
@Astro_Alneyadi
Space to Ground

1
00:00:06,670 --> 00:00:02,790
foreign

2
00:00:09,230 --> 00:00:06,680
[Music]

3
00:00:10,310 --> 00:00:09,240
it's been another busy week in orbit as

4
00:00:12,350 --> 00:00:10,320
astronauts aboard the International

5
00:00:14,270 --> 00:00:12,360
Space Station welcomed another cargo

6
00:00:16,090 --> 00:00:14,280
Dragon loaded with some exciting new

7
00:00:17,810 --> 00:00:16,100
science and a power upgrade

8
00:00:20,870 --> 00:00:17,820
[Music]

9
00:00:22,609 --> 00:00:20,880
Park and lyft's office crs-28 go falcon

10
00:00:25,250 --> 00:00:22,619
go dragon

11
00:00:27,230 --> 00:00:25,260
on Monday June 5th an uncrewed SpaceX

12
00:00:29,929 --> 00:00:27,240
Dragon launched on the company's Falcon

13
00:00:31,669 --> 00:00:29,939

9 rocket from launch complex 39a at

14
00:00:33,830 --> 00:00:31,679
NASA's Kennedy Space Center in Florida

15
00:00:36,229 --> 00:00:33,840
carrying more than seven thousand pounds

16
00:00:38,510 --> 00:00:36,239
of research hardware and supplies to the

17
00:00:40,010 --> 00:00:38,520
International Space Station also among

18
00:00:41,450 --> 00:00:40,020
the science hardware and fresh food

19
00:00:45,170 --> 00:00:41,460
brought up to the space station on

20
00:00:47,510 --> 00:00:45,180
Dragon were a pair of new solar arrays

21
00:00:49,670 --> 00:00:47,520
on Friday June 9th NASA astronaut

22
00:00:51,410 --> 00:00:49,680
Stephen Bowen and Woody hoberg exited

23
00:00:53,690 --> 00:00:51,420
the station's Quest airlock to install

24
00:00:55,549 --> 00:00:53,700
an upgraded irosa on the 1A power

25
00:00:58,369 --> 00:00:55,559
channel on the starboard Trust of the

26
00:01:00,110 --> 00:00:58,379
station on Thursday June 15th the same

27
00:01:02,689 --> 00:01:00,120
pair of astronauts will install another

28
00:01:04,910 --> 00:01:02,699
irosa on the 1B power channel on the

29
00:01:07,190 --> 00:01:04,920
starboard truss the spacewalks will see

30
00:01:09,530 --> 00:01:07,200
the 5th and sixth irosis mounted to the

31
00:01:11,870 --> 00:01:09,540
existing solar arrays and will augment

32
00:01:13,609 --> 00:01:11,880
the power capability on the station to

33
00:01:16,130 --> 00:01:13,619
accommodate increased commercial and

34
00:01:18,109 --> 00:01:16,140
scientific research on the complex

35
00:01:19,609 --> 00:01:18,119
back inside the station we look to

36
00:01:22,010 --> 00:01:19,619
answer the question do you age

37
00:01:23,990 --> 00:01:22,020
differently in space we'll go back to

38
00:01:25,969 --> 00:01:24,000

high school for the answer

39
00:01:28,429 --> 00:01:25,979
an experiment designed by high school

40
00:01:30,890 --> 00:01:28,439
student pristine onwaha the winner of

41
00:01:33,050 --> 00:01:30,900
the 2022 genes in space student research

42
00:01:34,969 --> 00:01:33,060
competition is now aboard the orbiton

43
00:01:37,370 --> 00:01:34,979
laboratory this investigation was

44
00:01:40,010 --> 00:01:37,380
inspired by NASA's twin study of sibling

45
00:01:41,510 --> 00:01:40,020
astronaut Scott and Mark Kelly Winston

46
00:01:42,890 --> 00:01:41,520
went to space while the other stayed on

47
00:01:44,390 --> 00:01:42,900
the earth and so that study documented

48
00:01:46,310 --> 00:01:44,400
the changes between them and one really

49
00:01:48,410 --> 00:01:46,320
grabbed my eye and so that one dealt

50
00:01:50,450 --> 00:01:48,420
with the genetics of the twin in space

51
00:01:52,490 --> 00:01:50,460
specifically his tongue ears which are

52
00:01:54,710 --> 00:01:52,500
the genetic sequences that have the ends

53
00:01:57,289 --> 00:01:54,720
of our chromosomes on Earth telomere

54
00:01:58,789 --> 00:01:57,299
shortened as we age but for that twin in

55
00:02:01,130 --> 00:01:58,799
space they appear to lengthen that's

56
00:02:02,870 --> 00:02:01,140
something that's broader for astronauts

57
00:02:04,670 --> 00:02:02,880
as a whole and so that kind of raised

58
00:02:06,889 --> 00:02:04,680
the question of whether astronauts aged

59
00:02:08,870 --> 00:02:06,899
differently in space But even more

60
00:02:10,910 --> 00:02:08,880
interesting was that we didn't know the

61
00:02:12,949 --> 00:02:10,920
cause of that process and so with this

62
00:02:14,449 --> 00:02:12,959
Gap in knowledge presented I was Keen to

63
00:02:16,790 --> 00:02:14,459

develop an experiment that might help us

64
00:02:18,710 --> 00:02:16,800
get closer to answering that question

65
00:02:20,869 --> 00:02:18,720
this investigation and several others

66
00:02:22,970 --> 00:02:20,879
are now on the space station so head on

67
00:02:25,010 --> 00:02:22,980
over to ISS underscore Research on

68
00:02:26,869 --> 00:02:25,020
Twitter to learn more that's space

69
00:02:29,030 --> 00:02:26,879
around for now thanks for watching we'll