

Milestone 1 Individual Report

Bluetooth

Initially assigned to assist with bluetooth, we had to download LejOS from the official website and set a path to it in our IDE. Then we had to download an additional bluetooth library as there were complaints of missing libraries.

Kicker

Assisted with creating our first prototype kicker which used several cogs connected together in order to enhance its power. We found that it was not feasible as the kicker became too big to fit onto the robot without violating our dimension restrictions. So we elected to use a kicker in similar design to that of robot Holly from 2010 using a single motor. This kicker was designed as a flipper that extended from the top of the robot to the bottom. We then re designed the kicker as we felt a heavier and wider kicker would help to give us a stronger hit. The design we choose was that of another winning robot number 11 in Garry's office.

Overall Robot Design

In essence our first complete robot design was for test purposes which we built it to familiarize ourselves with the functionality of the robot. In the end though we had to redesign the entire robot as it broke the height restriction.

It was rebuilt from scratch to be lower, more compact and more sturdy. We built a solid frame and an under covering for the robot, using the ideas from various previous winners in Garry's office.

After settling on using a single motor for our kicker for this milestone due to issues of complexity; whether we choose to have two for the next milestones is yet to be decided based on the results from further friendlies, tests and miletstone.

We also added an ultrasound sensor to the top of the robot. This helped us to stop before falling into the goal or hitting a wall without having to hard code a time for the first milestone.