Example Technical Drawings for the Junior Solar Sprint Competition

Full lesson plan available at:

Rules for design drawings in the Junior Solar Sprint competition

• Your documentation portfolio must include design drawings showing your car from a minimum of two views (such as top and side views).
• The drawings must be neat and include dimensions.
• Drawings can be done with a computer-aided design (CAD) program or hand-drawn. Hand drawings should be done with a ruler.
• Drawings should be two-dimensional (2D). Do not submit a three-dimensional (3D) model or drawing of your car.
• This document includes examples of both CAD and hand-drawn drawings.
Notes for students and teachers:

- Dimensions that are shown in one view do not need to be repeated in the other view. For example, the length of the cardboard piece is labeled in the top view, so it does not need to be shown in the side view.
- Use thicker, darker lines to represent the parts of your car, and thinner, lighter lines for the dimensions.
- Use dashed lines to represent “hidden” parts that are behind something. For example, when looking at the car from the side, the gears are hidden by one of the wheels, so they are drawn with dashed lines.
TOP VIEW (SOLAR PANEL REMOVED)
1:1 SCALE

BATTERY PACK

CORRUGATED CARDBOARD

MOTOR

GEARS

WHEEL

AXLE

1" 7"

2.45"

4"

1.75"

1.25"

1.5"

5.5"
SIDE VIEW (WITH SOLAR PANEL)
1:2 SCALE

- Motor
- Pinion Gear
- Spur Gear
- Battery Pack
- Cardboard Spacer
- Wheel
- Solar Panel

13°