



Solar Racer Classroom Curriculum Day 3

Day three of a three-day curriculum set. Explore circuitry, solar cells, drivetrains and more!

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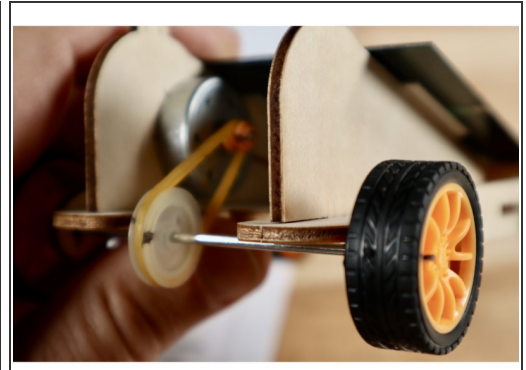
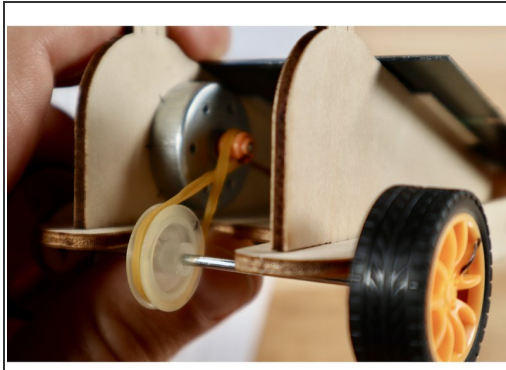
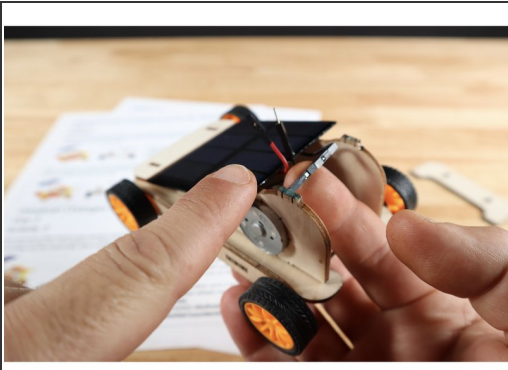


INTRODUCTION

Day three of a three-day curriculum set. Explore circuitry, solar cells, drivetrains and more! Find download links to this lesson and all individual data sheets, templates etc at the bottom of this guide.

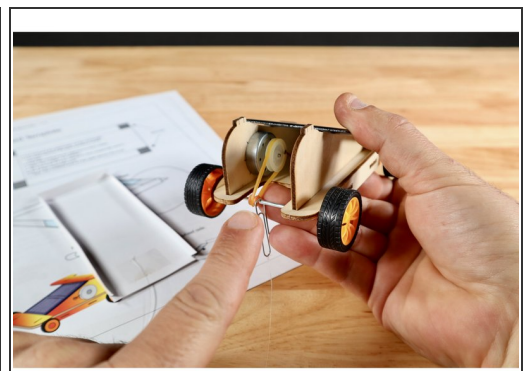
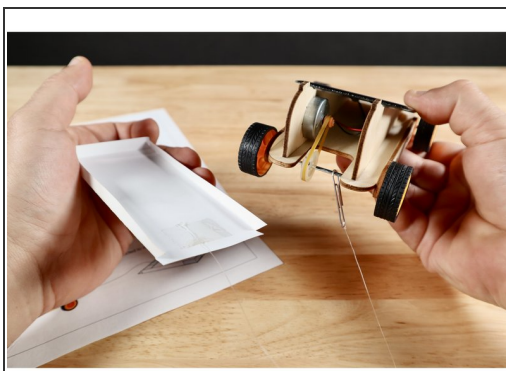
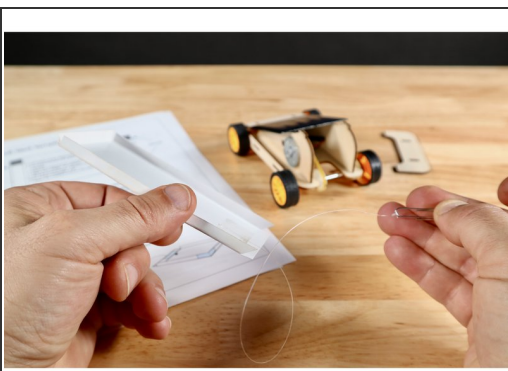
 TOOLS: • Scissors (1) • Internet access and AV setup (1)	 PARTS: • Solar Racer 2.0 Kit (1) • Pennies (1) • Clear Tape (1) • Black Magic Marker (1) • Fishing Line (1) • Paperclips (1) • Writing Utensils (1) • Printable Data Sheet (Student Version) (2) <i>2 total data sheets for Day 3</i> • Printable Template (1) <i>Tow sled template</i>
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Step 1 — Helpful Photos of Setup Elements



- Change the direction the motor spins by disconnecting standard black to black/ red to red wiring and rewiring black to red.
- Change the direction the motor spins by putting a twist in the rubber band that connects the orange driver pulley wheel to the white follower pulley wheel.
- Return it to standard and mark dots on the orange pulley wheel, the white pulley wheel and the rim of the rear right wheel. Use these dots to help keep track of the number of rotations in the next investigation.

Step 2 — More Helpful Photos of Setup Elements



- The tow sled will help you determine how much pulling force each pulley wheel ratio produces.
- Tow sled attached with standard pulley wheel ratio in the drivetrain.
- Tow sled attached with inverse pulley wheel ratio in the drivetrain.