Workshop II Agenda

Meeting Time: 6:30 pm, September 24th, 2020

Supplies Needed:

- 5x Arduino Megas
- 5x USB cables for Arduinos
- 5x Breadboards
- 5x Ultrasonic sensors
- 5x 220 Ω resistors
- 5x LEDs
- Male to male jumper wires

Recommended Supplies For Online Members:

- Get Elegoo Arduino Uno starter kit.
- Have access to computer with Arduino IDE
- (Optional: second Arduino for UART portion)

Software Needed:

- Arduino IDE

Helpers Needed:

- One or two helpers needed about an hour ahead of workshop to gather the supplies and setup.
- Helpers during the workshop

Provided Files:

- ProximitySensor.ino
- SerialRxTx.ino
- Schematic from Fritzing software

Lesson Plan:

- This workshop will have two parts, both with basic wiring.
- First part will be building a proximity sensor with an ultrasonic sensor and an LED which will blink with an increasing frequency as an object moves closer to the sensor. Second part will be a basic UART interfacing between two Arduinos, sending messages through the serial monitor.
- First we will look at the code and schematics for the proximity sensor, build that, and upload the code.

- Second we will wire the RX/TX connections for UART and ASCII string messages between them.