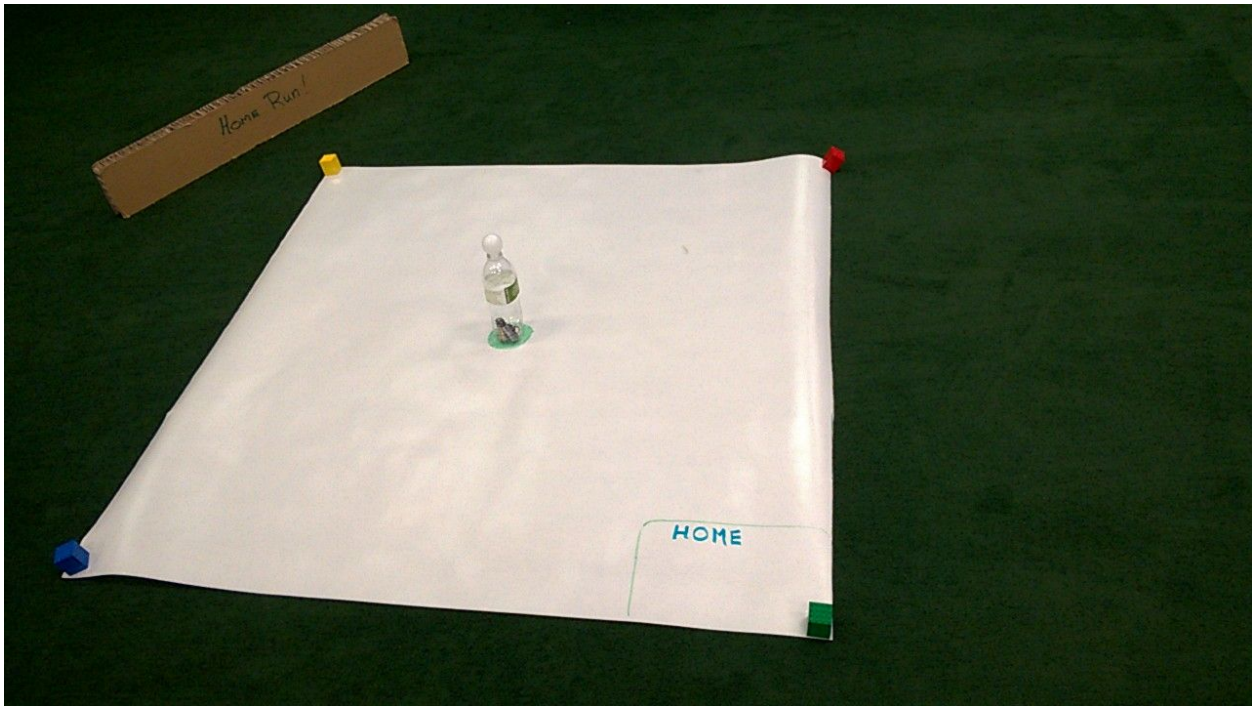
Robot Baseball Challenge

The robot must start in the home area. From there it will drive to a bottle with a ping pong ball on top. Using a regular pencil it will hit the ping pong ball and then “tag” each base (a stack of Legos) by pushing them off the mat.

If the robot is touched, the mat will be reset to the beginning position.

The mat is 4’ x 4’ made of white dry erase banner paper. The floor underneath will be dark. Bases are two lego 2 x 4 bricks stacked 3 high.

	Possible Points	Points Scored
Robot Hits Ball	5 points	
Bottle remains in circle and upright	5 points	
First Base Tagged	3 points	
Second Base Tagged	3 points	
Third Base Tagged	3 points	
Home Base Tagged	3 points	
Ball Hits Outfield Fence	5 points	
Ball goes over fence	5 points	
Reset required	-1 point	
Total Points (32 Possible)		



Here is the mat we made. We used dry erase bulletin board paper. The “bases” are made from 6 Lego 2 x 4 bricks. Color of the bases is random. Home Run fence is about 6 inches from the corner of the mat to allow robots to be able to line follow along the edge. A water bottle with a couple of AA batteries inside to add weight holds the ping pong ball for the robot to hit.

Other challenges available:

Don’t Fall off the Table- Robots use sensors to avoid falling off a table. The table will be white. The tables legs will be folded so that it is just a few inches above the ground.

Autonomous SumoBots-Details soon.

Clear the Table- Robots clear randomly placed plastic Solo cups from a 4’ x 4’ white mat. Time to clear will be recorded. Max of 60 seconds-number of cups left will be recorded.

Challenge day is Dec 1 at 1:00 at LabSpace. Bring your own mat if you like. You may bring a different challenge to exhibit if you like. There is no charge to enter. Email LabSpaceRobotics@gmail.com or call (573) 645-0800 with questions.