

Hello... my name is Jennifer Trosper and I am the Project System Engineer on the Mars 2020 project.

I'm standing in the Spacecraft Assembly Facility at the Jet Propulsion Laboratory where we're building up the pieces of the Mars 2020 flight vehicle.

I want to show you some of the flight hardware we have in here that's being built right now.

To the far left... you can see the Cruise stage. The Cruise stage is the part that gets us to Mars.

Then next to the Cruise stage you see our Descent stage. The Descent stage does our powered descent when we're landing on Mars. It is inside of something we call the aeroshell, which you can see over here.

The aeroshell has a parachute at the top. And the parachute will deploy and slow us down at Mars.

And then to the far right what you see is the heat shield. The heat shield is the part of the spacecraft that faces the atmosphere. It ablates a little, and slows us down and then we jettison it. And then the rover comes down on the bridle, and we land on the surface of Mars.

What you see over here may not look like what it is, but this is the beginnings of the rover that's going to drive on Mars. It has the electronics on the inside, but we don't have the wheels on. We don't have the mobility system on. We don't have the belly pan on. All those things are coming in, and over the next several months, we're going to finish the rover.

So the next thing we're going to do is take all of the pieces that you see here in the clean room, put them together in the launch configuration, and then we're going to take them through our environmental test. So they'll see all the environments that the spacecraft will see from launch all the way to landing on Mars.

And we are on track for a July, 2020 launch.