Department of Electrical and Computer Engineering   November 12, 2016

Design Principles and Methods   Version 2.0
Course ECSE-211

Beta Demonstration Specifications

The beta demonstrations will take place on the afternoon of Friday, 18 November 2016 starting at around 1400. Each team will have a 10 minute slot to demonstrate the performance of their robot. The slots will be booked on a Doodle poll which will be published by Tuesday, 15 November. Each team should indicate as many slots as possible on the poll. It will be required that at least two team members are present at the beta demonstration.

The beta demonstration is intended to show that your design process for the robot is on time. It is intended to provide feedback for your team in order to allow you to make any adjustments necessary to your timeline, etc., so that the robot will be delivered with the required performance at the final demonstration on Tuesday, 29 November.

At the beta demonstration, the robot will be placed in corner X1 in a random orientation specified by the clients. Information concerning the role and the zones will be transmitted by wifi. For the beta demonstration, the robot will act in the builder role and will not have to avoid the red zone.

When instructed to start your robot, you will press the Enter button to start the program running and will then not touch the robot again until the end of the demonstration. Your robot will be expected to exhibit the following behaviors:

1. Accept an input dataset from the server via the wifi connection
2. Localize (the time limit will be waived for the beta demonstration although an attempt will be made to record the localization time to help you in your development process.
3. Locate a Styrofoam block
4. Demonstrate navigation to the green zone
5. Avoid obstacles on its way.
6. Place the block in the green zone and then terminate its run.

One point in the demonstration will be allocated for each of the above behaviors.

If you have not yet completed the obstacle avoidance functionality, you can request that the obstacles be removed from the course before you start.

Note that only one robot will be on the course at a time.

The demonstration will take place in the small laboratory on the 8 by 8 competition floor.

DAL/DG 12 November 2016