

A NASA robotic lander is suspended in the center of a large, dark industrial facility. The lander is a complex, multi-legged structure with a central cylindrical body. It is held up by a vertical metal rod. The facility has a high ceiling with various pipes and lights. On the left, there is a large yellow safety net. The floor is dark and reflective. The overall atmosphere is technical and industrial.

NASA's  
Robotic  
Lander  
Project

MARSHALL SPACE  
FLIGHT CENTER  
HUNTSVILLE, AL

1  
00:00:14,589 --> 00:00:12,580  
NASA's robotic lander project is

2  
00:00:17,470 --> 00:00:14,599  
developing the next generation of small

3  
00:00:19,599 --> 00:00:17,480  
smart versatile robotic Landers capable

4  
00:00:21,700 --> 00:00:19,609  
of conducting exploration and science

5  
00:00:24,070 --> 00:00:21,710  
research on the surface of the Moon or

6  
00:00:25,599 --> 00:00:24,080  
other airless bodies Marshall Space

7  
00:00:28,179 --> 00:00:25,609  
Flight Center has been working on

8  
00:00:30,820 --> 00:00:28,189  
robotic Landers for five years we have

9  
00:00:33,190 --> 00:00:30,830  
developed and designed both component

10  
00:00:34,690 --> 00:00:33,200  
level systems and completed testing on

11  
00:00:37,330 --> 00:00:34,700  
that and we have also conducted to

12  
00:00:40,569 --> 00:00:37,340  
robotic prototype Landers by testing the

13  
00:00:42,610 --> 00:00:40,579

robotic Lander prototype our team of

14

00:00:45,549 --> 00:00:42,620

flight controllers have been able to

15

00:00:48,670 --> 00:00:45,559

work with the various subsystems of the

16

00:00:52,029 --> 00:00:48,680

lander to develop command sequences to

17

00:00:54,400 --> 00:00:52,039

control the land or during flight and

18

00:00:56,670 --> 00:00:54,410

the same way that we would develop

19

00:01:00,340 --> 00:00:56,680

command sequences during a real mission

20

00:01:06,550 --> 00:01:00,350

gb's nav ready to count down to one

21

00:01:10,510 --> 00:01:06,560

nominal people defending vehicle is

22

00:01:13,719 --> 00:01:10,520

hovering testing with rock side on this

23

00:01:15,490 --> 00:01:13,729

robotic Lander prototype allows us to

24

00:01:17,649 --> 00:01:15,500

minute the same thrust that we're going

25

00:01:20,200 --> 00:01:17,659

to need during a real mission and it's

26

00:01:22,270 --> 00:01:20,210

also a convenient propellant to use on

27

00:01:25,179 --> 00:01:22,280

earth since it decomposes into gaseous

28

00:01:27,460 --> 00:01:25,189

oxygen and steam NASA's robotic Lander

29

00:01:29,230 --> 00:01:27,470

project has matured technologies in the

30

00:01:32,469 --> 00:01:29,240

areas of guidance navigation control

31

00:01:34,510 --> 00:01:32,479

flight software ground systems we have

32

00:01:36,969 --> 00:01:34,520

completed combatir a level testing

33

00:01:39,460 --> 00:01:36,979

completed thermal testing you have

34

00:01:41,710 --> 00:01:39,470

conducted stability Lander leg testing

35

00:01:43,960 --> 00:01:41,720

we have also completed Dax thruster

36

00:01:45,780 --> 00:01:43,970

testings that is a heritage propulsion