



Spaceto**Ground**

1
00:00:00,490 --> 00:00:04,950

[Music]

2
00:00:09,270 --> 00:00:06,789

welcome to space to ground i'm sandra

3
00:00:11,110 --> 00:00:09,280

jones two dragons are now docked to the

4
00:00:13,110 --> 00:00:11,120

international space station and a

5
00:00:16,550 --> 00:00:13,120

spacewalking duo stepped outside the

6
00:00:19,990 --> 00:00:16,560

hatch this week for station upgrades

7
00:00:22,150 --> 00:00:20,000

on july 14th spacex's 25th commercial

8
00:00:23,189 --> 00:00:22,160

resupply services mission launched from

9
00:00:25,109 --> 00:00:23,199

florida

10
00:00:27,189 --> 00:00:25,119

following a two-day journey the cargo

11
00:00:29,189 --> 00:00:27,199

dragon arrived to the space station and

12
00:00:31,109 --> 00:00:29,199

docked to the forward port of harmony

13
00:00:32,229 --> 00:00:31,119

the resupply ship was filled with more

14

00:00:34,790 --> 00:00:32,239

than 5

15

00:00:37,190 --> 00:00:34,800

800 pounds of supplies hardware and

16

00:00:39,590 --> 00:00:37,200

science experiments also docked to the

17

00:00:41,430 --> 00:00:39,600

space station is the crew dragon freedom

18

00:00:43,430 --> 00:00:41,440

which arrived at the space station in

19

00:00:45,910 --> 00:00:43,440

april and docked to the zenith port of

20

00:00:48,310 --> 00:00:45,920

harmony with crew 4 on board that crew

21

00:00:50,869 --> 00:00:48,320

includes nasa astronauts chad lingard

22

00:00:53,189 --> 00:00:50,879

bob hines jessica watkins and issa

23

00:00:55,430 --> 00:00:53,199

astronaut samantha christopher reddy

24

00:00:57,590 --> 00:00:55,440

if you've heard the phrase today's urine

25

00:00:59,750 --> 00:00:57,600

is tomorrow's coffee you probably

26

00:01:02,150 --> 00:00:59,760

understand how important safe and

27

00:01:04,310 --> 00:01:02,160

efficient water recycling is for long

28

00:01:06,230 --> 00:01:04,320

duration space missions

29

00:01:08,789 --> 00:01:06,240

this week chell lingard worked on the

30

00:01:10,950 --> 00:01:08,799

forward osmosis membrane experiment

31

00:01:13,350 --> 00:01:10,960

which tests how reactive membranes for

32

00:01:15,190 --> 00:01:13,360

water treatment perform in microgravity

33

00:01:17,590 --> 00:01:15,200

as compared to their performance back on

34

00:01:19,910 --> 00:01:17,600

earth water filtration focused on

35

00:01:22,469 --> 00:01:19,920

reclaiming water often uses processes

36

00:01:24,710 --> 00:01:22,479

that require external energy to push

37

00:01:27,109 --> 00:01:24,720

water through filtering membranes with

38

00:01:29,429 --> 00:01:27,119

forward osmosis that movement happens

39

00:01:32,469 --> 00:01:29,439

when a solution pulls the water across

40

00:01:34,550 --> 00:01:32,479

the membrane requiring far less power

41

00:01:36,789 --> 00:01:34,560

researchers hope to identify any

42

00:01:39,109 --> 00:01:36,799

unexpected challenges to using this form

43

00:01:40,950 --> 00:01:39,119

of water treatment in microgravity what

44

00:01:43,270 --> 00:01:40,960

they learn could impact water

45

00:01:45,350 --> 00:01:43,280

reclamation efforts for future space

46

00:01:47,830 --> 00:01:45,360

missions and could lead to more cost

47

00:01:49,109 --> 00:01:47,840

effective water purification systems on

48

00:01:51,910 --> 00:01:49,119

earth

49

00:01:54,630 --> 00:01:51,920

on thursday two spacewalkers suited up

50

00:01:57,830 --> 00:01:54,640

for a workday with a view

51
00:02:00,310 --> 00:01:57,840
expedition 67 commander oleg artemyev of

52
00:02:02,310 --> 00:02:00,320
rose cosmos and flight engineer samantha

53
00:02:04,550 --> 00:02:02,320
christopher reddy of issa clad in

54
00:02:06,709 --> 00:02:04,560
russian orleans space suits performed a

55
00:02:08,790 --> 00:02:06,719
spacewalk to install platforms and

56
00:02:11,510 --> 00:02:08,800
workstation adapter hardware near the

57
00:02:13,350 --> 00:02:11,520
37-foot long manipulator system mounted

58
00:02:15,270 --> 00:02:13,360
to nayuka

59
00:02:16,790 --> 00:02:15,280
and that's space to ground for this week

60
00:02:23,230 --> 00:02:16,800
thanks so much for watching we'll see