



HD

1
00:00:08,870 --> 00:00:06,950
all right it's like a bowling ball

2
00:00:10,950 --> 00:00:08,880
but we're not going bowling actually

3
00:00:12,390 --> 00:00:10,960
well let's play air hockey right tell us

4
00:00:14,390 --> 00:00:12,400
about where we're at

5
00:00:16,790 --> 00:00:14,400
so we've got some air carriages here

6
00:00:19,269 --> 00:00:16,800
that help us simulate microgravity it's

7
00:00:20,710 --> 00:00:19,279
about the best we can do here in the lab

8
00:00:23,590 --> 00:00:20,720
uh and

9
00:00:25,509 --> 00:00:23,600
before going to the lab in space right

10
00:00:28,230 --> 00:00:25,519
now on the iss

11
00:00:30,470 --> 00:00:28,240
and we have these air carriages that

12
00:00:32,069 --> 00:00:30,480
have their own co2 tanks they create a

13
00:00:33,510 --> 00:00:32,079

cushion of air at the bottom and like

14

00:00:35,270 --> 00:00:33,520

you said it's like a reverse air hockey

15

00:00:37,030 --> 00:00:35,280

table where we have a cushion of air

16

00:00:39,750 --> 00:00:37,040

that keeps these things floating and

17

00:00:41,990 --> 00:00:39,760

they move in a near friction free way so

18

00:00:44,069 --> 00:00:42,000

that things that get set going keep

19

00:00:45,990 --> 00:00:44,079

going just like in microgravity if you

20

00:00:47,510 --> 00:00:46,000

set something going it's not going to

21

00:00:49,510 --> 00:00:47,520

stop until there's a force in the

22

00:00:51,910 --> 00:00:49,520

opposite direction you know newton's law

23

00:00:54,310 --> 00:00:51,920

right it keeps going until there's a

24

00:00:55,750 --> 00:00:54,320

equal and opposite force to keep stop it

25

00:00:57,430 --> 00:00:55,760

from going i'm not going to lie this has

26

00:00:59,349 --> 00:00:57,440

got to be one of the coolest places to

27

00:01:01,430 --> 00:00:59,359

work every little boy's dream right you

28

00:01:03,029 --> 00:01:01,440

guys come in here and yeah you play but

29

00:01:04,869 --> 00:01:03,039

it's all in the name of science right i

30

00:01:06,630 --> 00:01:04,879

mean just look at these toys right yeah

31

00:01:09,750 --> 00:01:06,640

we have a great time uh working with

32

00:01:11,190 --> 00:01:09,760

these investigations and uh we program

33

00:01:13,109 --> 00:01:11,200

them here in the lab we test them out

34

00:01:15,190 --> 00:01:13,119

make sure they work great and yeah

35

00:01:17,350 --> 00:01:15,200

wherever we can we do our own research

36

00:01:19,270 --> 00:01:17,360

our own investigations to look at what

37

00:01:21,030 --> 00:01:19,280

we can do in space and that's a lot of

38

00:01:22,710 --> 00:01:21,040

fun and and there have been multiple

39

00:01:24,870 --> 00:01:22,720

uses of this on the space station right

40

00:01:27,590 --> 00:01:24,880

it's been there for years oh yeah it's

41

00:01:30,230 --> 00:01:27,600

been up there for uh six eight years now

42

00:01:31,749 --> 00:01:30,240

and uh it's one of the most popular uh

43

00:01:33,670 --> 00:01:31,759

payloads on the space station it's

44

00:01:35,270 --> 00:01:33,680

educational and you're learning

45

00:01:37,190 --> 00:01:35,280

autonomously we've got zero robotics

46

00:01:39,190 --> 00:01:37,200

where even uh middle school students are

47

00:01:41,429 --> 00:01:39,200

programming these things uh using that

48

00:01:42,789 --> 00:01:41,439

makes me feel bad

49

00:01:43,670 --> 00:01:42,799

they have a great time they they learn

50

00:01:44,789 --> 00:01:43,680

how to program these things they're

51
00:01:46,710 --> 00:01:44,799
learning how to program for the first

52
00:01:48,710 --> 00:01:46,720
time and then they get to uh see these

53
00:01:51,910 --> 00:01:48,720
things operate their code from space in

54
00:01:53,270 --> 00:01:51,920
real time uh on on live tv so

55
00:01:54,550 --> 00:01:53,280
they have a good time with that and as

56
00:01:55,990 --> 00:01:54,560
well as the researchers from all around

57
00:01:58,469 --> 00:01:56,000
the country looking at different things

58
00:02:00,870 --> 00:01:58,479
that they could do in microgravity and

59
00:02:02,230 --> 00:02:00,880
on in space all kinds of unique things

60
00:02:04,550 --> 00:02:02,240
that they can study and investigate

61
00:02:06,069 --> 00:02:04,560
using this platform and and this granite

62
00:02:08,469 --> 00:02:06,079
floor i have to mention

63
00:02:10,309 --> 00:02:08,479

a little splash of color i like it

64

00:02:12,470 --> 00:02:10,319

absolutely in fact it was a female

65

00:02:14,229 --> 00:02:12,480

member of our team that chose that color

66

00:02:16,070 --> 00:02:14,239

for these uh next generation of co2

67

00:02:17,190 --> 00:02:16,080

tanks we're sending up to space station

68

00:02:18,470 --> 00:02:17,200

uh to

69

00:02:20,309 --> 00:02:18,480

differentiate them from the original

70

00:02:22,229 --> 00:02:20,319

ones which are actually gray grayish

71

00:02:23,670 --> 00:02:22,239

boring looking now you'll see you say

72

00:02:25,510 --> 00:02:23,680

though when they get to orbit you won't

73

00:02:27,030 --> 00:02:25,520

really see the pink but right you can't

74

00:02:28,790 --> 00:02:27,040

distract the astronauts too much well

75

00:02:30,630 --> 00:02:28,800

once screwed into the spheres you're

76

00:02:32,470 --> 00:02:30,640

you're not going to see the pink but uh

77

00:02:34,309 --> 00:02:32,480

when they exchange the tanks uh they can

78

00:02:36,390 --> 00:02:34,319

tell they're very pink and and it also

79

00:02:39,589 --> 00:02:36,400

helps us from the ground uh i locate

80

00:02:41,270 --> 00:02:39,599

them on the video uh the the pink tanks

81

00:02:42,869 --> 00:02:41,280

well i can't wait can we race these

82

00:02:44,550 --> 00:02:42,879

right now i mean i just can't wait