Members: George, Danny, Calum, Ian

Team Minutes

Week 1: Made plans for how to approach project

Goals: Two guys to write out state machine, one guy to do pathfinding and another to implement. Report and presentation writing to be started when we are further along.

Completed: We had a discussion about our general plans for the tank, search as what kind of pathfinding algorithm we want (A-Star) and what sort of jobs each of us would be best acquitted to. We also made a start on some of the documents we would need to have, search as a State Machine and a Test document, so that we can back up why we think A-Star would be the most appropriate pathfinder method for our tank.

Main Goals for next week: Finish State Machine. Start implementing code. Start testing.

Week 2: Set up GitHub

Goals: Create a GitHub project and upload code and documents on to it. This will allow easier access for all of these resources between the group to do work in our own time instead of just when we meet up. This will be very helpful over the three week holidays in case any of us ends up going away during that time.

Completed: GitHub project created with all the relevant files uploaded and organised on it. There was some trouble with trying to invite the other members of the group as contributors but we will work on that over the next week before we meet up again. We also managed to finish State Machines for both the tank and the turret.

Main goals for next week: Try to fix the invite problem before we meet up again. Now we have completed State Machines’ we can begin to implement code, which we’ll start with the turret.

Week 3: Begin Implementation

Goals: Get some detection and firing AI code implemented for the turret. Update State Machines if necessary for any changes that we feel we should make along the way.

Completed: We have the turret able to shoot at the player tank when it falls within its detection range, there are a few bugs such as the turret continuing to shoot blindly at nothing once the player falling off the detection range. We also had a problem with the angle in which it would fire after detection the target, making it very inaccurate. We’ve managed to resolve these to a certain point but there is still some work to do to make the turret more accurate. With this implementation we did have to make some adjustments to the state machine with how it would switch between firing at the base to firing at the enemy tank, making sure that while switching between firing at the two the tank would go back into its detection state after taking fire to find the position of the enemy tank. Otherwise our tank would just get destroyed quickly if it’s focus remained on firing at the base while the enemy tank was attacking. We have also managed to get a completed Test Plan for the pathfinding meaning that next week we can begin to implement these algorithms for the movement of the tank.

Main goals for next week: Update State machine. Fix bugs. Start implementing A-star pathfinding for the tank.

Week 4: Continue implementation

Goals: Implement A-Star code for moving the tank

Completed:

Main goals for next week: