Mini-Proposal (due 10/09)

Casper Max

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Qualifications: EECS undergraduate with experience in mechatronics design through the UC Solar Car Team.

Brett Bussell

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Qualifications: Mechanical Engineering graduate student with experience in mechanical design, control theory, and programming for embedded systems

Nithin Raghavan

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Qualifications: Applied Mathematics and Computer Science undergraduate with experience in optimization, machine learning, probability and programming using ROS for drones for pathfinding in the Hybrid Systems Lab

Trevor Voth

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Qualifications: Mechanical engineering graduate student with industry experience in a mechatronics engineering role. Along with experience in leading a mechanical engineering team on CalSol, the solar car team at UC Berkeley.

Haochen Gao

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Qualifications: Electrical Engineering and Computer Science undergraduate student. Experience in full stack web development and OpenCV based computer vision.

Proposal: The overall concept is an extension of the robot soccer project idea. We will start with a single overhead camera that tracks two robots. The idea is to use the camera to track and modify the motion of a soccer ball and robots, plan the trajectory of each robot, and send control commands to each robot. Once this is working well, we plan to increase the number of robots until we have a more realistic soccer experience. For additional goals, we hope to fit each robot with its own vision system and decentralize the planning algorithm.