

## Cautionary and Warning Statements

- This kit is designed and intended for educational purposes only.
- Use only under the direct supervision of an adult who has read and understood the instructions provided in this user guide.
- Read warnings on packaging and in this manual carefully.
- This kit is designed to be launched only with the AP Dragster Launcher. Use all the safety guidelines provided in its user guide.

## Materials Included

- Design sheet
- Sheet of laser-cut wooden parts
- 4 axle bushings
- 4 wheels
- 2 Delrin axles
- Launch tube
- Tube cap
- Straw
- Self-adhesive glue lines
- Sandpaper

**Teacher's Note:** When using 10 and 30 packs, the design sheet will have to be photocopied to have enough for the entire class.

## Items Required (not included)

- AP Dragster Launcher (for launch)
- Air pump (for launch)
- Colored pencils or markers
- White glue (such as HD Bond II)
- Glue stick
- Scissors

## Preparing the Design Sheet

- 1) Unfold the design sheet and choose what half you want to use. One half has a car body that can be colored and cut out. The other half just has centerlines to help you draw your own car. If you draw your own, make sure to draw mirror images of the design on both sides of the dotted lines. Also, make sure your design is no longer than 7-1/2".
- 2) If you wish, color the car design. Cut out the design.

3) Fold the design in half on the centerline. Open the sheet back up and apply glue stick on both blank sides of the design – above the dashed lines. You should be able to see the lines through the paper.

4) Refold the sheet in half.

### Step 4

Press the glued sides together firmly.

Carefully trim off the very edge of the sheet's fold.



5) Make a crease along both dashed lines, folding the edges of the paper away from each other. Set this aside.

## Making the Chassis

The chassis is the frame for your dragster. It is very important as it holds everything together.

1) Pop out the parts from the wooden sheet. There are four small parts with holes in them. The fifth piece is long and narrow.

2) Put a dab of white glue on each side of a corner on the long piece. Push one of the small pieces on it so the word *Top* is on the side that says, "TOP – STRAW."

### Steps 2-3



3) Repeat Step 2 with the three other small pieces.

4) Get two glue lines. Pull the paper backing off one side of each glue line. Place them on each end of the chassis center between the two lines where it says, "TOP – STRAW." Pull off the clear plastic side of the glue lines.

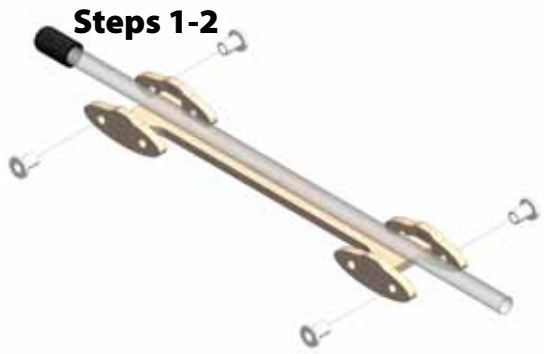
- 5) Put the tube cap on one end of the clear tube. **Tip:** To ensure the cap stays on, glue it in place. Center the tube over the chassis as shown and gently press it down. The end with the tube cap will be the front of your dragster.



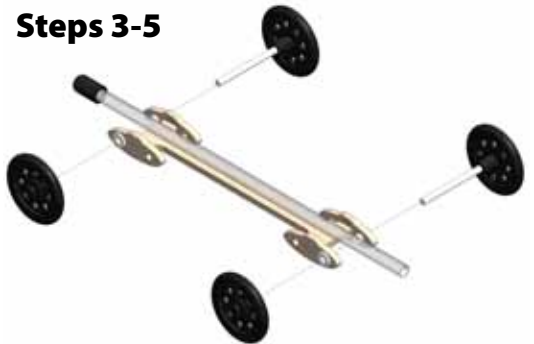
## Putting on the Wheels

Be careful not to bend the axles or your dragster won't roll very fast. If there are burrs on the ends of the axles, smooth them out with the sandpaper.

- 1) Find the four axle bushings. Push the narrow end of a bushing into one of the small piece holes. Choose the hole closer to the end of the dragster.
- 2) Repeat Step 1 with the other three bushings and small pieces.
- 3) Insert an axle into the hole in the center of a wheel. Push the other end of the axle through the axle bushings on the front of your dragster.
- 4) Carefully, press another wheel onto the other side of the axle. If needed, turn the dragster sideways and press down on the wheels against your worktable or desk.
- 5) Repeat Steps 3 and 4 with the last axle and wheels on the back of the dragster.



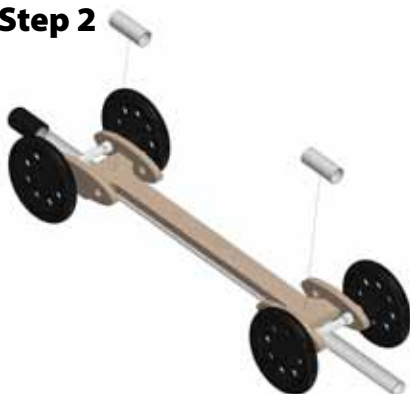
### Steps 3-5



## Adding the Final Touches

- 1) Cut two pieces of straw that are each about 1/2 inch. Take a glue line and cut it in half. Turn over your dragster.
- 2) Pull the paper backing off one side of each glue line half. Place one on each end of the chassis center. On top of each glue line half, press a piece of straw. Be sure that the straw pieces are in line with the chassis as shown. Turn over the dragster.
- 3) Find the car body made from the design sheet. Using a glue stick, apply glue to the side of the two small flaps that face away from the car body.
- 4) Align the car body over the straw on top of the chassis. Press it down over the straw, rubbing the flaps to seal the glue to the straw. Let the dragster sit a few minutes so the glue can dry.

### Step 2



### Step 4



Your dragster is now finished. Using the AP Dragster Launcher, you can launch your dragster using the power of air.

**Caution:** When launching, use all the safety guidelines provided in the *AP Dragster Launcher's User Guide*.