D3: Half-time evaluation

Linus Berglund[1], Johannes Edenholm[1], Hugo Frost[1], Hamza Kadrić[1], Erik Källberg[1], Johan Svennungsson[2], Rikard Teodorsson[2], Timmy Truong[1], Arvid Wiklund[1] och Karl Ängermark[1]

[1]*DAT255 - Software Engineering Project, högskoleingenjörsprogrammet i datateknik, Chalmers tekniska högskola*
[2]*DAT255 - Software Engineering Project, civilingenjörsprogrammet i informationsteknik, Chalmers tekniska högskola*

September 27, 2017

Coming into the third sprint we have had mixed results. For the first sprint we decided to have a somewhat slow start to the project. Partly because the amount of lectures was fairly immense and also since we were not clear on where to start. We believed that just getting familiar with the programming environment, setting up `git` and reading the documentation of the MOPED code should have been enough to get going. Although the entry curve for this project is quite steep, which means it takes some time to get comfortable with what we have to work with and to truly understand what needs to be done. The goal of the second sprint was to get a server up, create some simple plugins and run them via the server. To accomplish this we made two subteams, one server team and one plugins team.

However, it did not go as well as we expected. The server proved to be a great challenge and we were not able to complete our sprint backlog. Everyone working on the server used their own device and the communication within the team was rather poor. Ideally whenever someone had completed one step in completing the server task, that individual should have helped the others to reach that step and then move on to the next. Instead everyone on the server team got stuck on different parts and it was hard to backtrack to what the problems were since we were not on the same page. Apart from the server issue, the subteam responsible for the plugins carried out most of their assigned user stories and progressed by running simple plugins over the simulator, which was a good thing for the team.

Before entering the third sprint we used a different way of working towards our goal. The team primarily planned on creating a solution with the help of a server to communicate with the MOPED by using plugins. All members in the team later agreed on trying to solve the communication with the MOPED by translating the existing Python-file to Java. This allows us to read the CAN-bus with Java, meaning we can build the remaining project as a Java application. We have not entirely given up on the server solution, but put it on hold until we know if this approach is a solid solution. Since we had already used up almost all the previous sprint to complete the server task we felt it was time to move on with other essential parts of the project. We made two subteams, one working on the hardware side and one on the software side. The software team was split into two smaller teams with the goal to create a functioning Adaptive Cruise Controller. To make the work easier to grapple with we agreed on a common API to communicate between the hardware side and software side. Doing this means

that the software side can move on and create the implementations regardless if the hardware side succeeded in reading the CAN-bus. Hearing that most teams intends to use the camera to track the car in front we decided to put some research into image recognition to prepare for future sprints.

In addition to having more knowledge on the subject and a clearer picture of what the group needs to do to reach our vision, we also have done a lot of practical work. Our plan with the third sprint is to be able to run a simple Java program on the MOPED. This is needed so that we can manoeuvre the MOPED and communicate between hardware and software. The group knows and agrees that most of the coding will be completed during this sprint, though a lot of work still remains to be done.

We feel that we have gotten a better grasp on how to manage the sprint backlog and how to allocate user stories between members to soften the workload and not doing excessive work where it is not needed. Communication in the team has become better. Reasons for this might be that we have gotten to know each other better. Also that the size of the subteams have been reduced from 4-5 to 2-3 which makes it easier to work together in the subteams. It is always hard to work with new people and understanding your role in the group. Moving on we need to keep on improving as a team and helping each other out.