



1  
00:00:06,440 --> 00:00:03,160

[Music]

2  
00:00:08,360 --> 00:00:06,450

hello my name is Jennifer trois / and I

3  
00:00:11,330 --> 00:00:08,370

am the project system engineer on the

4  
00:00:13,370 --> 00:00:11,340

Mars 2020 project I'm standing in the

5  
00:00:15,230 --> 00:00:13,380

spacecraft assembly facility at the Jet

6  
00:00:17,660 --> 00:00:15,240

Propulsion Laboratory where we're

7  
00:00:20,300 --> 00:00:17,670

building up the pieces of the Mars 2020

8  
00:00:21,679 --> 00:00:20,310

flight vehicle I want to show you some

9  
00:00:23,599 --> 00:00:21,689

of the flight hardware we have in here

10  
00:00:26,720 --> 00:00:23,609

that's being built right now to the far

11  
00:00:29,029 --> 00:00:26,730

left you can see the cruise stage the

12  
00:00:33,139 --> 00:00:29,039

cruise stage is the part that gets us to

13  
00:00:35,830 --> 00:00:33,149

Mars then next to the cruise stage you

14

00:00:38,209 --> 00:00:35,840

see our descent stage the descent stage

15

00:00:41,420 --> 00:00:38,219

does our powered descent when we're

16

00:00:43,700 --> 00:00:41,430

landing on Mars it is inside of

17

00:00:47,389 --> 00:00:43,710

something we called Aris shell which you

18

00:00:49,790 --> 00:00:47,399

can see over here the eros shell has a

19

00:00:52,310 --> 00:00:49,800

parachute at the top and the parachute

20

00:00:54,470 --> 00:00:52,320

will deploy and slow us down at Mars and

21

00:00:56,510 --> 00:00:54,480

then to the far right what you see is

22

00:00:58,549 --> 00:00:56,520

the heat shield the heat shield is the

23

00:01:01,189 --> 00:00:58,559

part of the spacecraft that faces the

24

00:01:03,709 --> 00:01:01,199

atmosphere it ablates a little and slows

25

00:01:05,420 --> 00:01:03,719

us down and then we jettison it and then

26  
00:01:07,250 --> 00:01:05,430  
the rover comes down on the bridle and

27  
00:01:10,429 --> 00:01:07,260  
we land on the surface of Mars

28  
00:01:13,070 --> 00:01:10,439  
what you see over here may not look like

29  
00:01:14,929 --> 00:01:13,080  
what it is but this is the beginnings of

30  
00:01:18,200 --> 00:01:14,939  
the rover that's going to drive on Mars

31  
00:01:19,850 --> 00:01:18,210  
it has the electronics on the inside but

32  
00:01:21,859 --> 00:01:19,860  
we don't have the wheels on we don't

33  
00:01:23,990 --> 00:01:21,869  
have the mobility system on we don't

34  
00:01:26,270 --> 00:01:24,000  
have the belly pan on all those things

35  
00:01:28,060 --> 00:01:26,280  
are coming in and over the next several

36  
00:01:30,830 --> 00:01:28,070  
months we're going to finish the rover

37  
00:01:33,200 --> 00:01:30,840  
so the next thing we're going to do is

38  
00:01:35,569 --> 00:01:33,210

take all of the pieces that you see here

39

00:01:37,580 --> 00:01:35,579

in the cleanroom put them together in

40

00:01:38,450 --> 00:01:37,590

the launch configuration and then we're

41

00:01:40,670 --> 00:01:38,460

going to take them through our

42

00:01:42,440 --> 00:01:40,680

environmental tests so they'll see all

43

00:01:44,569 --> 00:01:42,450

the environments that the spacecraft

44

00:01:47,330 --> 00:01:44,579

will see from launch all the way to

45

00:01:49,830 --> 00:01:47,340

landing on Mars and we are on track for