

## How to build the HP Formula Racer

### Tools for Assembly

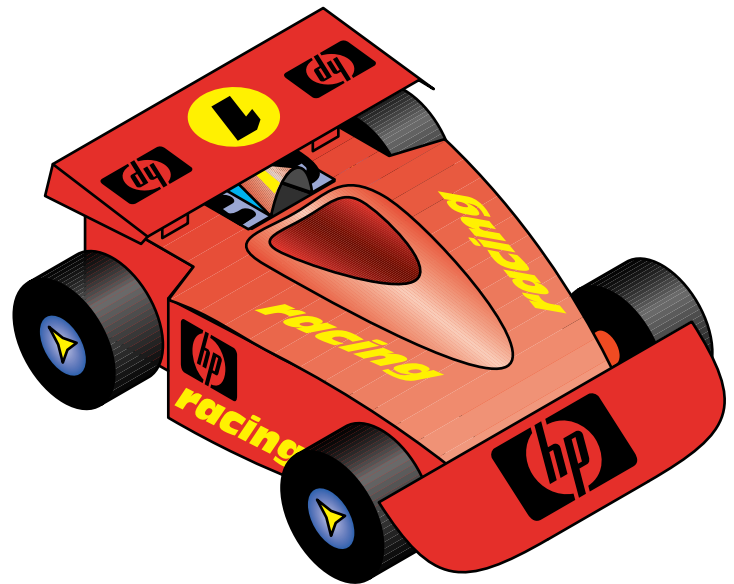
- 1) Glue stick (spray-adhesive is useful too)
- 2) Scissors
- 3) 1/4" Hole Punch (hand held version)
- 4) Black Felt Tip Marker
- 5) A Few 1/4" Drinking Straws
- 6) Semi-sharp Pencil
- 7) Straight Edge (ruler)

### Quick Tips for Assembly

- It is recommended to print on HP Premium Media paper. Apply glue or spray-adhesive to poster board or file folders and then stick the prints to the pre-glued stock.
- Glue is applied to the front side (or back side if marked with an "x") of the gray shaded areas. During assembly, apply glue-stick or paste to both adhering faces. Don't let the glue dry before assembling parts.
- Fold edges where gray meets color. There are some tick lines indicating where to fold in color on color areas.
- After cutting out the Outside Treads and Inside Radials, pull them length-ways between your thumb and the edge of a ruler to help curl the paper.
- Use a black felt tip marker to color in white areas along edges and corners. Also the backside of the top spoiler tabs and engine exhaust pipes.

### Assembly

**1) Cutting Up-** Cut out all of the car parts. Punch holes where needed (indicated by the circle-targets). Double-punch the holes in the sides of the car to make them slightly larger than the holes for the wheels and disk brakes.



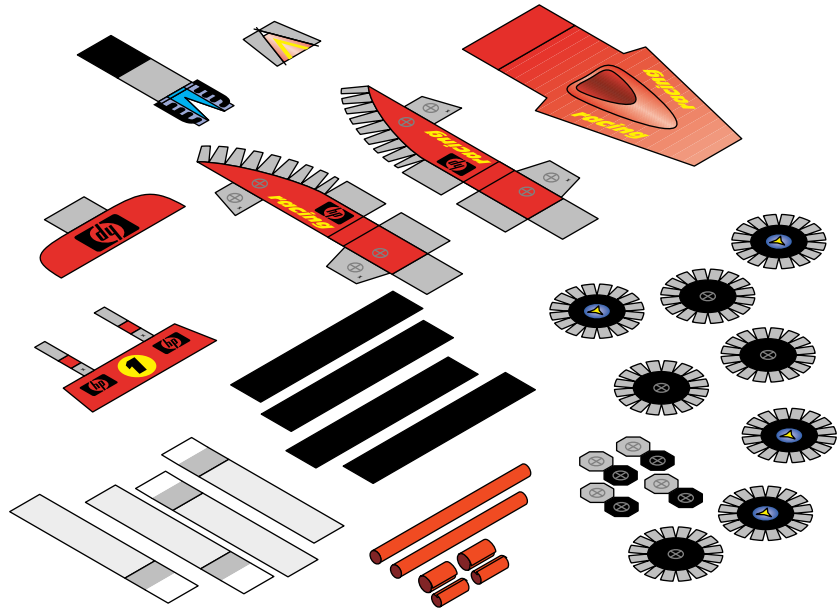
**2) Preparing Parts-** Fold all of the tabs and edges before applying glue to them. A straight-edge (ruler) helps with the folding along longer lines. Pull the Tread and Radial strips length-ways between your thumb and the edge of a ruler to help curl the paper.

**3) Assembling the Wheels-** Start by gluing the each Inner Radial together. One end of the radial curls around and overlaps the other end (glue to the edge of the shaded area). Apply glue to the unprinted side of the tabs on a pair of Inside/Outside Wheels. Gently sandwich the Inside Radial between the Inside and Outside Wheels and your thumb and forefinger of one hand and roll/fold down the tabs around the Radial with your other thumb and forefinger. Then glue down the Outer Tread to the Wheels and Radial. Finally, glue and fold a Disc Brake together and then glue it to the center of the Inside Wheel. Do all four wheel sets first, so the glue will have time to dry before inserting the axles.

**4) The Engine is Next-** There are six folds and two extra little cuts to be made on the Engine Assembly. Fold over and glue the black and gray panels up to the exhaust manifold. Make a small cut along the edge of the exhaust manifold to the inside fold line, then fold it over. Use the pointed end of a pencil to help curve the intake cowling into a half-cone shape before slipping it into the v-slot of the Engine Assembly.

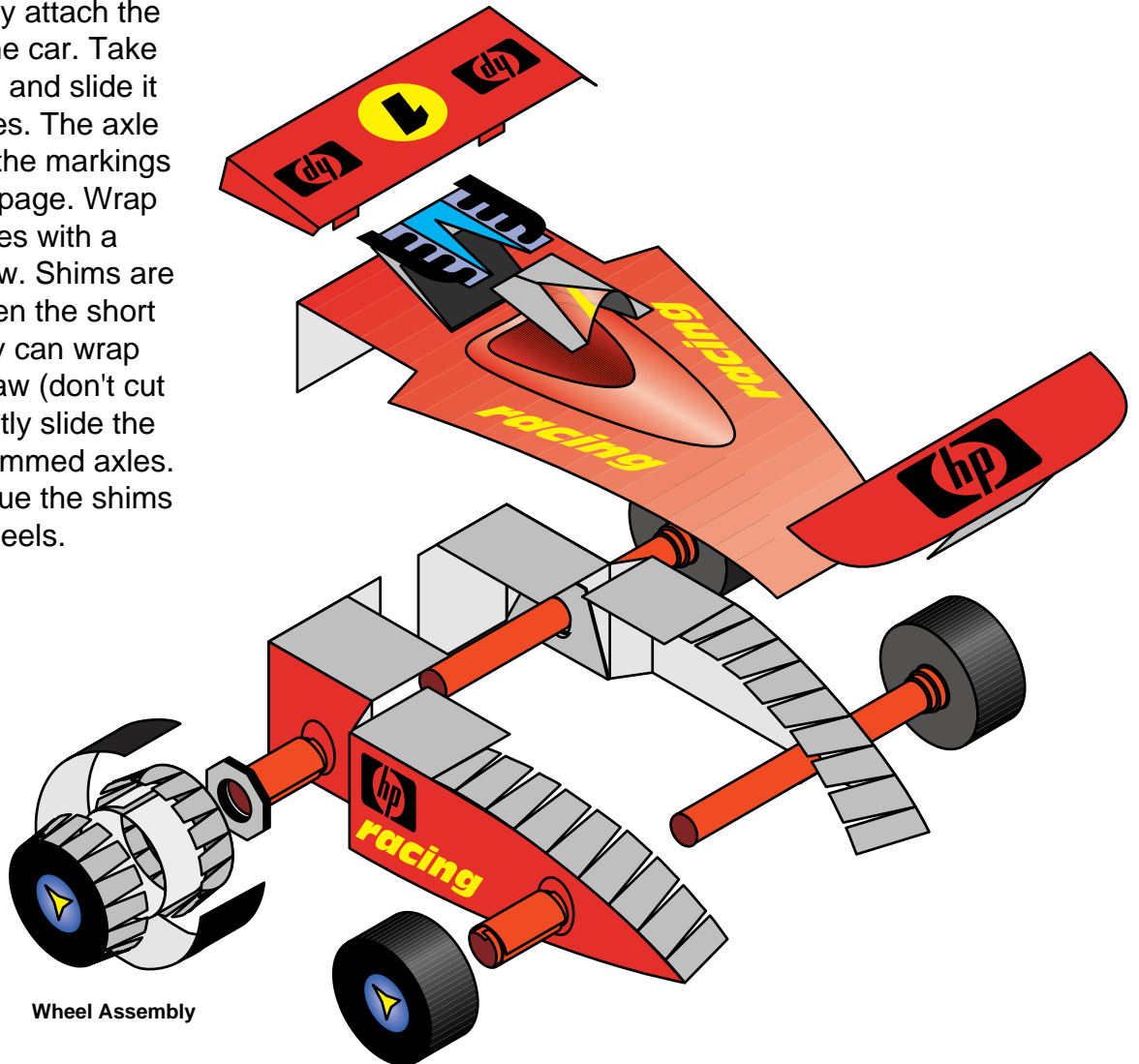
**5) The Body and Spoilers-**

Next, assemble the car top to the sides. Work from the back of the car, gluing the back flaps to the top flap first. Gently align and press the gluey tabs from the car sides to the car top. Glue the front spoiler to the car's front, making sure to leave enough room for the front tires. The rear spoiler has tabs that are folded under and glued to the underside of the spoiler and to either side of the engine.



**6) The Axles-**

Finally attach the tires and axles to the car. Take the soda straw axle and slide it through the car sides. The axle length is based on the markings on the edge of this page. Wrap each end of the axles with a couple of soda straw. Shims are made by slitting open the short shim straws so they can wrap around the axle straw (don't cut the axle straw). Gently slide the wheels onto the shimmed axles. You may want to glue the shims to the axles and wheels.



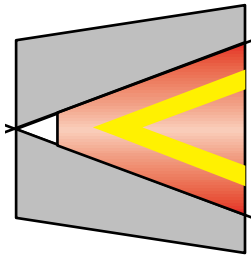
Wheel Assembly

Rear Axle Length

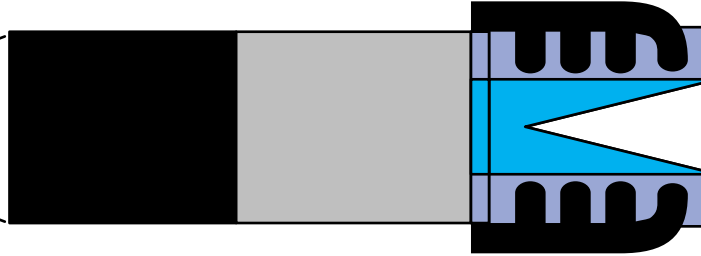
Shim 2 Length

Shim 1 Length

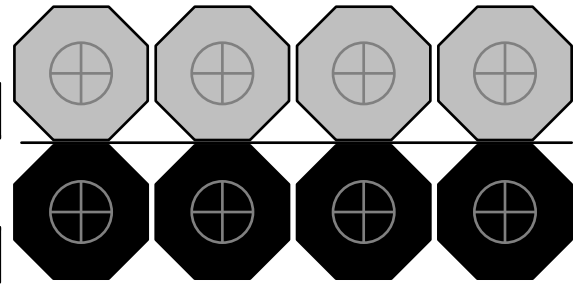
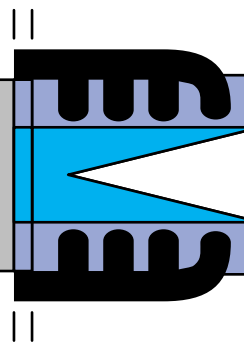
Front Axle Length



Air Intake Hood



Engine Assembly



Disk Brakes

Outside Treads

Inside Radials

Outside Wheels

Inside Wheels

