

CODE

```
int IRSensor = 2; // IR sensor connected to digital pin 2

int LED = 13;    // Onboard LED on pin 13


void setup() {

  pinMode(IRSensor, INPUT); // IR sensor pin as input
  pinMode(LED, OUTPUT);    // LED pin as output
  Serial.begin(9600);      // For serial monitor debugging
}


void loop() {

  int sensorValue = digitalRead(IRSensor); // Read IR sensor


  if (sensorValue == LOW) { // Object detected (most IR sensors give LOW)
    digitalWrite(LED, HIGH); // Turn ON LED
    Serial.println("Object Detected!");
  }

  else {          // No object
    digitalWrite(LED, LOW); // Turn OFF LED
    Serial.println("No Object");
  }


  delay(200); // Small delay for stability
}
```

