Shaan Yadav, ay140
“I have adhered to the Duke Community Standard in completing this assignment”

Pre-Lab Deliverable (1)

Lab 5.0 went very well, and my lab partner and I were able to construct the CX-bot in such a way that it follows lines using the QTI sensors, stops at hash marks for a brief period and displays the correct LED colors. We learnt a lot about how to optimize the CX-Bot’s speed and QTI measuring refresh rate to make the CX-Bot best follow the lines.

For our task (orange squad), we would need to use RFID sensors to decipher data from the RFID cards next to our bot’s hash marks. Then code will need to be produced to determine which RFID card has a ‘D’ as the third to last letter - and that will signify the data that needs to be communicated to the sentry bot. The orientation of the RFID sensor may need to be optimized to ensure that RFID cards are scanned reliably.

An LCD will also display the data being communicated via XBee (also the final order of the CX-bots). Then an XBee will be used to send the information inferred from the RFID scanning to the sentry bot. The XBee will transmit data by initializing Serial2, by Serial2.begin(), and then using Serial2.print() to send the appropriate data to the sentry bot.