High Level Robotic Cooperation

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Abstract
Robotic cooperation is an area of intense research in many of America’s leading universities; from mapping robots to quadrotors there are many opportunities for research. Through Bowdoin’s RoboCup team I was able to explore cooperation in soccer. There are four robots per team that compete autonomously. Empirically, we find that the biggest obstacle to scoring goals, and winning, is robots of the same team clustering around the ball. To combat this, I developed a system that inhibited more than one robot trying to get to the ball at any one time. Some other things I developed to accomplish this include a fast, reliable way of approaching the ball and a robust communication system between robots.

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