FA24 ECE397 Albert Jiang

Oct 18:

* Tried setting up CCS for MSP432p401r
* The out of box demo GUI is missing, and the resource explorer is lacking key components

Oct 25:

* Fixed the CCS set up by downloading component from the official website
* Finished LED lab assignment
* Read through the previous code on buggie and ultrasonic sensor

Nov 1:

* Tried connecting ultrasonic sensor but no reading is available
* Probably because the interrupt isn’t set up correctly or connection is wrong

Nov 8:

* Implemented the basic reading from the ultrasonic sensor
* Delay is counted by checking timer flag instead of simple spin waiting
* Echo length is also calculated by receiving signal and timer interrupt
* Data is sent to computer console through UART
* Still needs to configure the clock signal to calculate the accurate distance

Nov 15

* Finished calibration of the ultrasonic sensor using ADALM2000. Records are kept under “US calibration” folder. The valid range is between 3cm to 200cm. The error is ± 5cm
* Set up the LF-C1t camera with an account and app on the phone. Still need to set up the connection under the school network. Also need to link the distance measurement with the video captured by camera
* Try powering up the servo with a 9V battery. Will try to use the previous code to control the buggy.

Nov 22

* Fixed the H-bridge connection in the previous buggy
* Implement basic servo control with H-bridge and system clock delay
* Tried using power bank to power up the microcontroller. It still needs a cable send back data.

Dec 6

* Researched on bluetooth connection. Needs additional modules to allow wireless connection.
* Moved to new computer with new set up
* Add LED blinking at the beginning to mark the start of measurement.
* Add timestamps with the distance measurement

Jan 29

* Added timestamps in minutes and seconds
* Added blinking to the beginning of data collection
* Ordered Bluetooth module HC-06

Feb 5

* Using CoolTerm to capture serial input into file
* Researched the way of using HC-06

Feb 12