



Let's meet another NASA Engineer

Andrew Johnson is a guidance, navigation, and control engineer. He's part of the team that developed the Mars Rover Lander Vision System which helped NASA's Perseverance Mars Rover "see" and avoid large hazards as it prepared to land on Mars.

NASA Engineers like Andrew work to solve difficult problems every day. They represent a variety of jobs at NASA and are responsible for everything from designing and developing, to testing, and maintaining spacecraft hardware.

For more about Andrew Johnson check out this inspiring video:

[Faces of Technology](#)

Your Mission

Now it's your turn! Let's see how precise you can be with your aim. Design and build a free-moving wheeled vehicle or any contraption that you can use to aim a ball towards a target. Think about how you will need the model to move in order to reach your target. Does it need to move fast or slow? How will you keep it steady and straight? How will you make sure you can hit the target consistently?

Brainstorm and sketch out your ideas. Be sure to explain what task you are trying to complete with your tool and build, test, and iterate on your model. Be sure to test your model several times and make changes as needed to ensure it gets to the target. Don't be afraid to try different ideas. If it doesn't work, that's ok, just try something new.



Let's meet another member of the NASA Grounds Crew

Jeff Adams is the Logistics, Engineering and Transportation Team Lead at NASA. His team works behind the scenes to move full-scale core stage test hardware from NASA's rocket factory, Michoud Assembly Facility near New Orleans, to test facilities at NASA'S Marshall Space Flight Center in Huntsville, Alabama.

The team spends months planning and developing detailed transportation procedures to ensure the test articles are delivered without a mishap. They also come up with contingency plans – just in case.

Learn more about Jeff Adams:

[I Am Building SLS](#)

Your Mission

Now it's your turn to design a vehicle or device that makes moving large and heavy objects easier. Create something that can lift and move large objects like a rocket safely. Make sure to think about how you'll control the way your device moves and ensure that the objects you're transporting aren't damaged.

What do you need to design to hold the size and weight of the object? How will you keep it from moving or falling? Remember this is a prototype or model so it doesn't actually need to be at full scale to move a large object.

Brainstorm and sketch out your ideas in your Engineering Design Notebook. Identify the object you want to move. Build, test, and rebuild your model to make it better. Don't be afraid to try different ideas. If it doesn't work, that's ok you can try something new just like NASA does.