1
00:00:04,550 --> 00:00:02,310
the james webb space telescope will be a

2
00:00:06,550 --> 00:00:04,560
million miles from earth right now there

3
00:00:08,710 --> 00:00:06,560
are no plans for astronauts to actually

4
00:00:10,549 --> 00:00:08,720
go and fix it so what happens if

5
00:00:12,470 --> 00:00:10,559
something goes wrong

6
00:00:14,549 --> 00:00:12,480
so what exactly are you folks doing

7
00:00:16,870 --> 00:00:14,559
right now to make sure that the james

8
00:00:18,150 --> 00:00:16,880
webb does work properly okay the

9
00:00:19,510 --> 00:00:18,160
electronics that we built are an

10
00:00:20,870 --> 00:00:19,520
advanced version of the actual

11
00:00:23,509 --> 00:00:20,880
electronics that will be on the

12
00:00:26,070 --> 00:00:23,519
spacecraft so we actually test them on

13
00:00:28,230 --> 00:00:26,080

the ground before they launch so that

14
00:00:29,990 --> 00:00:28,240
once we launch we can actually simulate

15
00:00:33,110 --> 00:00:30,000
any problem that might happen once the

16
00:00:34,870 --> 00:00:33,120
spacecraft is actually deployed in space

17
00:00:36,950 --> 00:00:34,880
so a simulator like

18
00:00:39,350 --> 00:00:36,960
a game simulator yeah it's actually a

19
00:00:41,750 --> 00:00:39,360
lot like a game simulator maybe with not

20
00:00:43,190 --> 00:00:41,760
as much visuals as you're used to but we

21
00:00:45,750 --> 00:00:43,200
actually have a lot of data that will be

22
00:00:47,029 --> 00:00:45,760
floating by on the screen that indicates

23
00:00:49,670 --> 00:00:47,039
things like the temperature of the

24
00:00:52,069 --> 00:00:49,680
spacecraft what direction it's pointing

25
00:00:54,229 --> 00:00:52,079
whether antennas are communicating back

26
00:00:55,910 --> 00:00:54,239
and forth to earth things like that

27
00:00:57,670 --> 00:00:55,920
electronics that we will be testing

28
00:01:00,950 --> 00:00:57,680
actually is located underneath in the

29
00:01:02,950 --> 00:01:00,960
spacecraft compartment there and that is

30
00:01:05,830 --> 00:01:02,960
responsible for sending all the data

31
00:01:09,510 --> 00:01:05,840
down to earth and back up to earth

32
00:01:11,030 --> 00:01:09,520
controlling the satellite hi alicia

33
00:01:14,710 --> 00:01:11,040
so what are you doing here

34
00:01:17,109 --> 00:01:14,720
i am looking at uh data from

35
00:01:19,749 --> 00:01:17,119
a simulated spacecraft

36
00:01:22,230 --> 00:01:19,759
of the observatory so this is our system

37
00:01:24,550 --> 00:01:22,240
our ground system that we use to

38
00:01:26,469 --> 00:01:24,560

look at telemetry send commands to the

39
00:01:27,510 --> 00:01:26,479
actual vehicle

40
00:01:30,230 --> 00:01:27,520
and

41
00:01:32,230 --> 00:01:30,240
do our real-time assessment of of its

42
00:01:33,990 --> 00:01:32,240
health and safety so basically in a

43
00:01:35,429 --> 00:01:34,000
nutshell it's like you're getting the

44
00:01:37,590 --> 00:01:35,439
pulse or the vital signs for the

45
00:01:39,190 --> 00:01:37,600
instrument absolutely absolutely this

46
00:01:41,590 --> 00:01:39,200
pretty much is our eyes into what's

47
00:01:43,109 --> 00:01:41,600
going on on the satellite and we

48
00:01:44,630 --> 00:01:43,119
determine by looking at all of this

49
00:01:46,630 --> 00:01:44,640
information

50
00:01:47,830 --> 00:01:46,640
are we safe and what do we need to do to

51
00:01:49,910 --> 00:01:47,840
get it safe

52
00:01:52,310 --> 00:01:49,920
so as you can see a lot of work is being

53
00:01:54,310 --> 00:01:52,320
done right now to make sure engineers on

54
00:01:56,630 --> 00:01:54,320
the ground keep the james webb space

55
00:01:58,630 --> 00:01:56,640
telescope up and running throughout its