1
00:00:10,030 --> 00:00:05,020
■Music■

2
00:00:10,050 --> 00:00:15,080
[TESS: Transiting Exoplanet Survey Satellite. Integration and Testing]

3
00:00:15,100 --> 00:00:20,270
■Music■

4
00:00:20,290 --> 00:00:25,480
Spacecraft components are often built in different places. Integration brings all these pieces together.

5
00:00:25,500 --> 00:00:30,550
■Music■

6
00:00:30,570 --> 00:00:35,610
Engineers move TESS's spacecraft structure into a cleanroom at Orbital ATK in Virginia.

7
00:00:43,980 --> 00:00:40,710
■Music■

8
00:00:43,980 --> 00:00:48,900
TESS's four cameras will look for small, regular dips in the brightness of stars.

9
00:00:48,980 --> 00:00:53,160
Called transits, these dips could be caused by orbiting planets.

10
00:01:01,390 --> 00:00:57,370
■Music■

11
00:01:01,410 --> 00:01:05,440
Engineers mount TESS's cameras to their support structure.

12
00:01:05,460 --> 00:01:09,480
The cameras were designed and developed by MIT.

13
00:01:09,500 --> 00:01:13,630

■Music■

14
00:01:13,650 --> 00:01:17,760
The cameras are insulated to protect them from extreme temperatures in space:

15
00:01:17,780 --> 00:01:21,800
248 degrees Farenheit in sunlight and -148 in shade.

16
00:01:30,020 --> 00:01:25,880
■Music■

17
00:01:30,040 --> 00:01:34,210
The cameras are then joined to the spacecraft's main body.

18
00:01:42,460 --> 00:01:38,400
■Music■

19
00:01:42,480 --> 00:01:46,510
Over the next two years, the cameras will image 85 percent of the sky,

20
00:01:46,530 --> 00:01:50,570
searching for other worlds around nearby stars.

21
00:02:02,960 --> 00:01:54,650
■Music■

22
00:02:02,980 --> 00:02:07,020
Engineers deploy the solar arrays. The arrays must full extend

23
00:02:07,040 --> 00:02:11,200
to produce the power the spacecraft needs.

24
00:02:11,220 --> 00:02:15,400
■Music■

25
00:02:15,420 --> 00:02:19,480
This and many other tests ensure TESS will survive the stresses of launch and its time in space.

26
00:02:26,620 --> 00:02:23,580
■Music■

27
00:02:26,640 --> 00:02:30,690
TESS is ready for transport to NASA's Kennedy Space Station.

28
00:02:30,710 --> 00:02:34,760
The mission is slated for launch in 2018.

29
00:02:42,880 --> 00:02:38,780
■Music■