SPACE TO GROUND

1
00:00:04,870 --> 00:00:03,110
houston station on space to ground

2
00:00:06,470 --> 00:00:04,880
welcome to space to ground your weekly

3
00:00:08,150 --> 00:00:06,480
look at what's happening on board the

4
00:00:10,390 --> 00:00:08,160
international space station i'm dan

5
00:00:12,709 --> 00:00:10,400
hewitt the station got a makeover this

6
00:00:14,950 --> 00:00:12,719
week with some robotic rearranging

7
00:00:16,870 --> 00:00:14,960
flight controllers in canada and in

8
00:00:19,269 --> 00:00:16,880
mission control houston relocated the

9
00:00:22,150 --> 00:00:19,279
permanent multi-purpose module which is

10
00:00:24,390 --> 00:00:22,160
used to store extra cargo on the station

11
00:00:26,710 --> 00:00:24,400
it was moved from the unity node to the

12
00:00:29,509 --> 00:00:26,720
tranquility node to free up a docking

13
00:00:31,589 --> 00:00:29,519

port on unity this activity was the

14
00:00:33,350 --> 00:00:31,599
latest step in preparing the station for

15
00:00:35,670 --> 00:00:33,360
the installation of two new docking

16
00:00:37,750 --> 00:00:35,680
adapters for use by future u.s

17
00:00:39,590 --> 00:00:37,760
commercial crew vehicles

18
00:00:42,069 --> 00:00:39,600
astronauts are called on to perform a

19
00:00:44,229 --> 00:00:42,079
lot of precise tasks and one study is

20
00:00:45,190 --> 00:00:44,239
making sure microgravity doesn't get in

21
00:00:47,190 --> 00:00:45,200
the way

22
00:00:49,350 --> 00:00:47,200
the fine motor skills study is looking

23
00:00:51,350 --> 00:00:49,360
at how spending a long time in space

24
00:00:53,910 --> 00:00:51,360
affects an astronaut's ability to

25
00:00:56,630 --> 00:00:53,920
interact with experiments computers and

26
00:00:58,229 --> 00:00:56,640
robotics controls all tasks that require

27
00:01:00,470 --> 00:00:58,239
a crew member to be good with their

28
00:01:02,229 --> 00:01:00,480
hands the tests developed for this study

29
00:01:04,310 --> 00:01:02,239
use a tablet computer and knowing

30
00:01:06,310 --> 00:01:04,320
microgravity's impacts will help us

31
00:01:08,630 --> 00:01:06,320
develop necessary countermeasures for

32
00:01:10,230 --> 00:01:08,640
space travelers these tests could also

33
00:01:13,109 --> 00:01:10,240
be used by patients undergoing

34
00:01:15,429 --> 00:01:13,119
rehabilitation down here on earth

35
00:01:18,310 --> 00:01:15,439
this week edie asked where the center of

36
00:01:20,070 --> 00:01:18,320
mass is on the iss seems simple but our

37
00:01:22,630 --> 00:01:20,080
flight controllers will tell you that's

38
00:01:24,550 --> 00:01:22,640

actually a really important question

39
00:01:26,630 --> 00:01:24,560
the space station's center of mass is

40
00:01:29,429 --> 00:01:26,640
located right around an area known as

41
00:01:31,350 --> 00:01:29,439
the s-zero truss which is a section of

42
00:01:34,069 --> 00:01:31,360
the large backbone structure of the

43
00:01:36,550 --> 00:01:34,079
complex the location does move around

44
00:01:38,390 --> 00:01:36,560
slightly as vehicles come and go or with

45
00:01:41,109 --> 00:01:38,400
activities like this week's pmm

46
00:01:43,830 --> 00:01:41,119
relocation tracking the center of mass

47
00:01:46,149 --> 00:01:43,840
is absolutely essential for planning and

48
00:01:49,030 --> 00:01:46,159
executing activities like attitude

49
00:01:50,550 --> 00:01:49,040
control robotic operations even

50
00:01:52,389 --> 00:01:50,560
spacewalks

51
00:01:53,990 --> 00:01:52,399
make sure to keep sending your questions