



# MINI ROVER

Wheel traction

1  
00:00:09,040 --> 00:00:14,720

So the CADRE rovers are the size of a shoebox.\h  
They have four wheels just like your cars here\h\h

2  
00:00:14,720 --> 00:00:19,600

on Earth, and they also have a stereo camera in\h  
the front, which allows them to take 3D images\h\h

3  
00:00:19,600 --> 00:00:24,160

of different types of terrain. The main thing\h  
that we were trying to study here at SLOPE is\h\h

4  
00:00:24,160 --> 00:00:30,080

given the current wheel design, what terrain can\h  
it move in? So for example, at what slope is the\h\h

5  
00:00:30,080 --> 00:00:34,560

rover able to move forward if it were to climb\h  
up a hill? But then also, if the rover were to\h\h

6  
00:00:34,560 --> 00:00:40,240

encounter rocks or any type of other obstacles,\h  
what obstacle height could they safely clear and\h\h

7  
00:00:40,240 --> 00:00:46,960

then continue on their mission? So the operating\h  
concept behind CADRE is that instead of sending\h\h

8  
00:00:46,960 --> 00:00:52,400

single rovers, you have multiple rovers working\h  
together as a team. They can make decisions\h\h