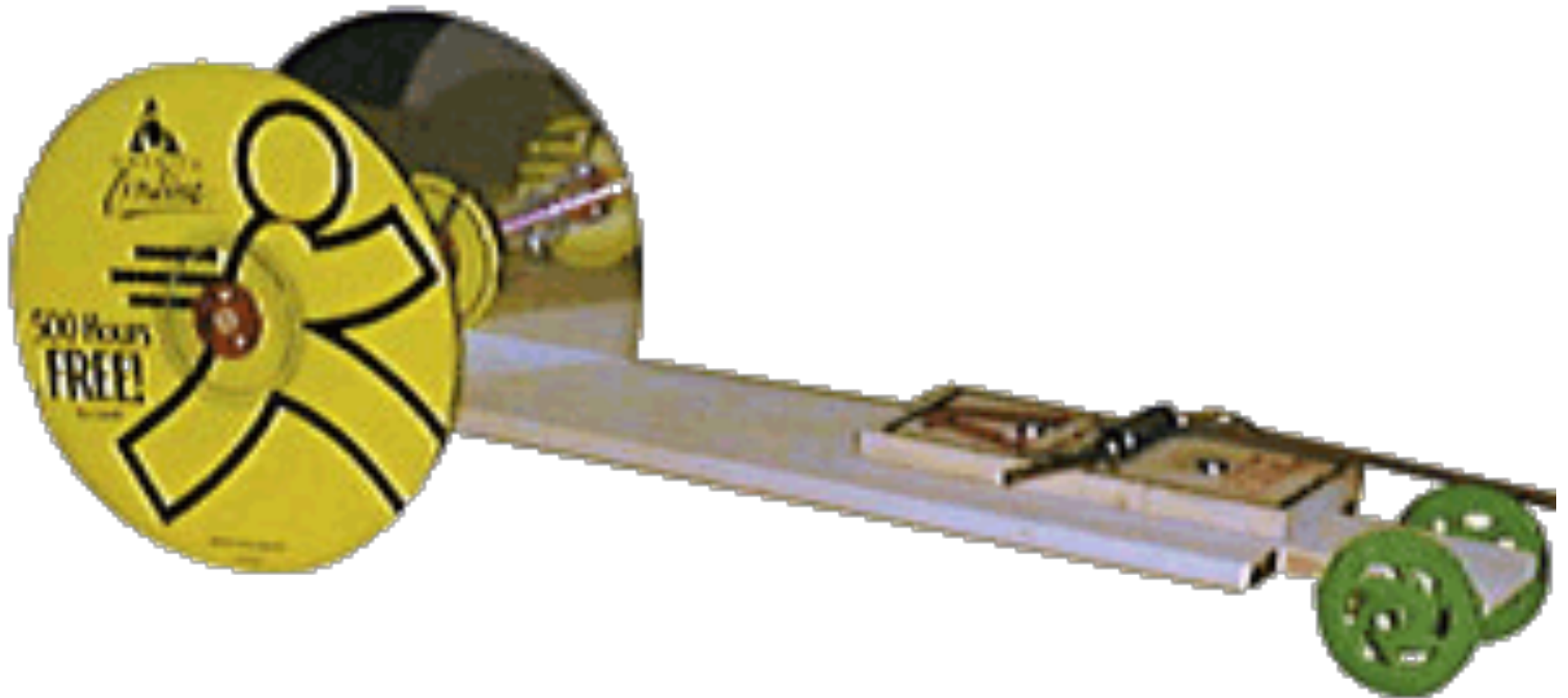
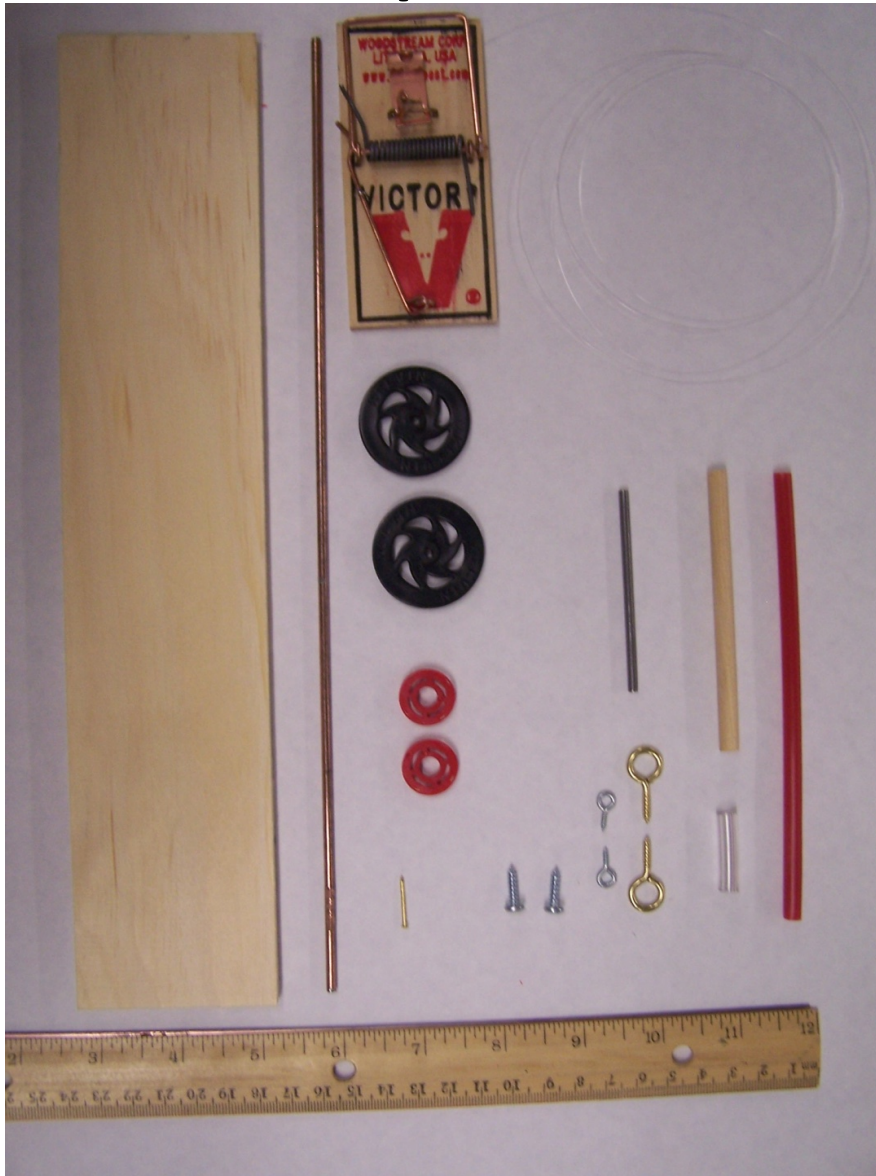


# How to build a Mouse Trap Racer



# Step 1 – Identify the parts.



- Mouse trap (1)
- Rear wheels inserts (2)
- Used CDs (2)
- Front wheels (2)
- Wooden board (1)
- Fishing line
- Large eyelet (2)
- Wooden dowel – rear axle (1)
- Small eyelet (2)
- Small nail (1)
- Short metal rod – front axle (1)
- Long metal rod – lever
- Wood screws (2)
- Clear plastic tube
- Balloons – optional (2)

# Step 2 – Gather the tools



Ruler

Pencil

White glue

Glue gun (optional)

Coping saw

Scissors

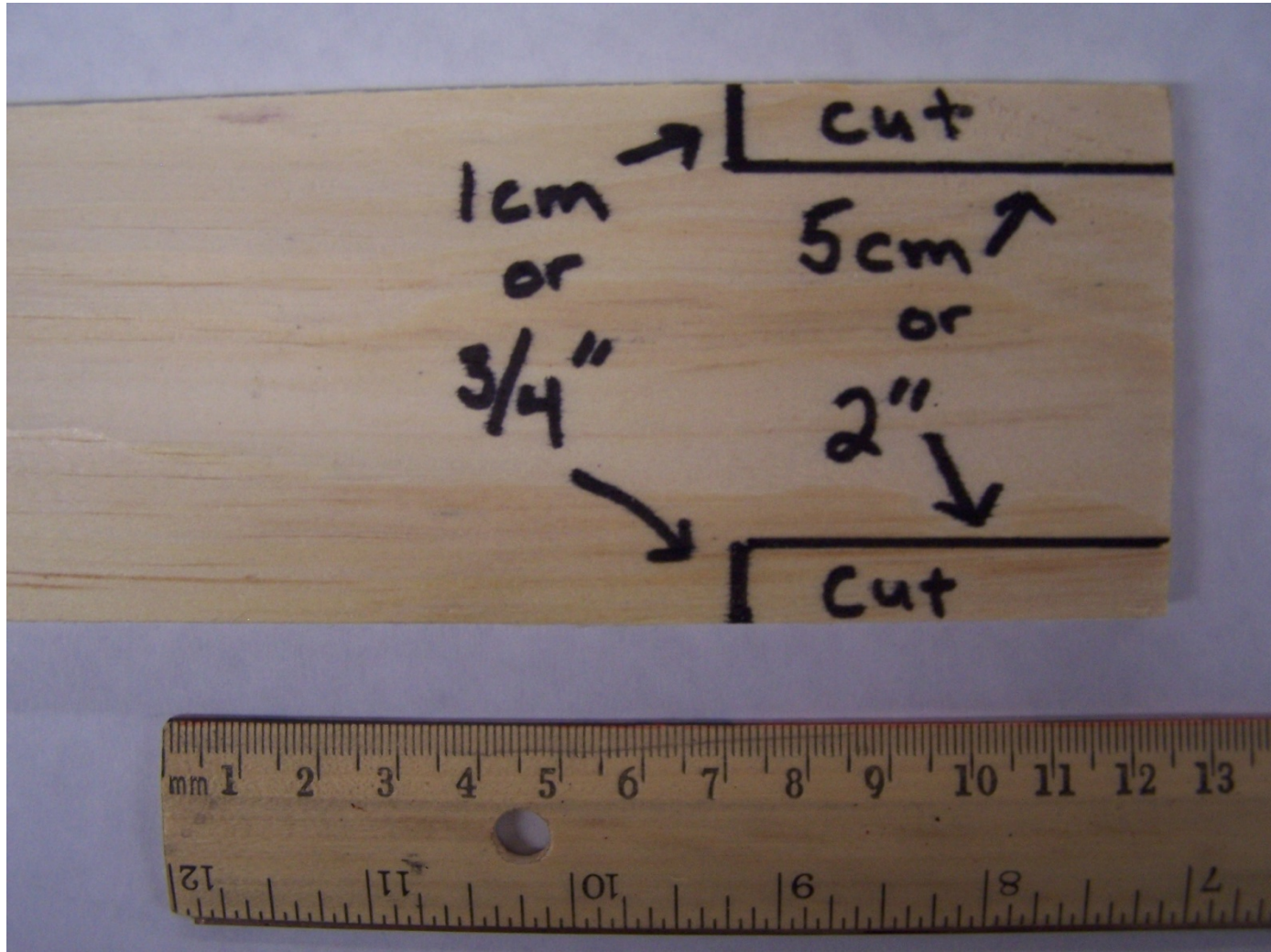
Hammer

Screwdriver

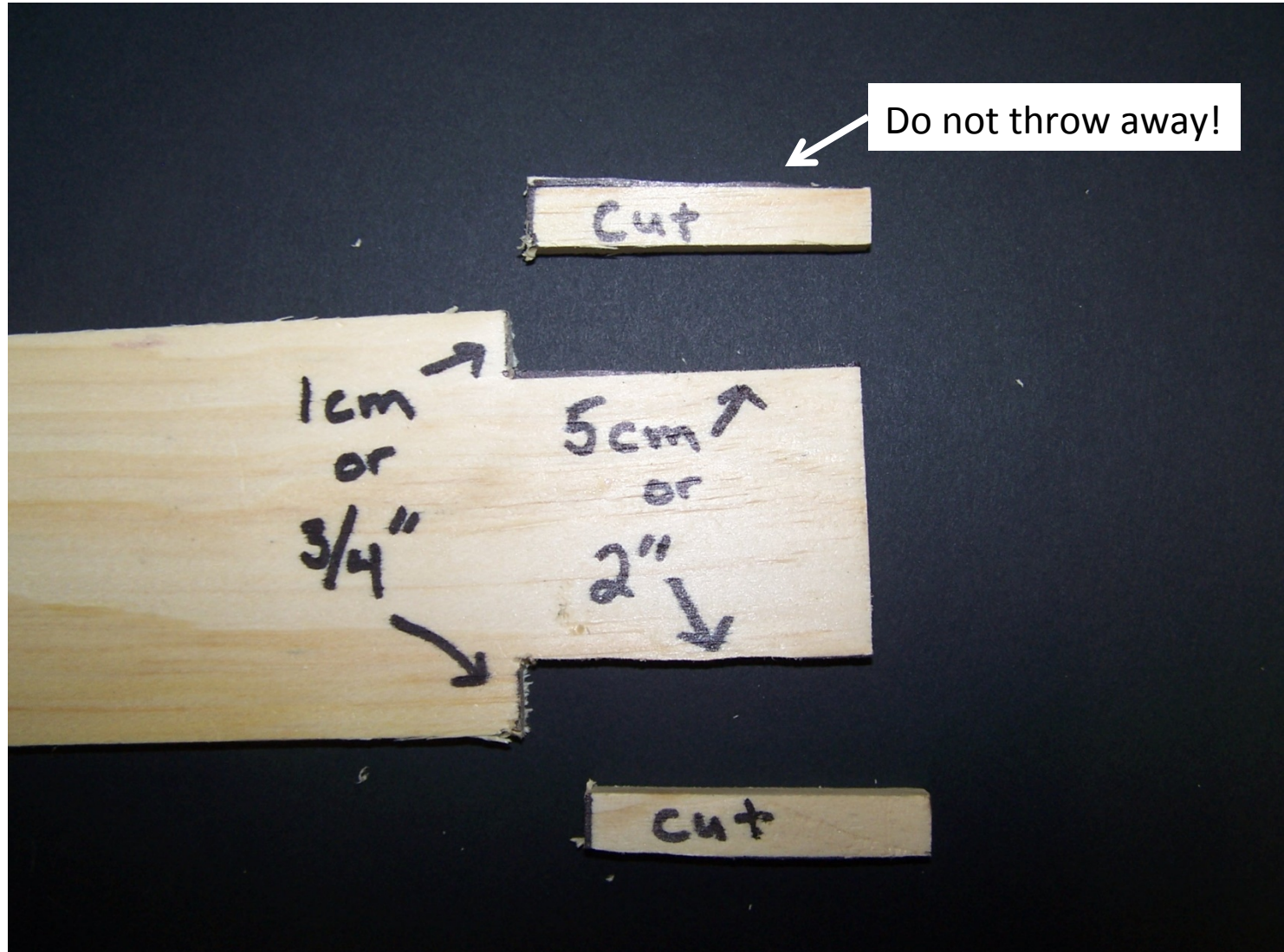
Wire cutters

Pliers

# Step 3 – Mark the board



# Step 4 – Cut the board

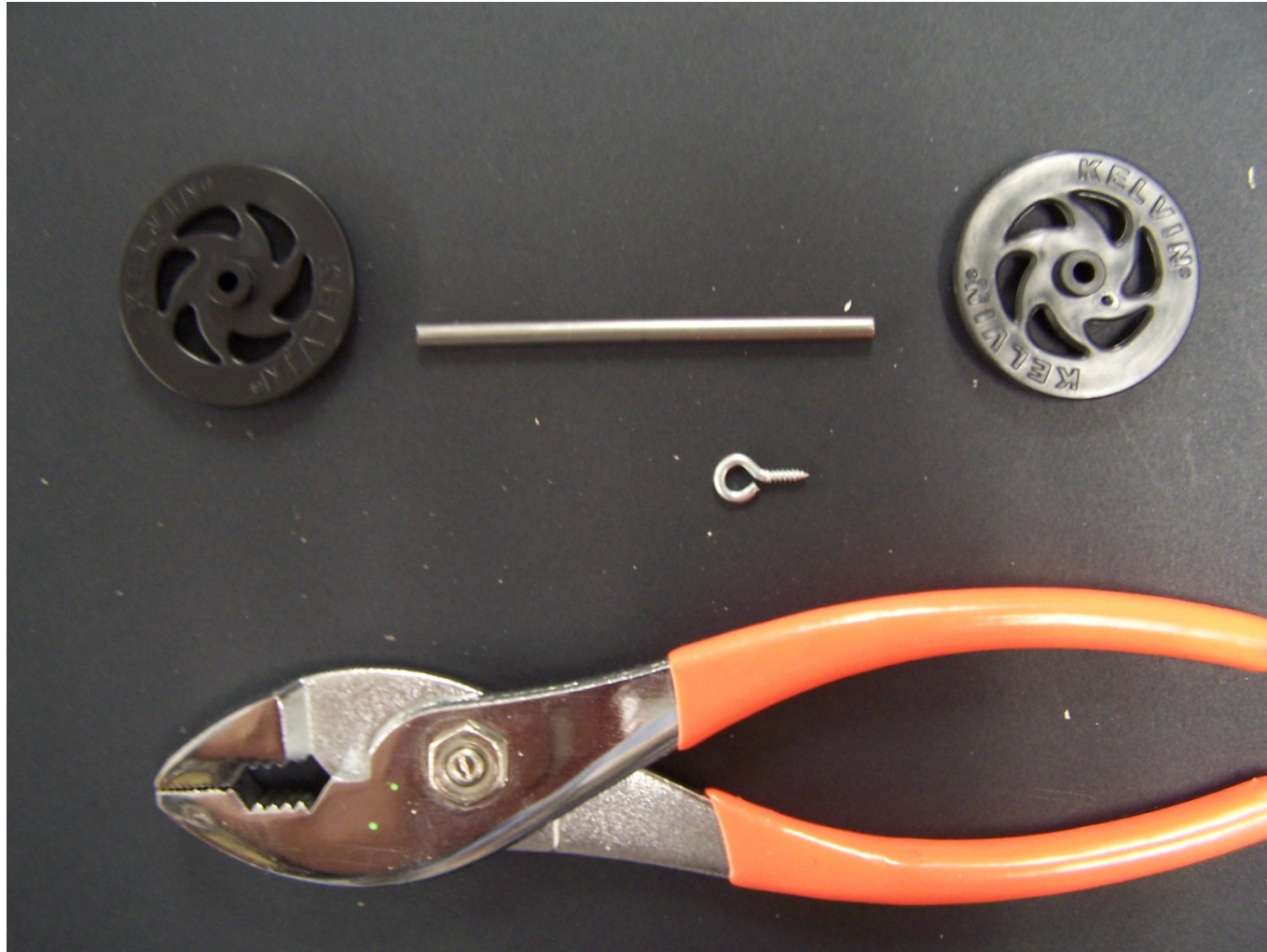


# Step 5 - Prep the wheels

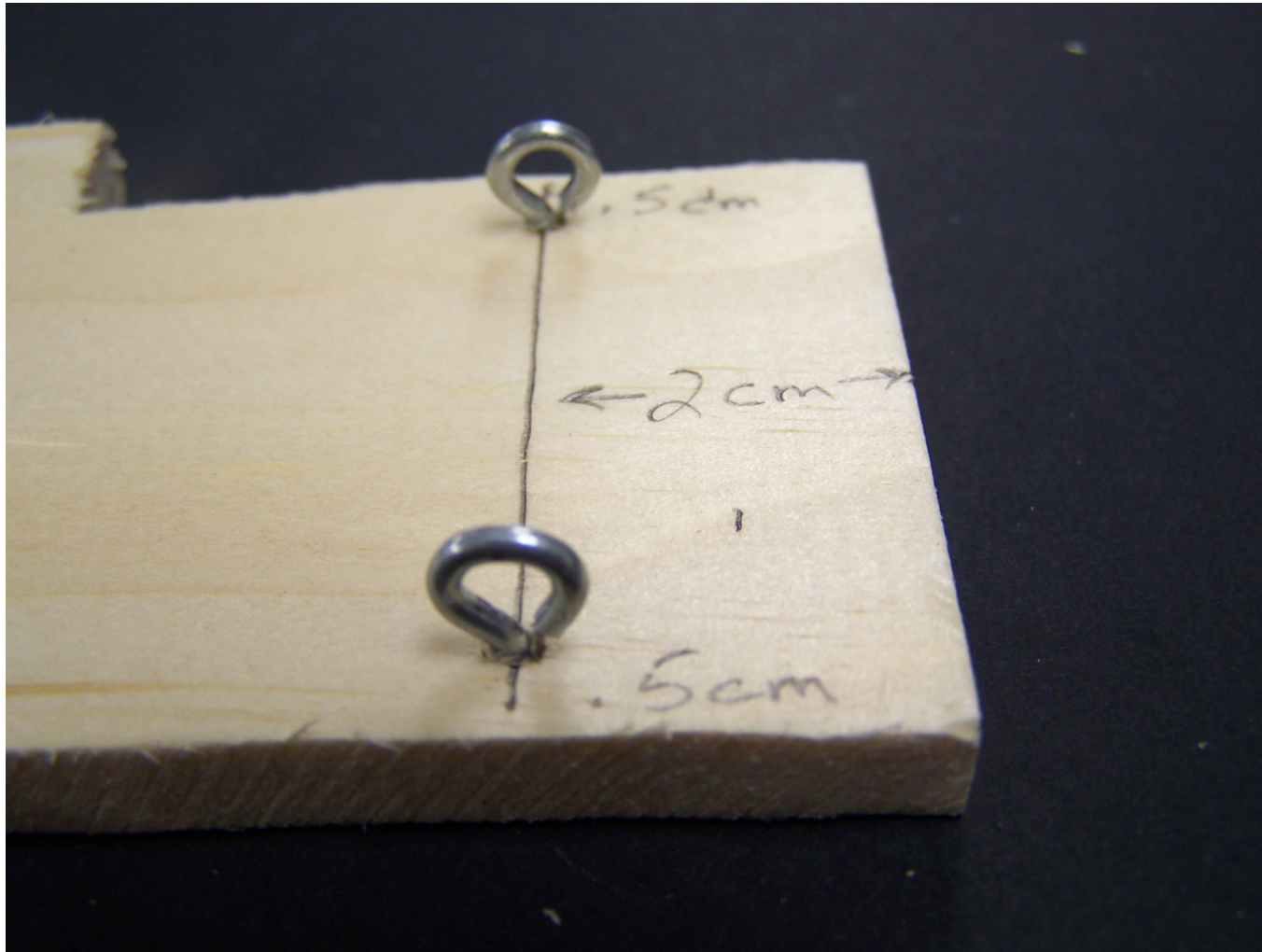


Snap the rear wheel insert into the CDs

Step 6 – Use pliers to slightly open the small eyelets to accept the front axel (small rod).



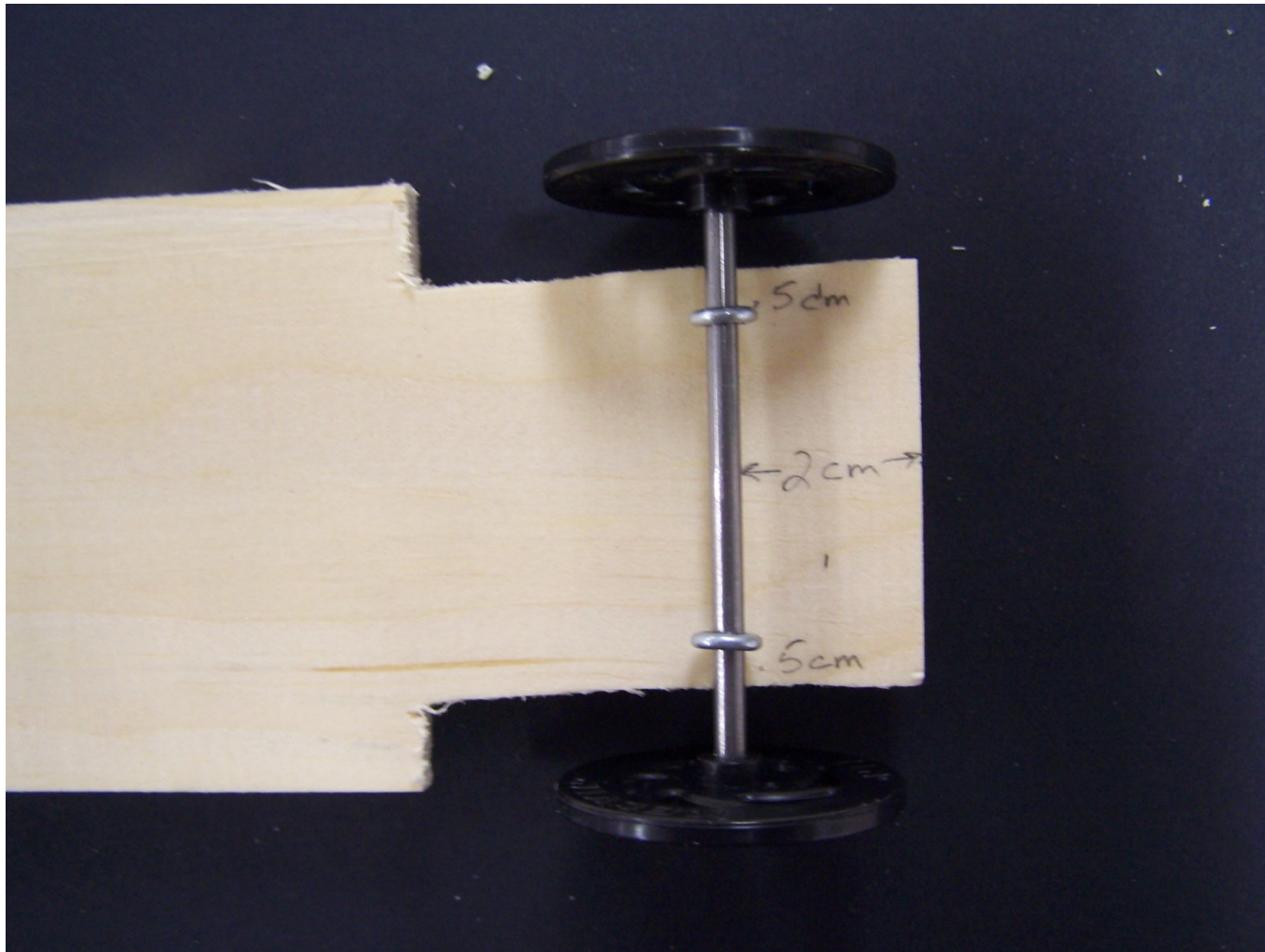
Step 7 – Mark the bottom front of the board and screw in the two small eyelets.



Mark the location of the small eyelets . 5cm from the cut edge and 2 cm from the front edge.



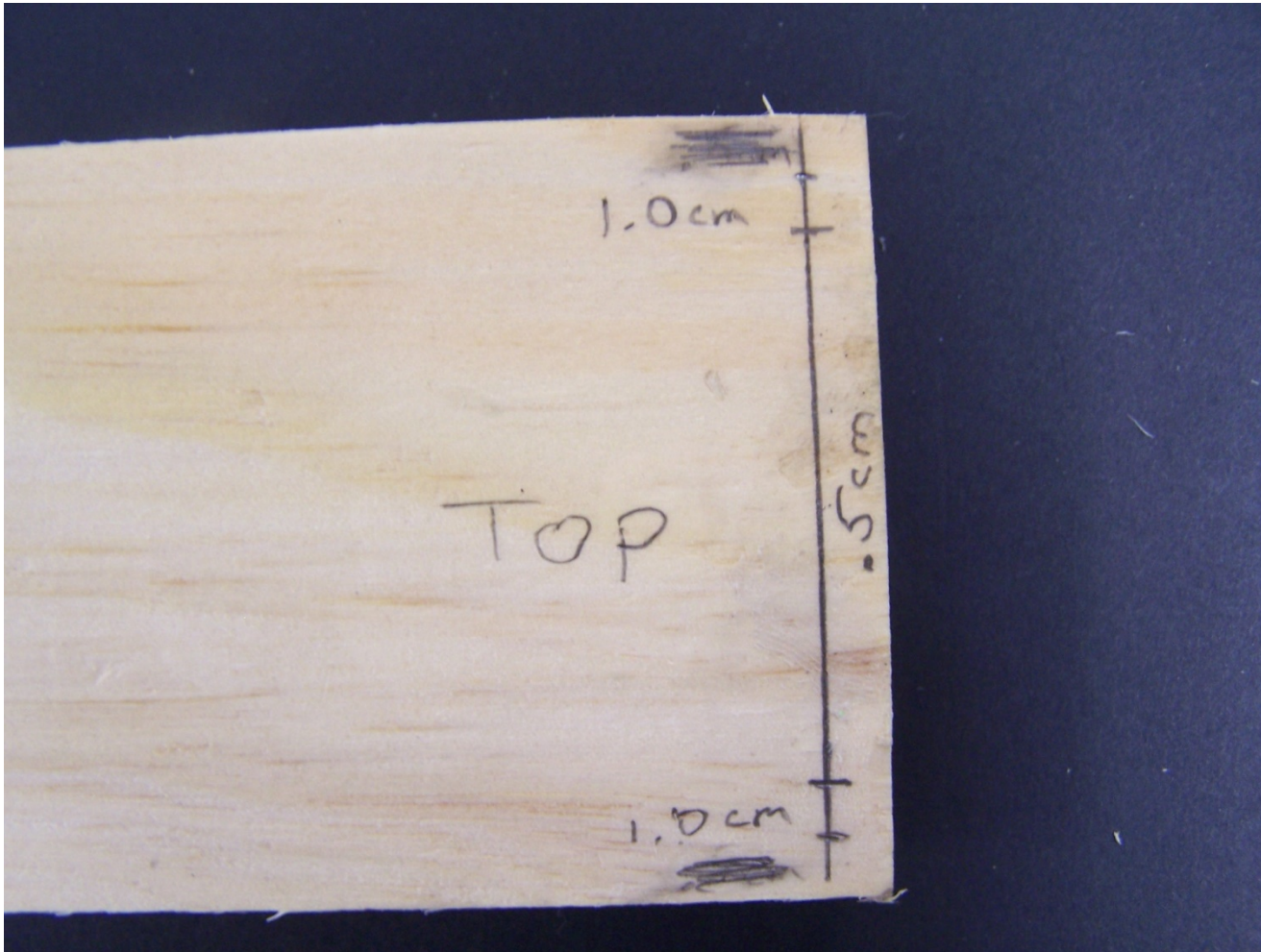
Step 8 – Insert the small rod (front axel) and attach the small wheels.



# Step 9 – Glue scrap wood to the bottom rear of the board.



Step 10 - Mark the top rear of the board to place the large eyelets for the rear axel.



Place the mark  
1 cm from the  
side and .5 cm  
from the rear.

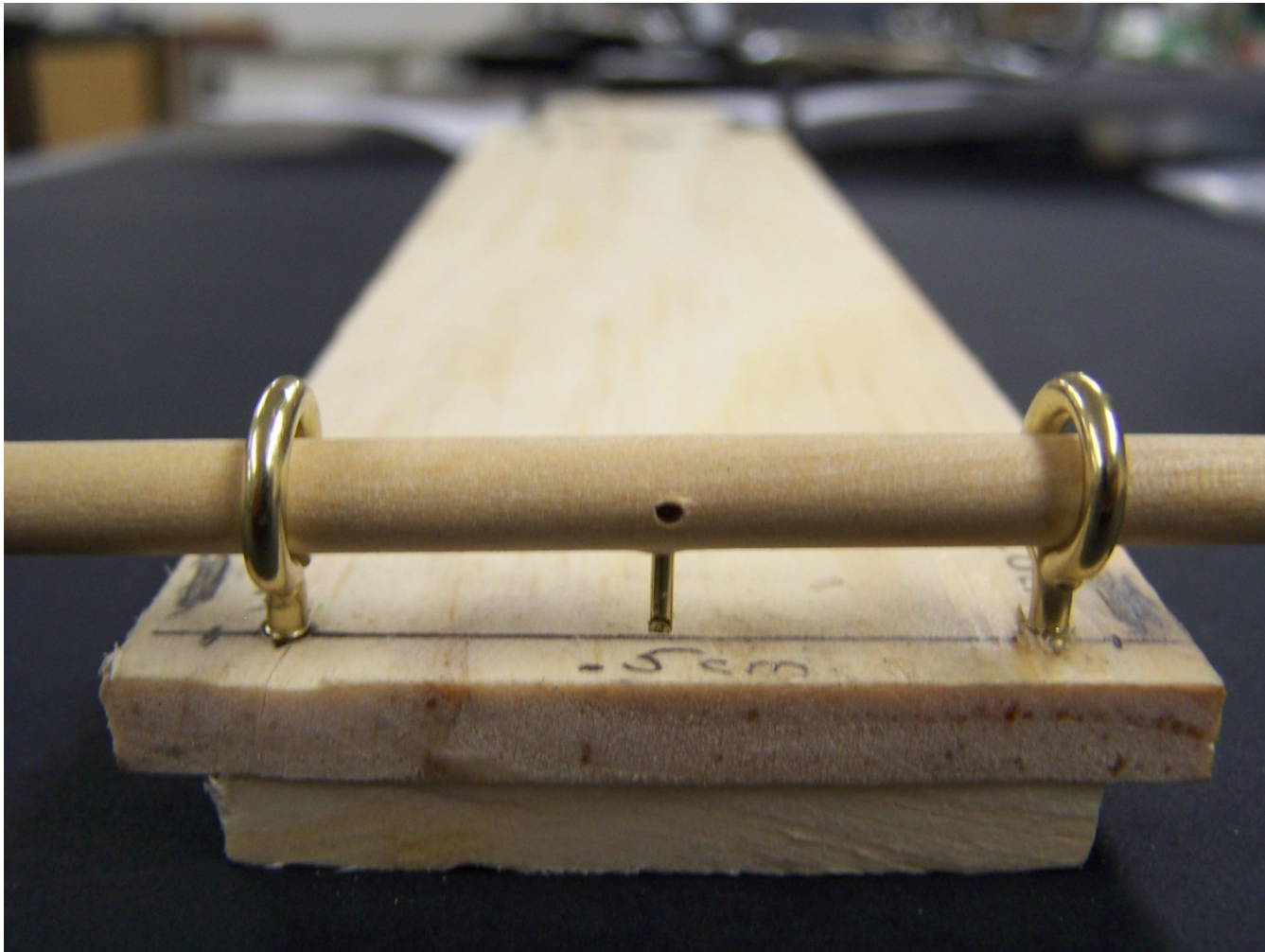
Step 11 - Insert the large eyelets on the top rear of the board.



Step 12- Insert nail into rear axel and snip  $\frac{1}{2}$  of nail with wire cutters.

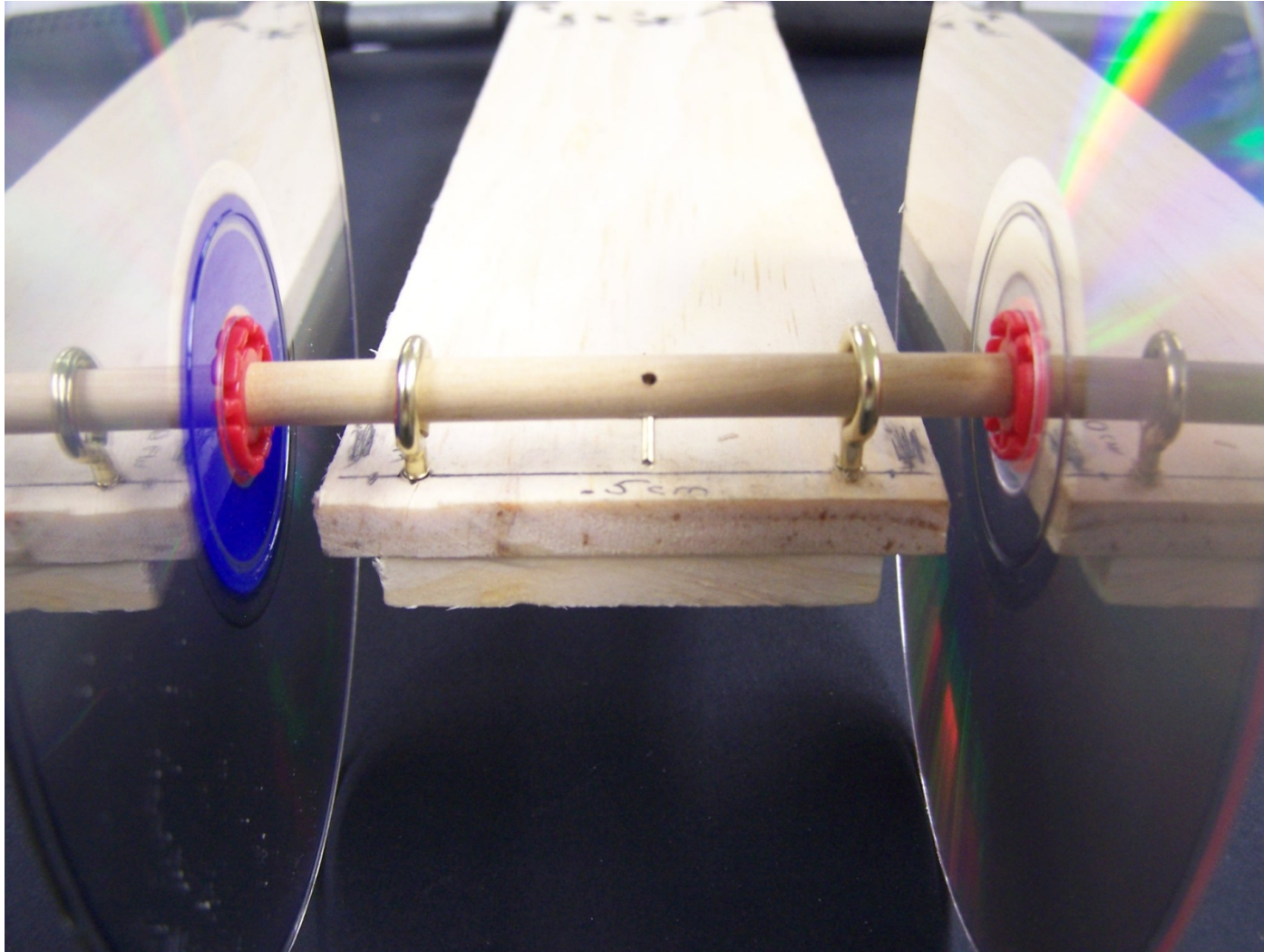


# Step 13 – Insert the wooden rod (rear axel) into the two large rear eyelets.

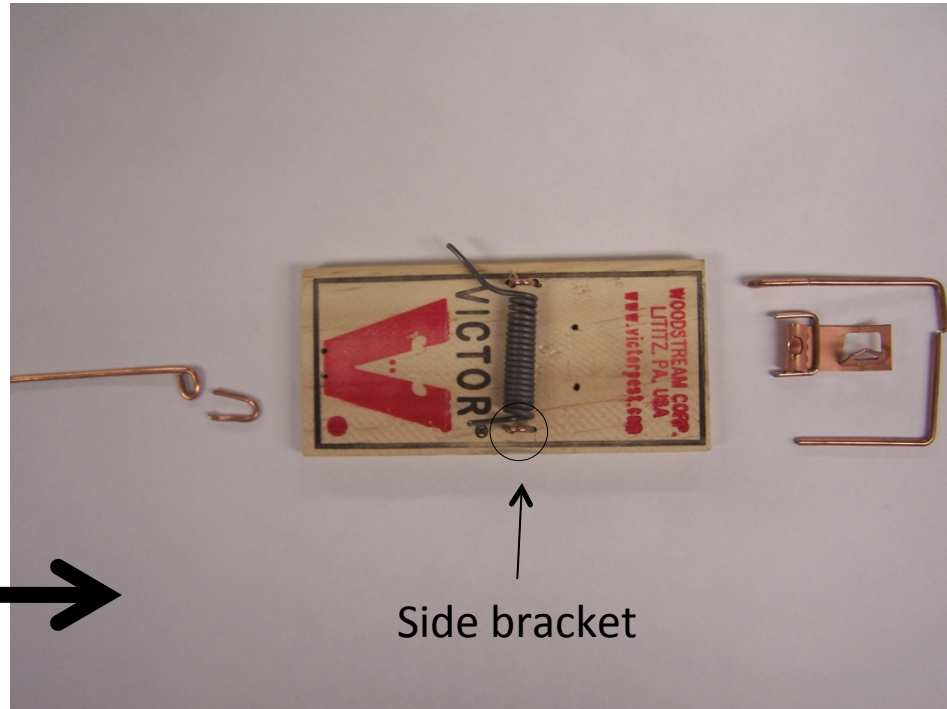


Twist one eyelet 90 degrees and insert the wooden rod. Slide the wooden rod all the way in. Twist the eyelet back to its original position and slide the wooden rod into the other eyelet.

# Step 14 - Attach CD wheels to rear axel



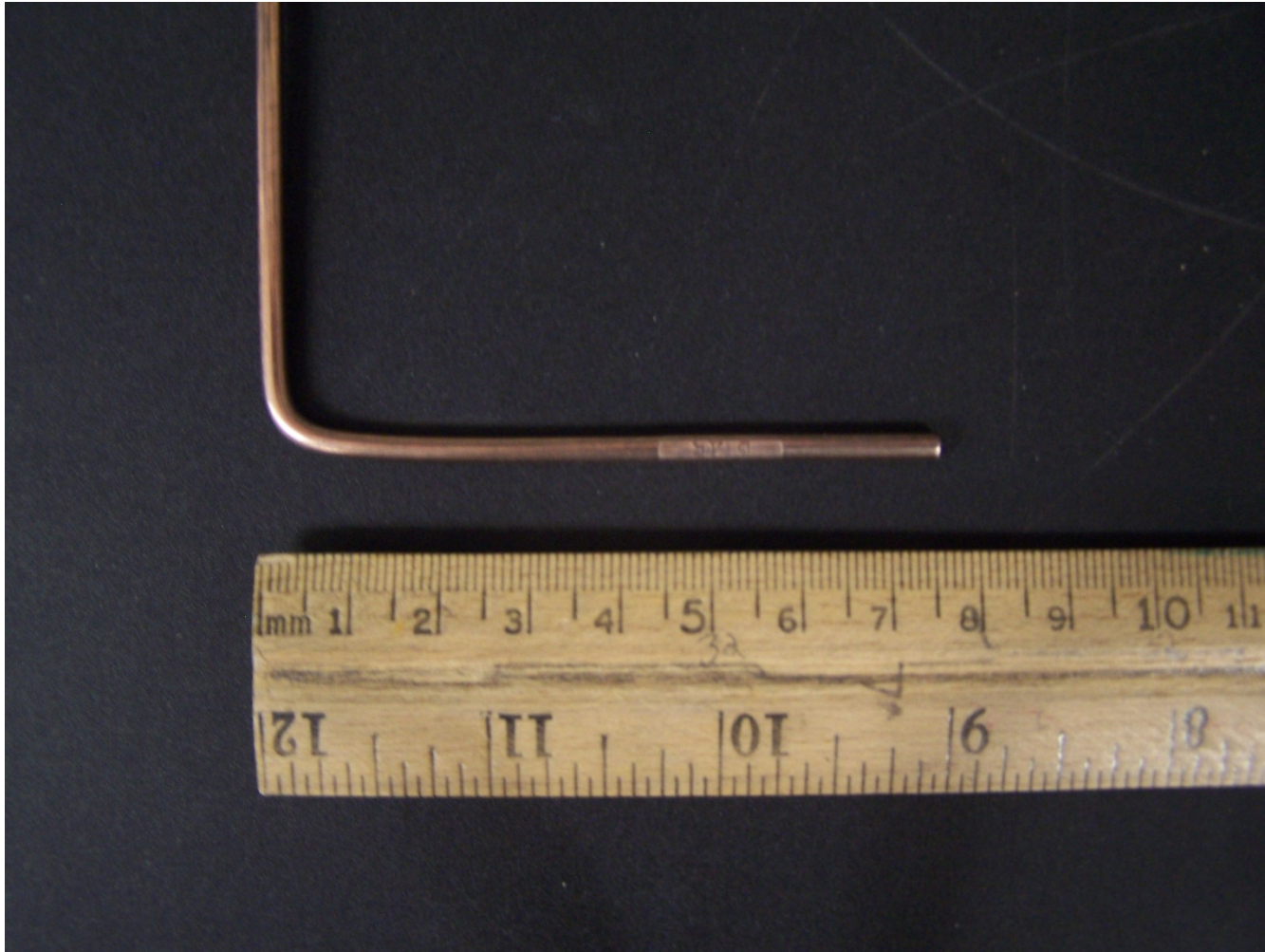
# Step 15 - Remove excess hardware from the mouse trap.



Leave the spring and two side brackets



# Step 16 – Bend the long metal rod



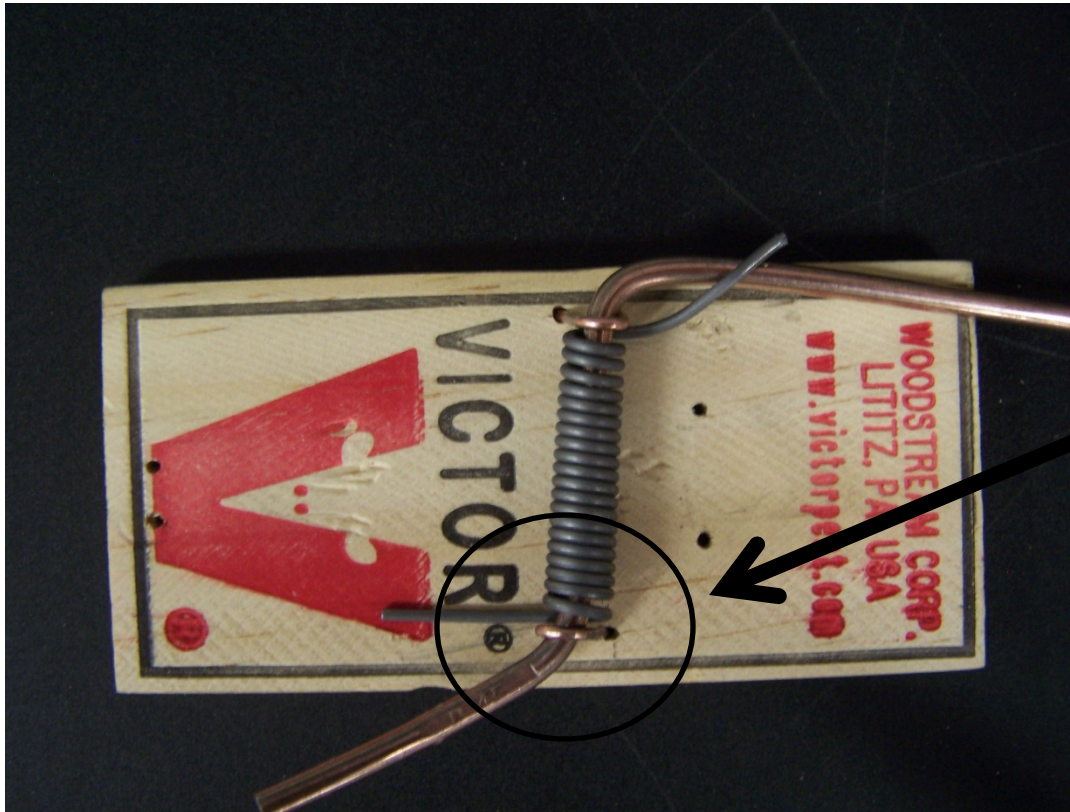
# Step 17 – Insert the long metal rod into the spring.



Make sure to remove any excess metal from inside the spring.

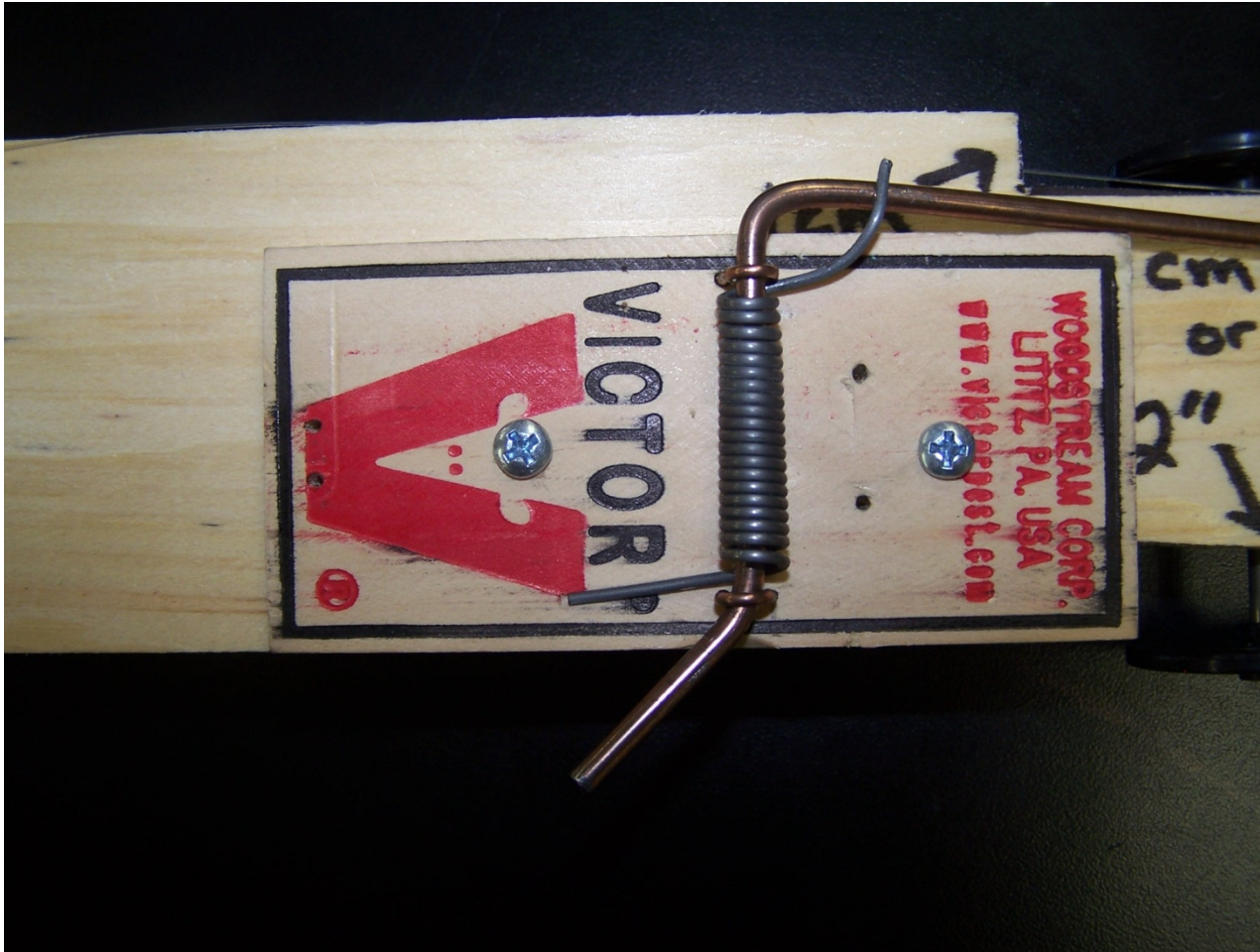
Fold the tip of the spring over the long metal rod.

# Step 18 – Lock the long metal rod in place



Bend the other end of the rod to secure the rod from sliding out.

Step 19 - Attach the mouse trap to the front of the wooden board with glue and wood screws.

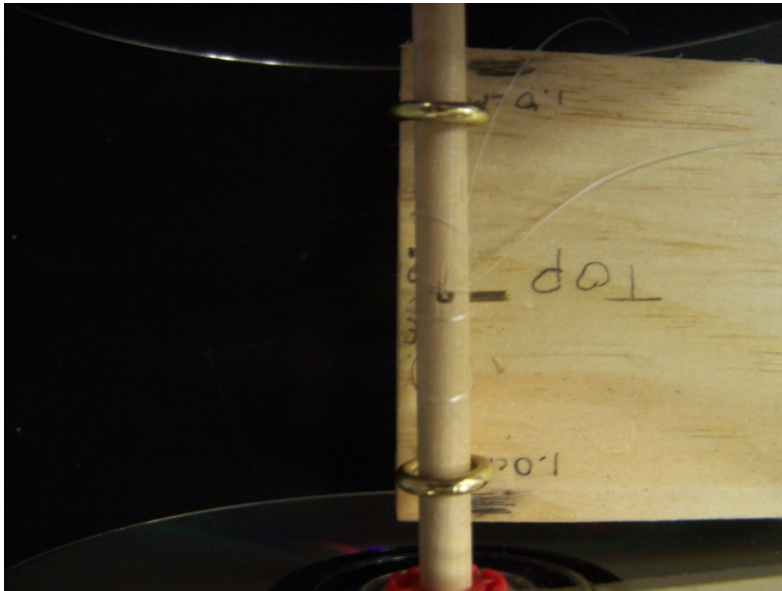


Make sure the rod rest in front of the car.

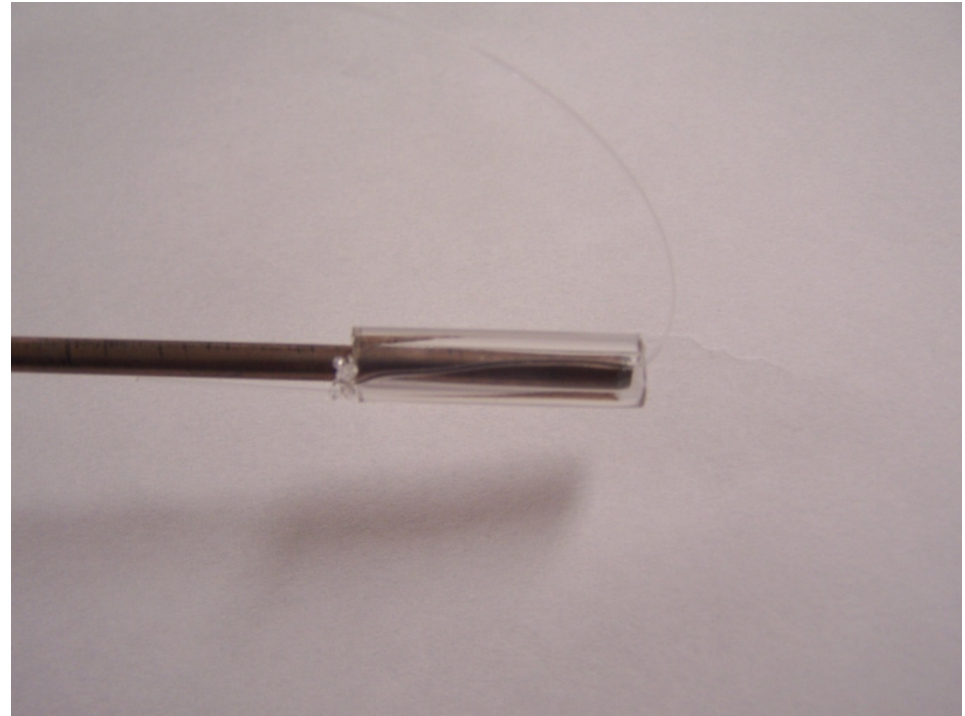
**Step 20 - Cut the balloons and stretch them over the rear wheel CDs to provide better traction.**



**Step 21** - Tie the fishing line to the rear axle with the clipped nail and the tip of the long metal rod.



Tie at rear axle.



Use the clear plastic tip to assist the knot.

Step 22 - Wind the rear axle pulling the long metal rod towards the rear to store potential energy.

