1. Write and execute a program to interface PIR Sensor with Arduino kit.

Q.1 Explain Arduinoin in brief.

Q.2 Explain PIR sensor in brief.

Q.3 Write a difference between sensors and actuators.

PIR CODE IN ARDUINO (MOTION DETECTOR)

CONNECTION: PIR PIN TO PIN 2 , 5V TO 5V , GND TO GND & LED L1 PIN TO PIN 13

CODE:

int ledPin = 13; // choose the pin for the LED

int inputPin = 2; // choose the input pin (for PIR sensor)

int pirState = LOW; // we start, assuming no motion detected

int val = 0; // variable for reading the pin status

void setup() {

pinMode(ledPin, OUTPUT); // declare LED as output

pinMode(inputPin, INPUT); // declare sensor as input

Serial.begin(9600);

}

void loop(){

val = digitalRead(inputPin); // read input value

if (val == HIGH) { // check if the input is HIGH

digitalWrite(ledPin, HIGH); // turn LED ON

if (pirState == LOW) {

// we have just turned on

Serial.println("Motion detected!");

// We only want to print on the output change, not state

pirState = HIGH;

}

} else {

digitalWrite(ledPin, LOW); // turn LED OFF

if (pirState == HIGH){

// we have just turned of

Serial.println("Motion ended!");

// We only want to print on the output change, not state

pirState = LOW;

}

}

}