Four Corner Competition
(rule version 20180430)

Objective: The robot will travel a rectangular path around a square course. The corners of the course will be marked with a small marker or cone. Before the robot makes its run, a mark or sticker will be placed on the center front of the robot and on the floor of the course. The objective is to minimize the distance between the two marks at the end of the run.

Robot: Competing robots must run autonomously but are <u>not</u> required to be self-contained. Robot size is limited to 18x18 inches. Maximum robot weight is 20 pounds.

Self-Contained Definition: Self-contained means that all computing power used to run the robot is carried on the robot platform.

Run Definition: A run starts when the robot is placed in the starting area of the arena, given a signal from the judge, and moves. If the robot fails to move, the competitor can remove the robot and try again at the end of the round. If the robot doesn't move when given this 2nd chance, its run is forfeited. The run ends whenever the robot completes the objectives, or malfunctions after moving, or strays into the perimeter of the square defined by the corner markers, or 4 minutes has elapsed. Each robot is allowed 1 run per contest round.

Round Definition: A round consists of a single run by each competing robot. The competition consists of 3 rounds.

Play: At the start of the competition, the robot may be placed anywhere outside of the perimeter of the square that is defined by the markers at the corners of the course. The robot may be turned to any angle when initially placed.

The robot must travel along the perimeter of the course and return to the spot where it started. After the run is completed the distance between the mark/sticker on the robot and the mark/sticker on the floor determine the success of the run. The robot may traverse the course either in a clock-wise or counter-clock-wise direction.

Beacons are <u>not</u> allowed. However, the competitor may use alignment aids, such as targets, before the run to set the robot's starting angle. All alignment aids not mounted on the robot must be removed before the robot moves. The competitor may also use the corner marks/cones as landmarks during the run. **Note:** There is no guarantee what will constitute a corner marker at the time of the contest.

Imaging of the floor to find the location of the floor marker is not permitted.

Corner Markers

8 to 15 ft

Course Perimeter

8 to 15 ft

Four Corners Course
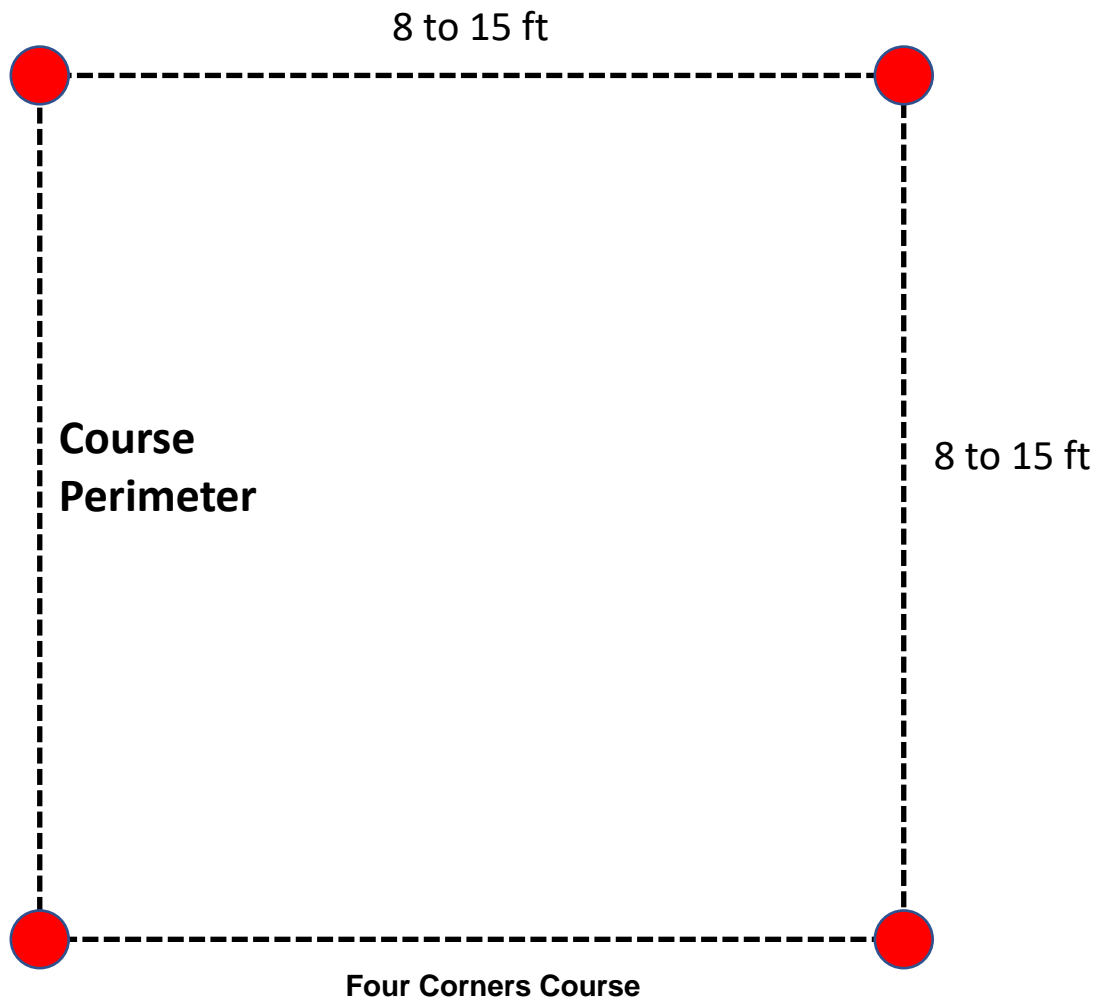
Course: The course consists of 4 markers or cones that are placed at the corners of a square that is between 8 and 15 feet on a side.

An area around the course of ~3 feet must be clear of obstacles.

Scoring: A robot's run score is the distance between the starting mark or sticker on the floor of the arena and the mark or sticker on the perimeter of the robot placed by the judge at the start of the run.

Since it is hard to determine accurately distances less than a ¼ inch, a robot that scores less than a ¼ inch will be considered to have a perfect score. Where multiple robots have perfect scores, they will share the first place in the competition. When there are multiple 1st place winners, no 2nd and 3rd places are given.

Judging: One or more judges will referee the contest. They will ensure the rules are followed and impose scoring penalties or remove a robot from competition if the robot is operating in an unsafe manner or not complying with the rules.

Safety: If the behavior of a robot is determined to be unsafe, the judge will withdraw the robot from the competition. The decisions of the judges are final.