Emily Connearney

Engineering Notebook

**First Semester**

September 9-15

* Creation of the GitHub - initial commit
* Downloaded Unity Hub
* Started reading Unity documentation
* Learning basics/creating mini practice projects
* Brainstorming GUI with Keely

September 22-23

* I added the official Unity project
* Start initial design of GUI via paint based off Keely’s mockup
* Went over new layout/functionalities with Luke so I could begin creating new initial GUI design

September 28-29

* V1 docs due
* Created new scene design in Unity
* Was not working in the right spot (accidentally created multiple projects) in GitHub desktop had to meet with Luke to fix that

October 5-8

* Sprint 1 demo
* Worked on presentation for sprint 1 with the team
* Added new buttons to all the scenes

October 13-18

* Added functionality to back button to the main menu for all scenes
* Add IR customization buttons
* Added new Forks customization scene
* Fixed bugs on the Forks page

October 19-24

* Test doc due
* Created better naming system for right panel buttons for organization
* Attempting to instantiate cube game object to represent bot in scene
* Assessing issues – cube not appearing – turned out to be extremely small
* All custom scenes can now be accessed from all the buttons

October 26-27

* V2 docs due
* Snapped back button anchors to left corner
* Added x and y to the ultrasonic sensor menu
* Work on Sprint 2 presentation

October 28

* Sprint 2 presentation run through with team
* Present

November 5

* Worked on Bot rotation for IRSensorCustom with Luke
* Bot now slowly rotates in position for a 360 view
* Danny added Vivian’s models so we can start to use them in GUI

November 10

* Working on fixing bot rotation
* Danny wants to change Luke and I’s scenes into one scene

November 17-19

* Peer review
* Rotate was fixed by Danny can now rotate with click
* Danny made a new GUI that only has one scene and different menus and now trying to figure out how the new design works/what new code was added
* Working on instantiation scripts so that a user can add component models to the screen
* Brainstorming how to work with the new UI Components that have multiple functionalities now rather than switching scenes

November 24-29

* Touching up documents
* Merge main into Bot Custom branch
* Working on component instantiation scripts with Danny
* Created prefabs for all of the models needed
* Created script to instantiate clicked components in the scene
* Added this functionality to each of the 4 special UI component s
* Created script for components to follow mouse and anchor to a desired spot

December 1

* Prepared presentation with the team
* Final touchups/demo

**Second Semester**

January 16-22

* Work items are listed out
* Expectations for the first sprint are discussed
* Work items/expectations for future sprints briefly discussed
* Product Vision and Backlog are edited based off of last semesters progress

January 23-29

* Backlog and Product Vision turned in this week
* Work items discussed last week divided between team members
* Sprints more thoroughly planned based on difficulty level of assigned work items

January 30-February 5

* My work item assigned is creating a color selector for the bot customization scene
* Started research on how to best complete my work item
* Watched a few YouTube tutorial videos on different ways to create a color picker in Unity
* Selected an image to use for the color picker texture
* Created a test color picker scene to try a few different methods before attempting to implement into the customization gui
* Wrote the C# code component attached to color picker image
* Debugged so user cannot change color if the mouse is outside of the bounds of the selector image
* Created an image to reflect the preview color and an image to reflect that selected color when clicked

February 6-10

* Implemented my color picker method into the left panel of the customization gui
* Altered the overall layout/design of the left panel to better fit the new color picker
* Brainstorming how to implement this when bot components are able to be selected
* Sprint 1 demo presentation being created
* Presenting on the 10th

February 13-19

* Merge conflicts caused color picker to disappear
* Working out the conflicts

February 21-25

* Re-implemented the color picker
* Changed the left panel back to how I had it before it was lost
* Updated backlog for GitHub check
* Test plan V1 due

March 6-10

* Added the color picker to main
* Need to reconnect it to the component selector
* Worked on the SDS
* SDS and SRS Version 2 due
* Met and practiced for the sprint demo presentation
* Sprint 2 presentation Thursday
* Peer Evaluation completed

March 12-20

* Spring break / Not in the country

March 21-26

* Distributing tasks for last sprint
* Staring on final touches for bot customization

March 27-April 2

* Began last sprint
* Discussed the final touches on how to change the Bot Customization GUI to be more professional and presentable/made a detailed plan.

April 4-12

* Troubleshooted issues on why the images were appearing grainy and distorted
* Added new/higher quality images to the texture assets using different dimensions/quality settings to see if it affected the appearance
* Through further research I was able to figure out how to maintain the quality of the images when adding them to the tool bar menu
* Figured out how to configure the sprites to keep the images from compressing and how to enhance their quality

April 14-23

* Figured out how to take new pictures of the modeled components with different lighting/color in a 3D model viewer so they were not gray and dreary
* Later, once Danny updated some of the models to look even closer to how they look in real life (colors/details), I updated those images to match
* Discussed with my group whether there were any final details that they wanted me to focus on/help with before our approaching deadline
* Met with group to plan for the final presentation and create the outline
* Rehearsed our presentation
* Product presentation