

For this milestone, I continued my testing role within the AI system. I added more tests within the 'Foresee' class, and added the ability to test the 'AIControl' class and the 'Eagle' class - I added a multitude of tests for the various methods within each class.

I also had some tests to fix within the 'Foresee' class and the 'Astar' class, after changes were made to core parts of the AI system: for example, the introduction of the new 'RobotState' type meant that tests had to be rectified to accommodate this.

I implemented two new sets of tests in order to validate the correctness of the new Dot() and Discriminant() functions within the Vector2 class, and created 'IntersectionUnitTests' to test the new class written to test obstacle avoidance. Through testing, I also managed to spot a few bugs in the AI code and added fixes for them - one instance being the new Discriminant() function within the Vector2 class, where the function had been incorrectly implemented.

Highlights of my contribution:

- Helped identify a number of bugs and fixed them.
- This week, I feel I was more pro-active in my testing. When I had finished my work, I was always asking Richard if there was anything else I could test, and I even delved into his own branch on GitHub to test functions he had just written but had not yet committed to the main branch.

Things to improve upon for the next milestone:

- In testing, I feel I have garnered a good understanding of how the AI system operates. In the future, I would enjoy the challenge of maybe contributing to the AI system itself in some form (if I see it fit to do so), on top of my current testing role.

I believe I have earned the score of **3** for this milestone. I feel I contributed at a steady rate throughout the lead-up to the milestone, and have always been happy to do as much work as was required.