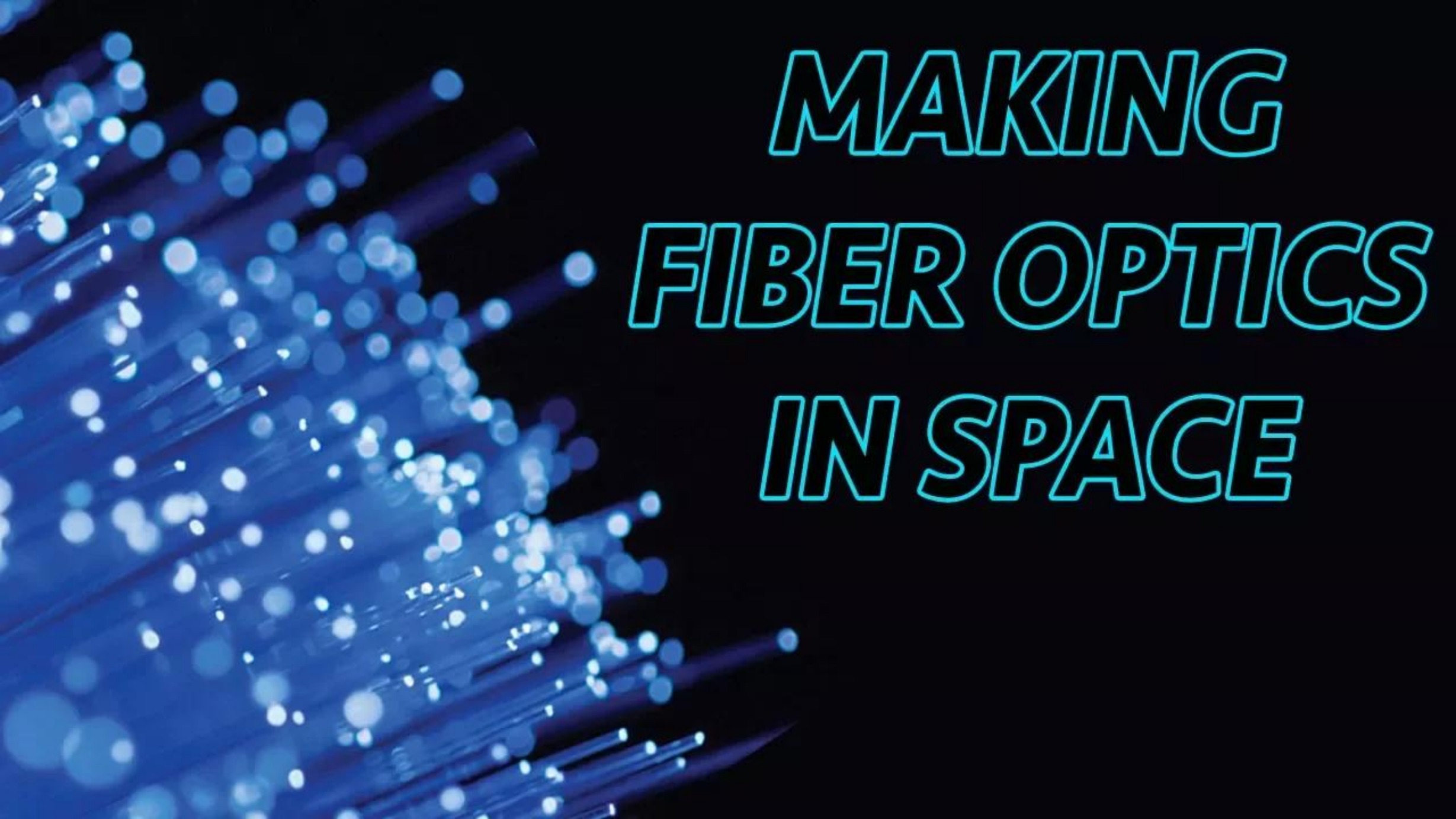
MAKING
FIBER OPTICS
IN SPACE

1
00:00:01,000 --> 00:00:08,375
[MUSIC]

2
00:00:08,375 --> 00:00:09,175
>> WE'RE EXCITED AT

3
00:00:09,175 --> 00:00:10,477
MADE IN SPACE TO WORK WITH

4
00:00:10,477 --> 00:00:12,078
NASA AND CASIS TO USE

5
00:00:12,078 --> 00:00:14,047
THE ISS NATIONAL LAB.

6
00:00:14,047 --> 00:00:15,382
MADE IN SPACE FIBER OPTICS

7
00:00:15,382 --> 00:00:18,218
IS A PAYLOAD TO MANUFACTURE

8
00:00:18,218 --> 00:00:19,419
ZBLAN GLASS FIBER

9
00:00:19,419 --> 00:00:20,820
IN MICROGRAVITY.

10
00:00:20,820 --> 00:00:22,155
IT WILL PRODUCE HUNDREDS

11
00:00:22,155 --> 00:00:23,990
OF METERS OF VERY,

12
00:00:23,990 --> 00:00:26,393
VERY HIGH END OPTICAL FIBER.

13
00:00:26,393 --> 00:00:27,660

MANUFACTURING FIBER

14
00:00:27,660 --> 00:00:29,896
IN MICROGRAVITY HAS BEEN

15
00:00:29,896 --> 00:00:32,432
THEORIZED TO INCREASE

16
00:00:32,432 --> 00:00:33,767
THE PERFORMANCE BY CREATING

17
00:00:33,767 --> 00:00:35,902
A BETTER PRODUCT-- A BETTER

18
00:00:35,902 --> 00:00:38,371
PRODUCT MEANING A CLEARER,

19
00:00:38,371 --> 00:00:40,373
MORE PURE GLASS.

20
00:00:40,373 --> 00:00:41,608
AND THAT IS DUE TO

21
00:00:41,608 --> 00:00:43,476
THE MICROCRYSTAL FORMATION.

22
00:00:43,476 --> 00:00:45,011
IT MAKES THE GLASS A LITTLE

23
00:00:45,011 --> 00:00:46,980
CLOUDIER WHEN THE CRYSTALS

24
00:00:46,980 --> 00:00:47,914
FORM HERE ON EARTH,

25
00:00:47,914 --> 00:00:48,648
AND IN SPACE IT'LL BE

26
00:00:48,648 --> 00:00:49,949
MORE PURE AND CLEAR.

27
00:00:49,949 --> 00:00:50,950
IN A MICROGRAVITY,

28
00:00:50,950 --> 00:00:52,485
THEY FORM IN A DIFFERENT WAY,

29
00:00:52,485 --> 00:00:53,653
IN A MORE PURE WAY

30
00:00:53,653 --> 00:00:55,789
WITH FEWER DEFECTS.

31
00:00:55,789 --> 00:00:57,223
WHAT COULD HAPPEN IS

32
00:00:57,223 --> 00:00:58,658
A 100 TIMES INCREASE

33
00:00:58,658 --> 00:01:00,193
IN PERFORMANCE.

34
00:01:00,193 --> 00:01:01,261
THIS IS A REALLY COOL PROJECT

35
00:01:01,261 --> 00:01:03,930
BECAUSE IT CAN BENEFIT

36
00:01:03,930 --> 00:01:05,265
EVERYONE HERE ON EARTH.

37
00:01:05,265 --> 00:01:07,033
FIBER OPTICS ARE USED FOR

38
00:01:07,033 --> 00:01:08,468

VARIOUS APPLICATIONS--

39
00:01:08,468 --> 00:01:09,969
MEDICAL DEVICES, LASERS,

40
00:01:09,969 --> 00:01:11,838
BUT ALSO INTERNET.

41
00:01:11,838 --> 00:01:13,306
AND THIS COULD REALLY

42
00:01:13,306 --> 00:01:14,607
HELP IMPROVE BANDWIDTH

43
00:01:14,607 --> 00:01:16,743
AND PERFORMANCE, AND LOWER

44
00:01:16,743 --> 00:01:17,944
THE COST OF INTERNET

45
00:01:17,944 --> 00:01:19,579
AND DATA CENTERS.