



1
00:00:03,669 --> 00:00:03,189
as we prepare to send humans back to the

2
00:00:06,710 --> 00:00:03,679
moon

3
00:00:07,110 --> 00:00:06,720
and onto mars the need for astronauts to

4
00:00:11,430 --> 00:00:07,120
grow

5
00:00:14,950 --> 00:00:11,440
fresh food in space is greater than ever

6
00:00:17,349 --> 00:00:14,960
plant habitat o2 or pho2

7
00:00:17,990 --> 00:00:17,359
is an experiment launching on northrop

8
00:00:20,150 --> 00:00:18,000
grumman's

9
00:00:23,830 --> 00:00:20,160
14th resupply mission to the

10
00:00:27,910 --> 00:00:26,150
lifting off from nasa's wallops flight

11
00:00:31,109 --> 00:00:27,920
facility in virginia

12
00:00:33,350 --> 00:00:31,119
ph02 will study the growth of radishes

13
00:00:34,630 --> 00:00:33,360

inside the space station's advanced

14

00:00:36,950 --> 00:00:34,640

plant habitat

15

00:00:39,750 --> 00:00:36,960

an enclosed growth chamber that lets us

16

00:00:43,030 --> 00:00:39,760

study how plants behave in microgravity

17

00:00:47,910 --> 00:00:45,350

the way the chamber works requires

18

00:00:50,869 --> 00:00:47,920

little maintenance from the crew

19

00:00:51,750 --> 00:00:50,879

it uses led lights a porous clay

20

00:00:54,790 --> 00:00:51,760

material

21

00:00:58,069 --> 00:00:54,800

and a fertilizer solution to deliver

22

00:00:59,990 --> 00:00:58,079

water nutrients and oxygen to the

23

00:01:02,470 --> 00:01:00,000

plant's roots

24

00:01:04,710 --> 00:01:02,480

inside the chamber are cameras and more

25

00:01:06,870 --> 00:01:04,720

than 180 sensors

26
00:01:08,070 --> 00:01:06,880
providing a constant stream of contact

27
00:01:10,149 --> 00:01:08,080
to researchers

28
00:01:11,350 --> 00:01:10,159
at the agency's kennedy space center in

29
00:01:13,590 --> 00:01:11,360
florida

30
00:01:15,030 --> 00:01:13,600
things like water distribution

31
00:01:17,590 --> 00:01:15,040
atmosphere content

32
00:01:18,630 --> 00:01:17,600
moisture levels and temperatures are all

33
00:01:20,950 --> 00:01:18,640
automated

34
00:01:22,630 --> 00:01:20,960
the successful growth of radishes will

35
00:01:24,710 --> 00:01:22,640
help us better understand

36
00:01:26,469 --> 00:01:24,720
what it takes to grow a variety of fresh

37
00:01:29,429 --> 00:01:26,479
fruits and vegetables

38
00:01:31,510 --> 00:01:29,439

in space something that astronauts need