Pinewood Race Circuit

Track 11-7/8″ total width
Lane tracks 1.5″ wide
3.75″ between lane edges
5/8″ on each side of lane for vehicles
2.5″ between max lane widths

5mm 940nm LEDs Infrared Emitter and IR Receiver

Receiving Angle: 40 degrees
Forward Voltage: 1.2-1.3V, Power: 0.15 W
Maximum power: 70 mw;
Maximum forward current: 30 ma;
Maximum reverse voltage: 5 v;
Maximum pulse current peak: 75 ma;

White: Emitter
Black: Receiver

https://www.adafruit.com/product/3500
https://cdn-learn.adafruit.com/assets/assets/000/049/778/original/adafruit_products_Adafruit_Trinket_M0.png

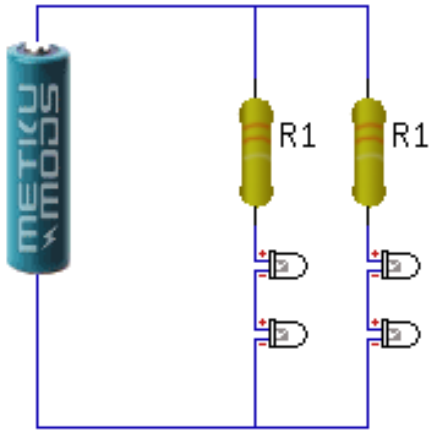
Digital #3/A3 as input
Digital #4/A4 as input

https://www.arduino.cc/en/Tutorial/Smoothing

5K between sensor and analog pin before ground

3.3V source from Trinket M0
4 LED’s; 1.2 V @ 20 mA = 47 ohm @ 1/8 W

http://ledcalc.com/



http://www.me.umn.edu/courses/me2011/arduino/technotes/irbeam/irbeam.html

http://startrobotics.blogspot.com/2013/05/how-to-use-ir-led-and-photodiode-with-arduino.html

https://www.electronicwings.com/arduino/ir-communication-using-arduino-uno