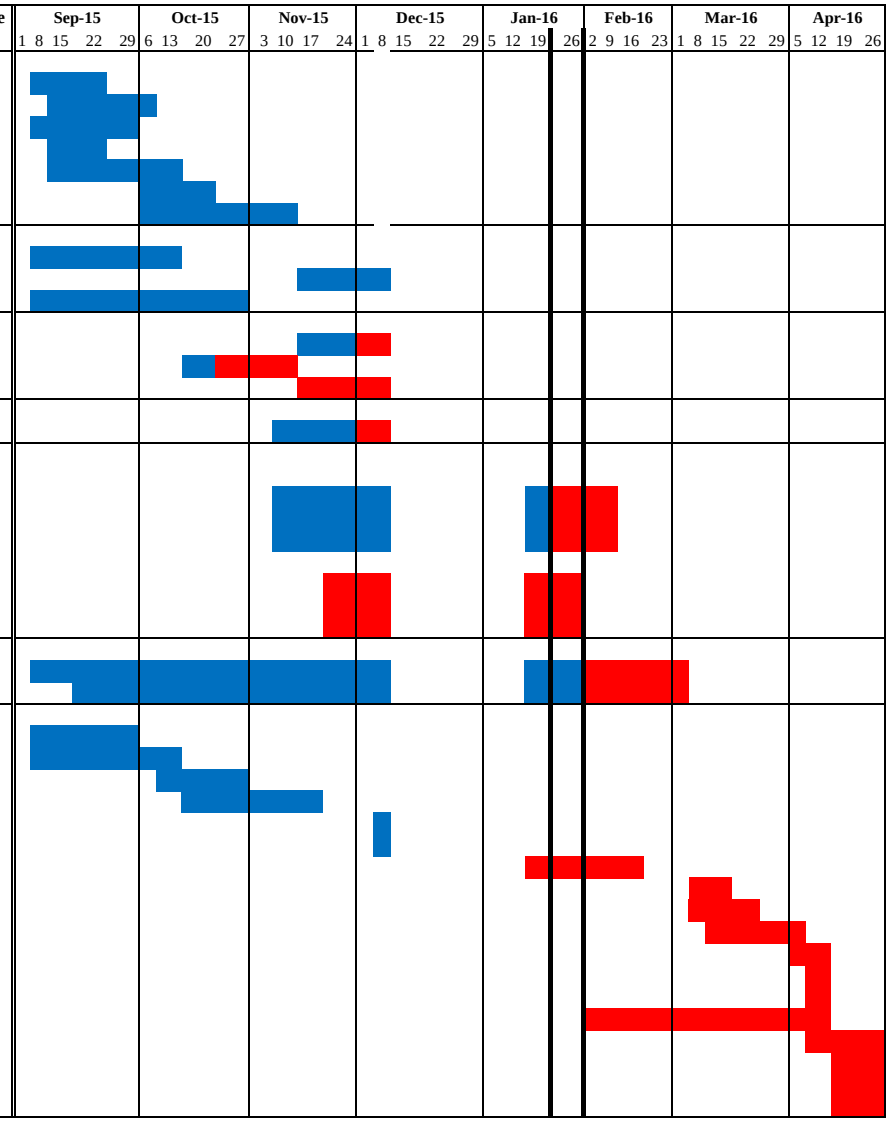
Task Name	Group Member	Finish by Date/Due
Individual Behavior		
Research Kilobot Sensors	Jared	September 28, 2015
Research Kilobot Communication Protocol	Jared	October 12, 2015
Research Q-bot Image Processing	Ryan/Greg	October 5, 2015
Research Q-bot Sensors	Ryan/Greg	September 28, 2015
Reseach Q-bot Communication Protocol	Ryan/Greg	October 19, 2015
Reseach E-puck Sensors	Brittany	October 26, 2015
Research E-puck Communication Protocol	Brittany	
Individual Communication		
Research/Test Kilobot - Kilobot	Jared	October 19, 2015
Research/Test E-puck - E-puck	Brittany	December 14, 2015
Research/Test Qbot - Qbot	Ryan/Greg	November 2, 2015
Integrated Communication		
Test Kilobot - E-puck	Jared/Brittany	December 14, 2015
Test Kilobot - Qbot	Jared/Ryan/Greg	November 16, 2015
Test E-puck - Qbot	Brittany/Ryan/Greg	December 14, 2015
Algorithm Design		
Design Linear Based Model	All	December 14, 2015
Integrated Behavior		
Formation Control Behavior		
Localization	All	January 25, 2016
Point Convergence	All	January 25, 2016
Leader Follower	All	January 25, 2016
Flocking Behavior		
Neighbor Repulsion	All	February 1, 2016
Enpoint Attraction	All	February 1, 2016
Heading	All	February 1, 2016
Testing		
Software Implementation	All	March 7, 2016
Hardware Implementation	All	March 7, 2016
Deliverables		
Project Proposal - Oral Presentation	All	October 1, 2015
Project Proposal - Document	All	October 15, 2015
Webpage Release	All	October 28, 2015
Fall Progress Presentation	All	November 19, 2015
Fall Performance Evaluation	All	November 19, 2015
Fall Performance Review	All	Decemeber 3, 2015
Spring Progress Presentation	All	Feburary 18, 2016
Student Expo Abstract	All	March 18, 2016
Progject Demostration	All	March 24, 2016
Final Presentation	All	April 7, 2016
Student Expo Poster Printing Deadline	All	April 11, 2016
Student Expo Poster Setup	All	April 12, 2016
Sudent Expo	All	April 14, 2016
Final Report (Draft)	All	April 14, 2016
Final Report	All	April 28, 2016
Final Web Page	All	April 28, 2016
Advisory Board Poster Printing Deadline	All	April 28, 2016
Advisory Board Poster Presentation	All	April 29, 2016



This week Jared worked on two different algorithms for the kilobots, line following and group separation. Line following is an important algorithm for the overall project, as it can be implemented in more advanced algorithms for flocking and formation. First an agent is selected as the leader, which is given either a predefined route or can receive heading information from an outside source. Then the gradient algorithm is deployed with the leader being the origin. Each agent is then made of aware of who is in front and behind them. The followers then begin to move towards the neighbor in front of them and if they are too far away then the rotate in place until in range. Group separation has each agent generate a random number for its ID. Agents are then divided into two categories depending on whether their ID is even or odd. The even then began to attract each other while avoiding the odds, while the odds do likewise. Eventually, the agents separate completely into the two groups. Brittany has continued work on Kilobot to E-puck communication. She has been working on sending a simple message from the E-pucks to the Kilobots. The timing has been causing an issue. It has been observed on the oscilloscope that the E-puck is sending the message correctly, but the message is not being seen by the Kilobots.During the first week back from break, Greg and Ryan troubleshot the Qbots' strange behavior. The construction paper and communication logic were not as they should have been. After the corrections, desired movement was again observed. Data from the rotary encoders were collected and graphed to show the movement of the Qbots on an x-y plane. The x-y positions of the Qbots were successfully stored in the MATLAB workspace for circular movement, but not for consensus or formation control.