KSU HMI Raspberry Pi Signage Project Roadmap

# Week 1 / Sprint 1 [3/25-3/29]

* Create GitHub account
* Connect Github account to KSUHMI group
* Research other Read.me files
* Create Read.me file for project
* Create business case for project in Readm.me
* Describe overall purpose and vision for project in Read.me
* Research Raspberry Pi hardware needed
* Review feasibility with company for reporting purposes / get approval for project
* Research other similar projects / repositories
* Research best OS for use on Raspberry Pi

# Week 2 / Sprint 2 [4/1 – 4/5]

* Purchase Raspberry Pi
* Purchase push button membrane
* Purchase Keyboard and mouse (not discovered until later)
* Assemble Raspberry Pi
  + Connect heat sinks
  + Assemble Case
  + Verify power connectivity (unable to do until OS installed)
* Create initial draft of code
  + Research which imports are needed
  + Research how to pull specific tabs
  + Research how to refresh a web browser page / tab
  + Research new page vs tab commands
  + Create framework for IF logic for different buttons to be pushed
* Research how to connect push button membrane
* Download Ubuntu
  + Download additional Winzip7 software in order to be able to expand the Ubuntu compressed image file
* Flash MicroSD card with OS
* Connect 1 x 4 push button membrane (moved to week 3)

Note: Unexpected delay occurred in that I was planning on using a wireless USB mouse / keyboard combination that I already had and was unable to get the keyboard working properly (likely a driver needed). It appears to be necessary to have a hardwire connected USB keyboard and mouse for initial setup. Unexpected issue arose this week in that we did not have the required MicroSD chip necessary in order to install this (assumed that it was included in the kit that was purchased). Had to add another step in this process as there is an additional piece of software that was necessary in order to Flash the MicroSD card. The file was a .xz that had to have a different software to expand the file type (it appears that this is a Ubuntu equivalent of a ZIP file.

# Week 3 / Sprint 3 [4/8 – 4/12]

* Install newly flashed MicroSD card
* Test initial power-up of Raspberry Pi
  + Connect Power
  + Connect Mouse / Keyboard
  + Connect to HDMI compatible monitor / TV
* Complete OS initial setup
  + Create account
  + Ensure internet connectivity
* Purchase Raspberry Pi “breadboard”
* Connect 1 x 4 push button membrane to “breadboard”
* Update Roadmap / tasks lists

Note: Unexpected delay occurred in this week that once the MicroSD chip was flashed and the OS was uploaded initially, it was discovered that the membrane push button that was acquired does not connect directly to the Raspberry Pi, but in face does need to be connected to a Raspberry Pi ‘breadboard”. Had to purchase a “breadboard” and have it quickly shipped in order to proceed with project.

# Week 4 [4/15-4/19]

Week 5 [4/22-4/26]