**2015 RoboCup Challenge –**

This folder contains all Arduino code used on an Arduino Mega for the core processing on board the robot itself. It contains a fairly elaborate state machine that controls the two drive motors, pickup actuators, and collection mechanism while reading in sensory data from ultrasound and IR sensors. This folder also includes a progress report, where overall design of the robot is discussed. Feel free to look through this to gain a better understanding of the robot itself.

**Scenario:** This year’s RoboCup search and rescue challenge takes place after a zombie apocalypse in which a ‘city’ has been overrun. There are a number of packages of much needed food distributed throughout the city, but the environment and the zombies are hostile, and your autonomous robot is the only means to gather this food for your band of survivors (potential zombie food), in a limited time before it goes off.

To add to the challenge, there are two groups simultaneously competing for the food in this city. Thus, you need to gather as much food as possible, but the group with the most food will survive (and win!).