

PIR Sensor with LED – Arduino Code Explanation

Variable Declaration:

pirPin (Pin 2): Connected to the PIR sensor output.

ledPin (Pin 13): Connected to the LED.

setup() Function:

The setup() function runs once when the Arduino starts.

pirPin is set as INPUT to read motion data from the PIR sensor.

ledPin is set as OUTPUT to control the LED.

loop() Function:

The loop() function runs continuously.

digitalRead(pirPin) checks whether motion is detected.

HIGH means motion detected, LOW means no motion.

if-else Condition:

If motion is detected, the LED turns ON.

If no motion is detected, the LED turns OFF.

Working Principle:

The PIR sensor detects human movement.

When motion is detected, Arduino turns the LED ON.

When there is no motion, the LED remains OFF.