

Personal Report for Milestone 1

Paul-Jules Micolet s0939834

February 2, 2012

1 Introduction

For this Milestone, my main contributions were to the robot, documentation and team organisation. My main objectives were to try to have a good robot for milestone 1, make sure that we could rebuild it if needs be using documentation and manage the team to facilitate communication.

2 The Robot

I helped build the first version of the robot using a model given to us in the Lego Mindstorm set, building its frame and helping create and tweak the kicking mechanism. This first robot was, at its final stage, able to kick from one end of the pitch to another with enough force such that the pitch did not hinder the ball's path. Its movement on the other hand was quite unstable, I therefore helped find the cause of the problem. The reason our robot was not moving forward was due to our assumption of the motors moving at the same speed. This, of course, is never the case, one of the motors will always be faster than the other (or slower), we therefore needed to set the speed of the motors to the slowest's one.

Unfortunately this early model's dimensions exceeded those given to us and was quite fragile and unstable, we therefore decided to build a new robot. I participated in the construction of the second robot. For example I looked for a secure way of holding the brick without it taking much space which still requires to be finalised, I also assisted in the construction of the robot's frame and participated in the overall design decisions such as the use of two motors for the kicker to which we decided not to do.

3 Documentation

During the process of building our new robot I took the time to take photographs of both the old and new model. This will be used as instructions in case we were to rebuild an older version of our robot but also a good method of tracking our progress. I also took videos of our tests and uploaded them on our YouTube channel which I will update regularly as we progress through the project. These videos are a great source of documentation as they allowed us to compare our old robot's performances to the new one. As a celebration of our completion of Milestone 1, I created a montage video of our progress since the start of the project.

4 Team Organisation

I am the Team Manager of our team, this means that I have been taking care of setting up the meetings, suggesting the subjects to discuss and writing up the minutes of each meeting. I have also created our Facebook group, which is our second method of communication, the first one being our mailing list. I have tried to keep everyone informed, making sure that everyone can attend the meetings and that everyone is content with the decisions made. I was also the person to send the emails regarding questions we had for the teaching assistants and our mentor.

5 Goals

For the next milestone I will assist the AI team, helping build our robot's AI. Also, I will continue the documentation of the robot via videos and pictures and finally, try to improve on our communication as a team to avoid the problem of absent team members.