

CPRE 491

Team 45

Project Title: Prototyping and Testing Embedded Machine Learning in an Application

Date: 10-03-2021

Weekly Report #2

Members: (With team roles)

- Amy Wieland: Project Manager
- Tyler Ingebrand: Project Manager & Machine Learning Manager
- Nathan Bruck: External Hardware/Arduino Manager
- Yi Ting Liew: Task Board Manager
- Sean McFadden: Machine Learning Manager
- Nayra Lujano: Research Manager
- Chris Hazelton: Security Manager

What we've accomplish in the past week / what we've been researching:

- Amy: Began creating project plan, specifically worked on outlining the risks and ways to mitigate potential risks for our project
- Tyler: Worked on creating design diagrams and psuedo code as an overview for the project
- Nathan: Research on how the Raspberry Pi interfaces with the robot dog.
- Yi Ting: Research on ML application and worked on the first project plan presentation
- Sean: Created project timeline for project plan and did more research on reinforcement learning.
- Nayra: Watched/worked through more content on the coursera course Dr. Rover suggested to us. I added tasks on the Issue Board on GitLab so it is easier to go through and see what tasks and duties are being completed. Worked on the task decomposition section for the project presentation.
- Chris: Learned more about machine learning and did the lightning talk

What we are planning to do in the coming week (short 1-2 sentences on what you will be doing):

- Amy: Finish up project plan document & presentation, start the design assignment
- Tyler: Gain access to a Linux machine and began setting up the environment for Python
- Nathan: Research the open source code provided for the movement of the robot. Further research machine learning.
- Yi Ting: Finish lightning talk audio and presentation slides, works on design document, and getting more understanding with ML as well as how the robot works in this project.
- Sean: Learn how to use OpenAI Gym through tutorials and example projects.
- Nayra: For the upcoming week I am planning to research the machine learning testing code so that I can start seeing how the testing will need to go. This will help ensure that the decisions we make now to put the robot in the learning environment will be as smooth as possible.
- Chris: Learn about OpenAI Gym and how the learning environment works

Issues or concerns we had in the previous week (will be brought up in a meeting for a full conversation):

- Amy: None
- Tyler: None
- Nathan: None
- Yi Ting: None
- Sean: None
- Nayra: None
- Chris: