

SDP Group 8: Milestone α Individual Report

Blake Hawkins

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Mentor: Katharina Heil

Members: Blake Hawkins, Lubomir Vikev, Borislav Ikonov, Yordan Stoyanov,
James Linehan, Lukas Dirzys, Iain Brown, Emanuel Martinov, Robaidh
Mackinnon, Aneesh Ghosh

1 Contribution Summary

It's been three weeks since our last performance review so identifying my most substantial contributions has been difficult. I would say the most useful things I've done this week include:

- Performed administrative tasks on trac, documented code using javadoc and noted many "TODO" regions in code; made useful refactorings
- Built an abstract Robot class with all the features of our milestone code
- Built a basic strategy system after mapping all the necessary states and actions for both robots in different scenarios.
- Built a system for recognising collision walls using the vertices accessible from Yordan's vision refactoring
- Did some testing regarding distortion in vision feed, and made some unit tests to check some vector maths methods
- Made enormous updates to the ball prediction system including recursive reflection recognition, coefficient of restitution, friction abstraction, goal line recognition, plus smoothing using Yordan's gaussian filtering system
- Fixed some code regression since the vision refactoring
- Implemented boundary recognition and made many tests on its behaviour

2 Self Assessment, Exceptional Contributions

I would award myself an 8/10 due to the substantial amount of time I put into SDP, most of which was useful in the assessed friendly.

I would award an 9/10 to Lubomir Vikev for going above and beyond the necessary work for any one member in SDP, spending all night until 6AM before the friendly building a new robot. James was unexpectedly busy with other course-works and without Lubo's last-minute contributions it would have been impossible to conduct a match with a missing robot.

I would award an 8/10 to Iain Brown for putting a huge amount of time into SDP, doing his best working on the ball prediction code and keeping in close contact with myself nearly every day. He has been one of highest contributing members of our team in the last couple weeks.

I would also award an 8/10 to Borislov Ikonov for spending all possible time (when our robots were available) testing and making sure we were ready for the matches. No amount of code production from myself can account for the practical calibration and testing done by him in the time approaching deadlines.