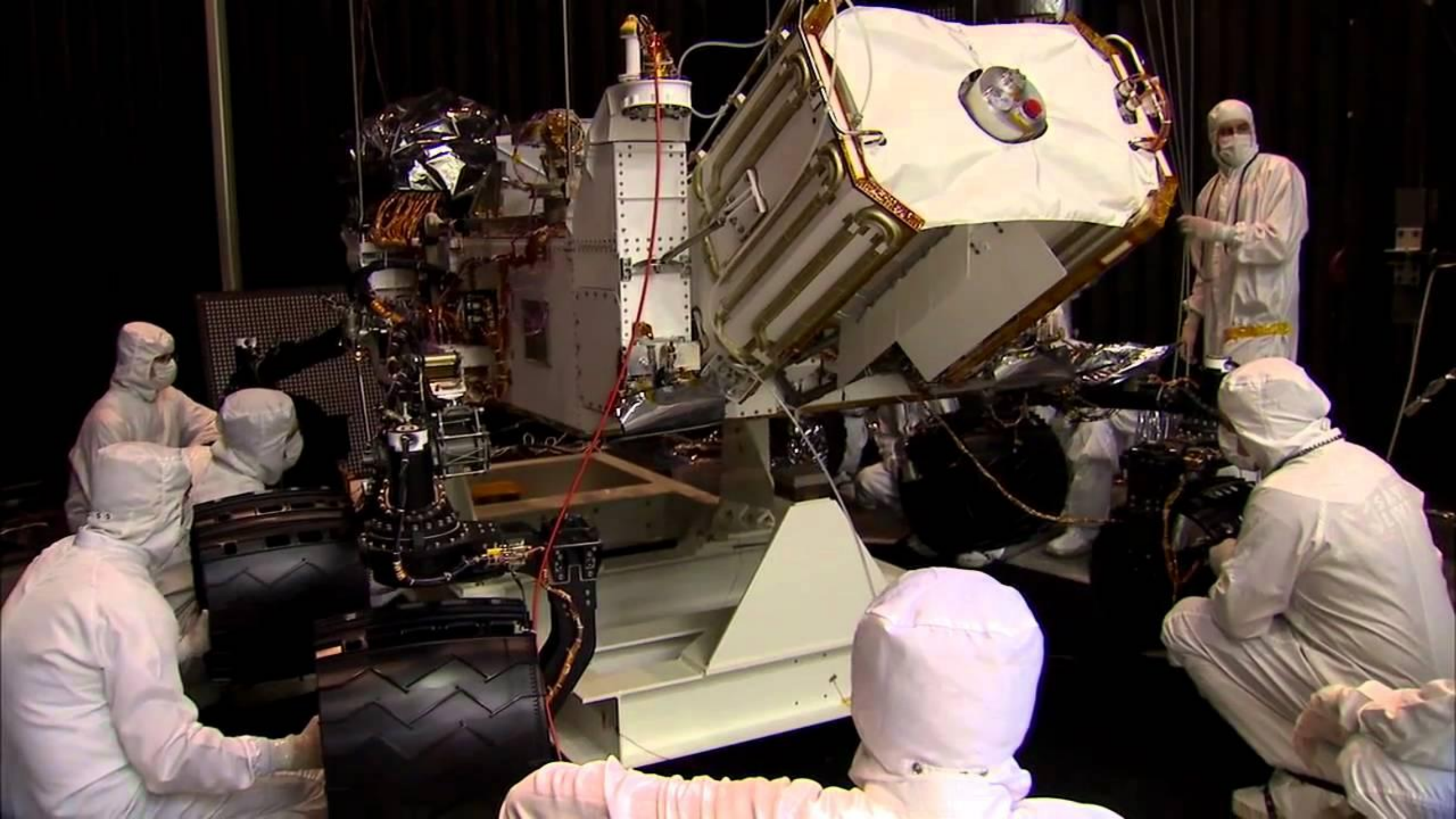

1
00:00:11,060 --> 00:00:08,870
I'm Anthony Godinho and this is your

2
00:00:13,070 --> 00:00:11,070
building curiosity update we're up here

3
00:00:15,440 --> 00:00:13,080
in the twenty five-foot space simulator

4
00:00:16,580 --> 00:00:15,450
building at JPL here on the lab we often

5
00:00:18,769 --> 00:00:16,590
call the environmental test portion

6
00:00:20,150 --> 00:00:18,779
shake and bake we just got out of

7
00:00:21,740 --> 00:00:20,160
vibration testing which is the shake

8
00:00:23,840 --> 00:00:21,750
portion and now we're moving on to the

9
00:00:26,150 --> 00:00:23,850
bake portion which would be our thermal

10
00:00:27,710 --> 00:00:26,160
vacuum testing in order to complete

11
00:00:29,900 --> 00:00:27,720
these tests we have to move the rover

12
00:00:32,510 --> 00:00:29,910
into the chamber we do that with a

13
00:00:33,709 --> 00:00:32,520

series of lift and lower it on to some

14
00:00:35,450 --> 00:00:33,719
ground support equipment that was

15
00:00:39,979 --> 00:00:35,460
previously installed into the chamber

16
00:00:41,810 --> 00:00:39,989
you can see beyond this plastic shield

17
00:00:43,340 --> 00:00:41,820
the rover is being worked on by our

18
00:00:45,619 --> 00:00:43,350
technicians to get it ready for thermal

19
00:00:48,139 --> 00:00:45,629
test when we get ready to start the test

20
00:00:50,930 --> 00:00:48,149
we'll remove that plastic from the door

21
00:00:53,240 --> 00:00:50,940
and a large steel door will come in

22
00:00:54,439 --> 00:00:53,250
close out the chamber at which point we

23
00:00:56,810 --> 00:00:54,449
can start changing the temperature

24
00:00:59,750 --> 00:00:56,820
inside and pumping down the pressure to

25
00:01:02,299 --> 00:00:59,760
simulate market conditions we take the

26
00:01:04,280 --> 00:01:02,309
rover down to about negative 100 to

27
00:01:07,190 --> 00:01:04,290
negative 130 C which is about negative

28
00:01:11,210 --> 00:01:07,200
200 to a negative 150 Fahrenheit and up

29
00:01:13,130 --> 00:01:11,220
to 30 or 40 C which is about 86 to 104

30
00:01:15,289 --> 00:01:13,140
degrees Fahrenheit over that time we

31
00:01:17,719 --> 00:01:15,299
also are gonna be adjusting the pressure

32
00:01:20,359 --> 00:01:17,729
on the rover to simulate the vacuum of

33
00:01:23,450 --> 00:01:20,369
deep space and then taking it to about

34
00:01:26,630 --> 00:01:23,460
1/100 of the pressure on earth we only

35
00:01:28,880 --> 00:01:26,640
get one chance to get on mars and drive

36
00:01:30,859 --> 00:01:28,890
this vehicle around so we want to put it

37
00:01:32,990 --> 00:01:30,869
in the harsh environment that it's going

38
00:01:34,910 --> 00:01:33,000

to see and make sure that not only do

39
00:01:36,859 --> 00:01:34,920
all the instrument function but all of

40
00:01:38,870 --> 00:01:36,869
the temperatures that we expect to see

41
00:01:41,240 --> 00:01:38,880
on the vehicle are accurate to what

42
00:01:42,710 --> 00:01:41,250
we've modeled and planned i'm anthony