Conceptual

You will be hooking up an Infrared (IR) sensor and reading its input.

- ☐ Read tutorial on connecting a servo. Scroll down to the Sharp Proximity Sensor
- ☐ Make a sketch of how the IR sensor works. Describe in words how it works.

Basic Make

- ☐ Make a circuit for your IR sensor.
- ☐ Make a program to read your sensor.
    - Note: the example program uses the serial monitor to display values.

Advanced/Extended Make

- ☐ Make a graph of the signal read from the IR sensor as a function of distance to an object (like a book).
- ☐ Duplicate diagrams using Fritzing

Equipment

- ☐ Computer with access to Fritzing and Arduino
- ☐ Circuit components: Arduino and misc electronic parts
- ☐ IR sensor and associated cable

Objective

Physics Concepts

- ☐ Voltage divider
- ☐ Analog to Digital
    - Resolution and bits
- ☐ Digital to Analog
    - Resolution and bits

Experimental analysis

- ☐ Circuit design – voltage divider

Technology Concepts

- ☐ Schematic Symbols
- ☐ Programming Syntax – analog read