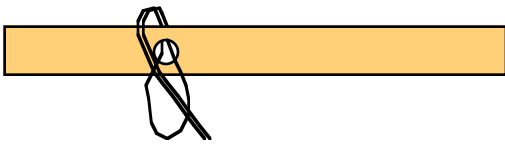


Mousetrap Powered Cars

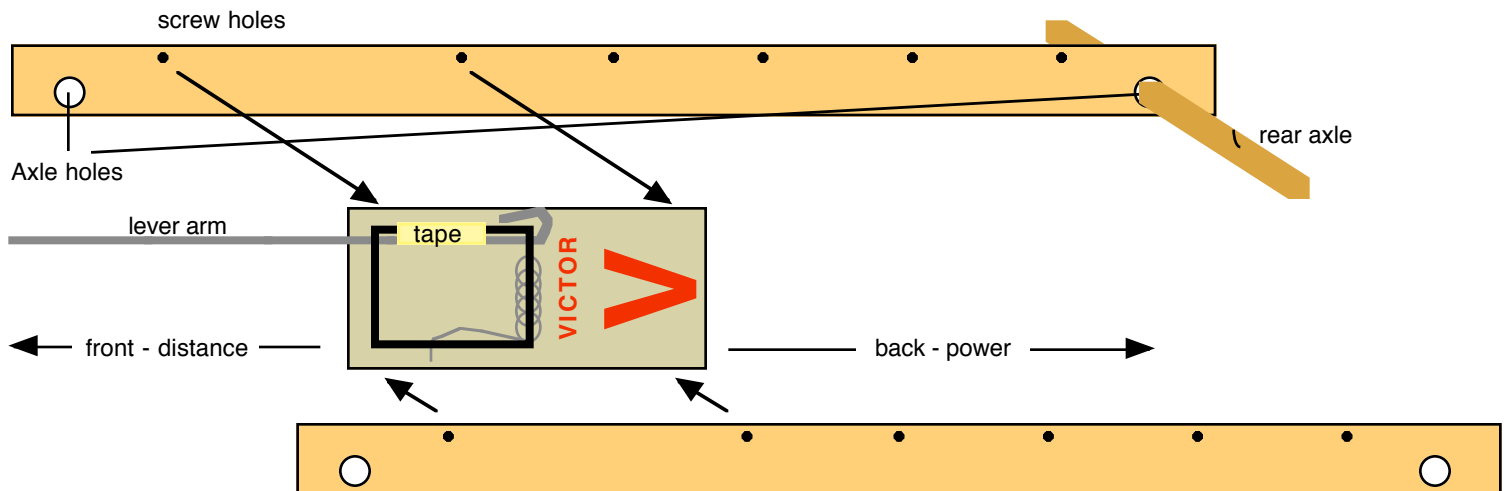
Pack 73 September activity
9/18/02

- Hints:
- **Orange** marks the side rails **front**
 - Large axle holes go down on side rails
 - V on the mousetrap points to the car's rear
 - Mousetrap should "snap" toward the car's front
 - Where to Locate the "engine" (mousetrap)?
 - Toward the front for long distance
 - Toward the rear for speed and power
 - Axle hook should be small enough to release line
 - Attach string to lever arm where it "meets" rear axle
- Parts List:**
- 2 Wood side rails, Orange is Front
 - 1 Victor Mouse trap
 - 1 Wood axle (rear)
 - 1 Lever arm
 - 2 Rear wheels (CDs)
 - 2 Front wheels (push pops)
 - 1 Axle hook (2" thin copper wire)
 - 1 Length of string (fish line, 12")
 - 2 Rear wheel hubs (1/4" L faucet washers)
 - 4 Screws
 - 1 Length of masking tape

- 1) **Wood axle and axle hook wire:** Insert both ends of wire in hole of axle. Thread the ends back around the axle into the loop. Snug it up and snip off all but 1/8"



- 2) **Mousetrap and 1 side rail:** Attach 1 side rail to the mouse trap with 2 screws. Orange should be in the front. The V of the trap should point to the rear. The large axle holes go down. Locate trap toward front for distance cars and rear for speed cars.



- 3) **Assembly, other side rail, rear axle:** Install the rear axle with long end on right side of V. Attach other side rail making sure orange is front.

- 4) **Lever arm, 2" of tape:** With the trap "closed" take the lever arm and slide the pointy end under the right side of the spring under the pivot. Engage the hook on the pivot and pinch closed with pliers. Tape the lever arm to the side of the "snapper".

- 5) **Lever arm, 2" of tape, string:** Bend the "snapper" back and note where the lever arm meets the rear axle. Return snapper. Take string, fold in half and "hook" the right side of the rear axle. Match the string ends together and lay along lever arm. Tape ends to lever arm where the axle met the level arm. Wrap tape around lever arm with each turn fold the string ends under tape (interleave). This prevents slippage.

- 6) **Wheels, washers:** Take both CDs (back wheels). Rim the holes with some tape as the washers are slightly small. Insert washers in holes. Put back wheels on axle. Use push pops for front wheels.

- 7) **To load the trap:** Bend the snapper back and latch it with the bent crook. Hook the loop onto the axle wire, wind it up and race 'em!