Team 11

Project Title: Smart Water Shutoff

Date: 10/3/2021

Members:

-Alex Murray– Embedded programming

-Tyler Denning - Motors and Valves

-Natalia Almeida - System Sensors

-John King - Mobile application development

-Augusto Savaris - Machine learning

-Andrew Fehr - Electronic devices and circuits

- Kangcheng Xu - Motors and Valves

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

-Alex Murray– Created initial requirements for the communication between the RaspberryPI and the application server.

-Tyler Denning - Tested the microphone sensor on a main water shutoff

-Natalia Almeida - Tested the vibration sensor

-John King - Drafted software requirements and have begun detailing candidate classes for the mobile application.

-Augusto Savaris - Defined initial requirements for implementing the Machine Learning model on the RaspberryPi, recorded the lightning talk along with Kangcheng and Andrew

-Andrew Fehr - Gotten training and permission to use the machine shop in Coover.

-Kangcheng Xu - Tested the microphone sensor and vibration sensor.

What we're planning to do in the coming week

-Alex Murray– Create requirements for the application and server. And begin designing the server/app.

-Tyler Denning -

Natalia Almeida- Meet with professor to discuss the sensors progress

-John King - Continue software design process, with the goal of drafting a class diagram.

-Augusto Savaris - Examine the sensor data to determine some possible ML model types that will work well with our data, meeting with professor to discuss sensor testing progress.

-Andrew Fehr - Meet with professor to discuss the sensors progress

-Kangcheng Xu - Analyze the data given by the vibration sensor.

Issues we had in the previous week

-Alex Murray– Busy with the career fair

-Tyler Denning - Microphone unable to detect water flow

Natalia Almeida- After testing with microphone, It was unable detect water flow

-John King - Concern over the scope of the mobile application. Looks like it could be finished rather early.

-Augusto Savaris - No outstanding issues

-Andrew Fehr - Busy with career fair, no issues regarding the project

-Kangcheng Xu - The Microphone cannot work pretty well on detect the water flow. but the vibration sensor works.