



Your PLANETS
Engineering Notebook
for:

Worlds Apart!
**Engineering Remote Sensing
Devices**

Name: _____

Ready, S.E.T., Go!



Missions to Mars

1. Choose one type of survey mission to design for:

- **Global Survey:** a long-term mission to explore and map a new planet or moon
- **Landing Site Selection Survey:** a short-term mission to choose the best place to land a robot or human on the surface

2. Figure out what your survey mission needs to do:

- **Level of Detail for Images:**

High Detail

Low Detail

- **Measuring Shape and Texture of Surface:**

Required

Optional

- **Measuring What the Surface Is Made Of:**

Required

Optional

3. List the limits on your design:

- **Space Required:** All instruments must fit inside the fairing without overlapping.
- **Power Required:** _____
- **Data Volume Required:** _____
- **Weight Limit:** _____



Our Engineering Design Process





NASA Career Spotlights



Photo Credit: N4 Solutions

Dr. Berhanu Bulcha

My job at NASA is to create advanced technology that collects images and data on planetary bodies, like Saturn's moon Enceladus, so that we can detect what molecules are there and look for potential life in space.



Mike Scott

My job at NASA is to make sure we always have enough power (and battery charge) on the space station.