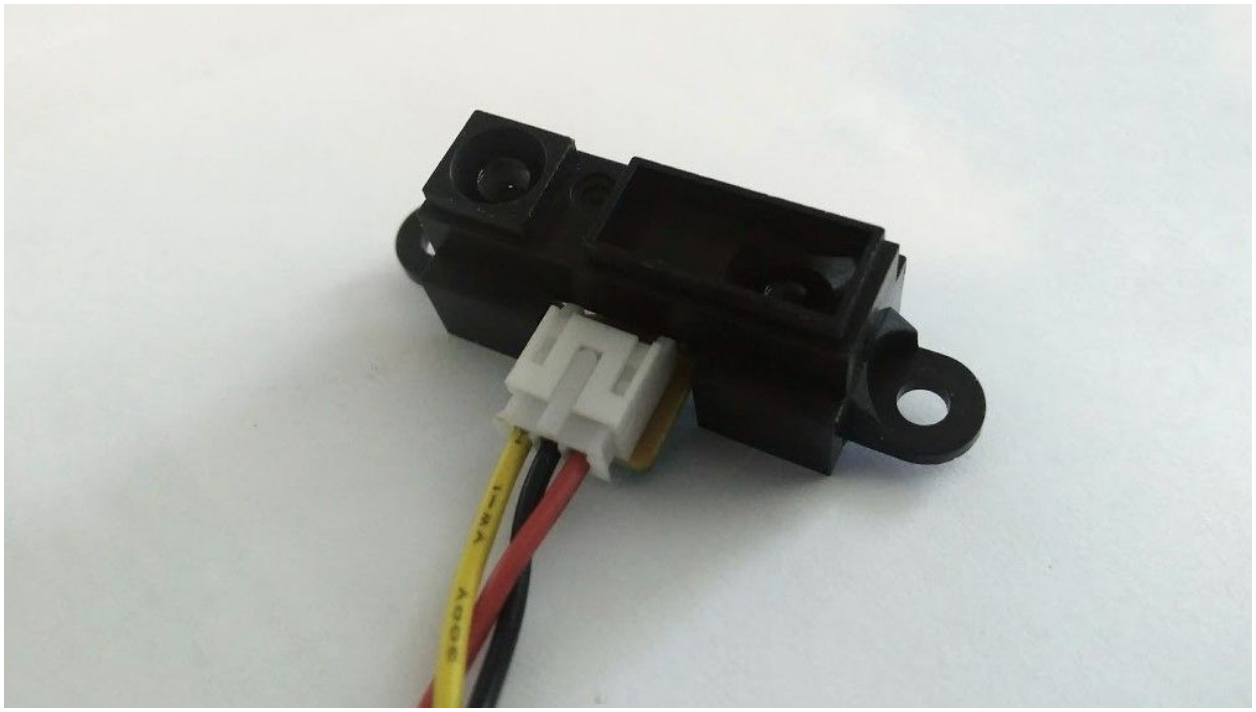
# Adding an IR Distance Sensor

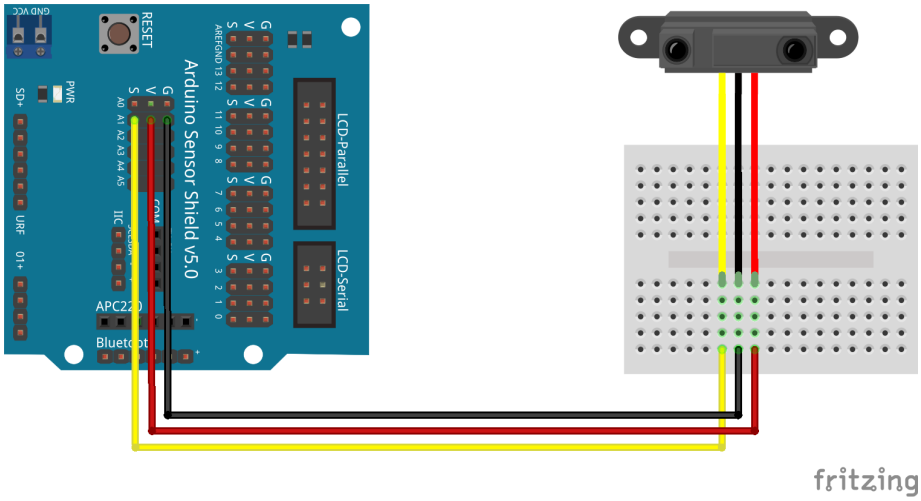


**Parts Required:**

1 - Assembled Make-A-Pede
1 - IR distance sensor (e.g. Sharp GP2Y0A41SK0F)
1 - IR distance sensor connector with header wires

## Wiring

Connect the sensor to your Make-A-Pede using the circuit shown below.  Usually the 5V wire will be red, the GND wire will be black, and the signal wire will be white/yellow.




## Mounting

Mount the sensor to the front of your Make-A-Pede. This can be done with double-sided foam tape.  A 3D printable sensor mount is also available on GitHub to help hold the sensor more securely: [Distance-Sensor-Mount.stl]

## Testing

Plug your Arduino into your computer.  Open the RangefinderDemo.ino program by opening the Arduino IDE and going to File → Examples → Make-A-Pede → RangefinderDemo. Load the program onto your Arduino.

Turn on the Make-A-Pede and it will begin to drive around and try to avoid obstacles.