SPACE TO GROUND

1
00:00:06,230 --> 00:00:04,230
houston station on space to ground

2
00:00:07,749 --> 00:00:06,240
suit up

3
00:00:09,750 --> 00:00:07,759
welcome to space to ground i'm gary

4
00:00:11,430 --> 00:00:09,760
jordan two astronauts wrapped up a

5
00:00:13,350 --> 00:00:11,440
spacewalk this week to install a new

6
00:00:14,870 --> 00:00:13,360
adapter for future space vehicles to

7
00:00:16,950 --> 00:00:14,880
dock to on the outside of the

8
00:00:18,630 --> 00:00:16,960
international space station

9
00:00:20,230 --> 00:00:18,640
jeff williams and kate rubins got in

10
00:00:22,150 --> 00:00:20,240
their spacesuits to go out and install

11
00:00:23,509 --> 00:00:22,160
the first international docking adapter

12
00:00:24,950 --> 00:00:23,519
to the iss

13
00:00:26,710 --> 00:00:24,960

this is a new piece of hardware that

14
00:00:29,109 --> 00:00:26,720
will be used for future commercial space

15
00:00:31,269 --> 00:00:29,119
vehicles like the spacex crew dragon and

16
00:00:33,270 --> 00:00:31,279
boeing starliner to attach to the space

17
00:00:35,590 --> 00:00:33,280
station they successfully attached the

18
00:00:37,830 --> 00:00:35,600
ida connected all of the cables and

19
00:00:39,830 --> 00:00:37,840
wrapped up the spacewalk as planned the

20
00:00:42,150 --> 00:00:39,840
next ida is currently slated for launch

21
00:00:43,510 --> 00:00:42,160
in early 2018.

22
00:00:45,510 --> 00:00:43,520
researchers are looking into the

23
00:00:47,270 --> 00:00:45,520
neurocognitive performance of astronauts

24
00:00:49,270 --> 00:00:47,280
and how that may change over time during

25
00:00:51,750 --> 00:00:49,280
long-duration spaceflights by having

26
00:00:53,510 --> 00:00:51,760
them play a game for the brain

27
00:00:55,430 --> 00:00:53,520
the neuromapping experiment looks at

28
00:00:57,910 --> 00:00:55,440
astronauts brain structure and function

29
00:00:59,349 --> 00:00:57,920
motor control and multitasking previous

30
00:01:00,869 --> 00:00:59,359
research and stories from astronauts

31
00:01:02,310 --> 00:01:00,879
suggest that movement control and

32
00:01:04,630 --> 00:01:02,320
cognition can be affected in

33
00:01:06,950 --> 00:01:04,640
microgravity jeff williams performed

34
00:01:08,390 --> 00:01:06,960
what's called a mental rotation task

35
00:01:10,149 --> 00:01:08,400
it's a computerized test where

36
00:01:12,230 --> 00:01:10,159
astronauts use a controller to memorize

37
00:01:14,710 --> 00:01:12,240
the orientation of a 3d cube and

38
00:01:17,270 --> 00:01:14,720

identify matches they perform this both

39
00:01:19,030 --> 00:01:17,280
stationary and free-floating astronauts

40
00:01:21,270 --> 00:01:19,040
take other assessments for neuro mapping

41
00:01:22,550 --> 00:01:21,280
too all to help the long-term health of

42
00:01:25,749 --> 00:01:22,560
astronauts

43
00:01:27,749 --> 00:01:25,759
shared an image of them all having a

44
00:01:29,190 --> 00:01:27,759
meal in orbit but how do the astronauts

45
00:01:31,030 --> 00:01:29,200
keep food from flying away from the

46
00:01:32,469 --> 00:01:31,040
dinner table well it does take some

47
00:01:34,149 --> 00:01:32,479
getting used to but there are a few

48
00:01:35,670 --> 00:01:34,159
tactics that the astronauts have adopted

49
00:01:37,350 --> 00:01:35,680
for eating in space

50
00:01:39,429 --> 00:01:37,360
astronauts use velcro for a lot of

51
00:01:40,950 --> 00:01:39,439
things in space including food all

52
00:01:43,270 --> 00:01:40,960
packaged food from the united states

53
00:01:45,590 --> 00:01:43,280
have velcro on it they also use tape and

54
00:01:47,350 --> 00:01:45,600
bungee cords to keep food on the table

55
00:01:48,870 --> 00:01:47,360
once they open the food surface tension

56
00:01:50,950 --> 00:01:48,880
does a pretty good job of keeping the

57
00:01:53,030 --> 00:01:50,960
food and drink inside the packaging in

58
00:01:55,270 --> 00:01:53,040
fact for many meals astronauts even use

59
00:01:57,429 --> 00:01:55,280
a spoon and the food doesn't fly off the

60
00:01:59,030 --> 00:01:57,439
utensil because of surface tension they

61
00:02:00,630 --> 00:01:59,040
also use certain sticky foods like

62
00:02:02,550 --> 00:02:00,640
peanut butter or honey as a sort of

63
00:02:04,870 --> 00:02:02,560

adhesive for other food to stick better

64
00:02:06,469 --> 00:02:04,880
to a tortilla for sandwiches

65
00:02:08,869 --> 00:02:06,479
keep sending us your questions using the