

# Build A Model Solar Probe

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can send spacecraft! Our spacecraft, based on the Parker Solar Probe, will have several tools to tell us about the Sur



Parker Solar Probe image: NASA.

## Materials Needed:

Instrument Shapes printable (or draw your own), toilet paper tube, thin cardboard (from a cereal box or similar packaging), glue, tape, scissors, aluminum foil, colored pencils or crayons.

## Instructions:

Step 1: Color each instrument shape. Glue them to thin cardboard to make them sturdier, then cut each one out.

Step 2: Tape the solar panels to the straight edges of the protective shield. Tape or glue four of the long thin rectangular probes to the back of the protective shield, one on each corner (see picture).

Step 3: Tape the protective shield on one edge of the toilet paper tube. Tape the last long thin probe on the other end of the tube.

Step 4:

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Step 5: Glue or tape the rest of the instruments around the tube: the small rectangle is a telescope, and the hexagon and circles are instruments to measure the solar wind.

Step 6: Add more features to your solar probe! What do you wonder about the Sun? What mysteries will your probe explore?

**Did You Know?** Scientists have sent many spacecraft to study the Sun, each designed for a specific purpose. The Parker Solar Probe will fly closer to the Sun than any other spacecraft to study the Sun (inner } Œ outer atmosphere).

The Solar Orbiter has special instruments to measure the Sun's magnetic field, waves, and plasma.

The Solar & Heliospheric Observatory (SOHO) investigates both the Sun's internal structure and its outer layers.

Left to Right: Parker Solar Probe (NASA/Johns Hopkins APL/Steve Gilman), Solar Orbiter (ESA/ATG medialab), SOHO (NASA).

**Try This:** Design your own spacecraft to study the Sun!

- x Think about what questions you want your spacecraft to investigate.
- x What kind of instruments will you need to explore space?

x

x

x

# Exploring the Sun From Far Away

The Sun (also called Sol) is the star at the center of our Solar System. Its gravity holds the solar system together. The Sun's warmth and light make life possible on Earth.



