System Design Project Individual Report

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Before the first milestone, I have been working on the vision component. I started by investigating last year solutions, studying general vision techniques, doing experiments in the main pitch. I managed to extend the team's vision system by adding a automatic threshold setting.

High point of my contribution

- Found all dependencies/requirements of some last year vision components. Install, run and evaluate those.

- Add a new functionality which makes it easy to observe each pixel in the video, select the object's region and set the thresholds.

The area I need improvement

- Find an easy way to pass the vision data to the rest of the system.

- Evaluate and improve the features recognition part of the vision.

- Do testing to be sure the system work at different light condition and different area on the pitch.

Expected point: 3

Another relevant information: My decision of extend the system as described above is due to the current system thresholds are set by manual tweaking of the values. Another area I have been working on is camera calibration but that has not come to any useful results.