

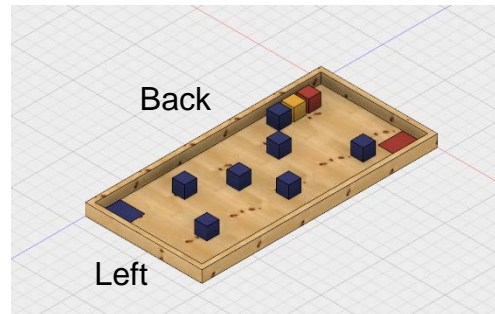
## New London County 4-H Fair

### Robotics Competition 2017

#### The Goal:

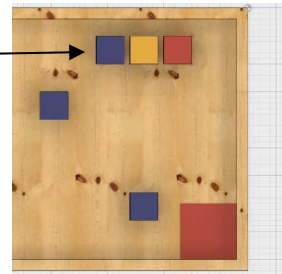
- Navigate your robot autonomously through a field of obstacles in the least time possible
- Avoid contact with all blocks with the exception of a single red block that may be repositioned for a time reduction bonus (see bottom figure)

#### The Playing Field:



- The playing field will be 45 inches wide and 93 inches long
- The perimeter of the field will be 3.5 inches tall (constructed of wooden 2 x 4s)
- Blocks will be a 5.0 inch cube constructed of plastic
  - The three blocks in the back-right-hand corner (blue, yellow, and red) of the figure are in a fixed position

3 fixed blocks →



- The remaining blue blocks on the field will be randomly distributed throughout the field, but the positions of the other blue blocks will still allow for clear access to the three blocks in the back-right-hand corner
  - The number of blue blocks will increase
- Robots begin on the blue pad (8x8 inches) in the back left of the playing field and finish on the red pad (8x8 inches) on the front right portion of the playing field

#### Scoring:

- Time will be measured from the time the robot begins motion from the starting position (blue pad) until the robot stops on the finish position (red pad)
- A 30 second time reduction can be generated by moving the red block shown below and pushing it against the wall of the playing field
- Three rounds of play are planned and modifications to play may be necessary depending on robot performance