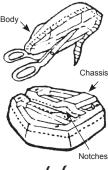
## **Solar Racer Assembly Instructions**

Note: Do not attach solar cell until step 10.

There are three clear plastic parts to the car: The body, chassis and the axle bracket.

- 1\* Cut out the body with scissors. First cut away the bulk of the plastic then trim the last 1/4-inch (ribbed section) on the final cut. It is much easier to make the cut if you hold the car above the scissors as illustrated.
- 2\* Use scissors to cut out the chassis. Follow the groove line as illustrated. Cut out the center channel and notch both sides so the motor shaft and drive wheel don't rub.
- 3 If you paint the body, use masking tape to cover the windshield. Sand the inside with #0000 steel wool so the paint will stick. Paint inside the body.
- 4 Set a wheel on a table with the smooth side up (spindle pointing away from motor). Press the motor onto it. Don't push against the wires. The wires can break off. Push tire on wheel
- 5\* Set the motor on the chassis. Check how it fits and make sure the wheel spins freely before peeling backing off the tape on the motor. Press on firmly.
- 6 Attach the chassis to the body. Insert the four nylon push pins from top of body down through chassis as illustrated





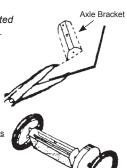


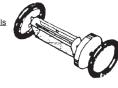


\*Extra Assembly "Hints" located on back of these instructions

- 7 Cut out axle bracket from plastic around base as illustrated. Please recycle remaining plastic.
- 8\* Slip the axle into the axle bracket. Twist and push the wheels onto the axle with the bracket in between. Be sure to push the wheels on with the smooth side facing out. Push tires onto the wheels. Check to see that the wheel assembly fits inside the body. Adjust the wheels accordingly.
- 9\* Attach the wheel assembly to the body by using the metal screw, nut and washers. Place a drop of Super Glue on the bottom of the screw head and washer to help secure. (Optional)
- 10\* Attach solar cell to body. Push the solar cell wires through the hole in the body behind the cockpit. Peel the tape backing by the front wires only and press the solar cell onto the body.
- 11 Run wires from the cell under the chassis and out to the side to connect with the wires from the motor. Twist ends of the same color wires together using wire nuts. Tuck wires and wire nuts under the chassis as illustrated. Test your car in the sun. If the car runs backwards. just switch the wires.

RECYCLE ALL SCRAP PLASTIC AND PACKAGING. READ WARRANTY AND ALL CAUTIONS!



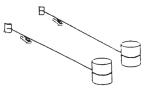






## Solar Racer Track Instructions

- 1 Don't play with racers in the street! Find a smooth concrete surface (tennis court, basketball court) and good sunlight.
- **2** Fill four coffee cans with sand or dirt and place them at the corners of a rectangle 25 feet long and 4 feet wide.
- 3 Tie fishing line between the cans, 4 inches off the ground, to create two 25-foot-long guide ways.
- 4 Place a rag in front of the cans at both ends of the track to keep your racer from crashing into a can.
- **5** Alternate method: Tie fishing line directly to racer and adjust back wheels to race in a circle.



6 Drill a small hole in the fin that sticks out of the cockpit and attach a paper clip. Adjust the axle bracket to make the racer go straight. Clip your racer to the line and race!



Racer works only in direct sunlight.

## Assembly "Hints":

- · Allow time for adjustments.
- For Steps 1 & 2: Be sure to cut enough plastic off around the groove. Excess plastic can drag on the ground or the motor slowing your PHOTON down.
- For Step 5: DO NOT peel tape backing until testing the motor positioning in cavity, making sure the wheel is spinning freely in the cut out chassis and two notch openings, and that the motor is level. Once adjustments are made you may peel the tape backing and secure motor in cavity by PRESSING FIRMLY.
- For Step 8: Once your PHOTON is assembled, it is best to rotate each wheel with your fingers and align each tire to be <u>straight</u>.
- For Step 9: Screw and nut need to be tightened firmly.
- For Step 10: If you DID NOT choose to use super glue on the screw head and washer, and you wish to adjust your axle bracket for turning and circles, DO NOT peel the smaller tape strip at the back-end of the solar cell, so you can lift and re-tighten the screw. Otherwise go ahead and peel the back-end tape strip.