

Build Instructions:

Base:

1. The underlayment was purchased as per size requirements.
2. The underlayment was reinforced by the fur strips cut to the outside dimensions.



3. The fur strips and the underlayment were connected by pre drilling holes, gluing and then drilling in screws.
4. The center of the board was also reinforced using fur strips. The middle of the width was measured and then the length of the needed fur strip was measured where the fur strip was placed. Tape was placed over it to hold it in place to drill on the other side.





5. Eight measured fur strips were used to reinforce the remaining open spaces by placing four on each side equally apart, and then taped, glued and drilled in the before mentioned way.
6. The top was sprayed with gloss white.
7. The 'W' was marked off as per the drawings and sprayed red.
8. A ½" strip was masked off as per the drawings and sprayed black.

Ramps



The ramps were constructed from a single two-by-four stud. The wood was cut into six 15" pieces and each ramp was made from three pieces that are glued together. Each of the four ends were cut at an angle to from the top corner to the diagonally opposite corner to create a 4" wide base at the top.

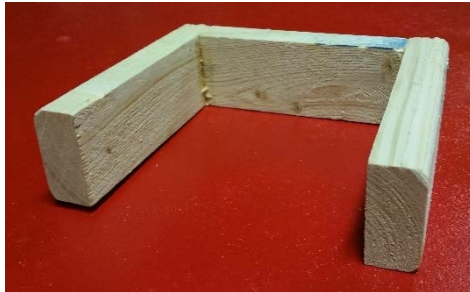
We then spray painted the ramp red to match the color of the board. Once the spray paint was dry the ramps were secured to the underlayment board using glue. A stripe of the black spray paint was added to the middle of it for the robot to follow.

Tunnel



The tunnel was made from a 5 gallon plastic pail. The top was removed and then a length of 11" was measured and marked. The bottom was then cut at this mark. The open bucket was then cut perpendicularly so that it could be opened and placed over the ramp to form a tunnel.

Corral



The corral was made from two 4 ½" and one 4" offcuts from the 1"x2" furr strip. The pieces were glued and screwed to form and a square horseshoe shape.

The coral was painted red.

The Ping Pong ball will be placed on a 1/2 inch fender washer to keep it in place, but small enough that the vehicle should be able to drive over it. The checkpoints are marked by spray a star or line stencil where the vehicle must pass to receive points.