

sdmay18-03: Use of imaging devices and machine learning software to assist in autonomous ve

Week 1 Report

August 21 - September 7

Team Members

John — *Communications Lead*
 Souparni — *Meeting Facilitator*
 Fahmida — *Tester*
 Ashley — *Document Manager*
 Eric — *Webmaster*
 Bowen — *Hardware Maintainer*

Summary of Progress this Report

This week we got in touch with our client SmartAg, and discussed the requirements of our project. We understood that we had to develop a system that detects objects in real-time and had to send the coordinates of the object to a path-planning map developed by them.

We started experimenting with OpenCV's image recognition and depth perception tool and understood how to implement them.

We also collaborated together and set up toots like slack, trello and git to smoothen the experimentation and communication process. It was clear from our talks with SmartAg that we needed to split up the team into groups, half of us working on object detection and the other half working on depth perception.

We also took up individual roles (meeting facilitator, communication lead etc) to better manage our team.

Pending Issues

We have not heard back from Dr. Stoytchev about his thoughts on the project. The limited knowledge and experience with OpenCV and Python meant we spent a significant amount of time getting started and familiarizing ourselves with it. The project plan described by SmartAg is a little ambiguous.

Plans for Upcoming Reporting Period

Meet up with Dr. Stoytchev and iron out project plan and goals. Understand and experiment further with OpenCV and Python to get depth determination to work.

Meet up with SmartAg after meeting with Dr. Stoytchev to finalize project plan and goals.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
John	Met with team members and set up team roles. Set up communication and meeting with SmartAg. Looked into distance determination techniques in OpenCV. Met with team to discuss project plan and goals.	4	4
Souparni	Met with team member, assigned roles and distributed tasks. Met with SmartAg and	4	4

	discussed details about project. Experimented with OpenCV for object detection.		
Fahmida	Met with team members, went over specifications of project to better prepare for meeting with SmartAg. Met with SmartAg and understood project requirements. Collaborated with other team members to experiment with OpenCV and Python	4	4
Ashley	Met with team members, went over specifications of project to better prepare for meeting with SmartAg.	3	3
Eric	Met with team members, went over specifications of project to better prepare for meeting with SmartAg.	2	2
Bowen	Met with team members, went over specifications of project to better prepare for meeting with SmartAg.	2	2