ARDUINO

4. Reading Analog Values from POT/SENSORS:

a. Using Mapping:

CODE

```
int pot=A0;     // Intitialising an analog pin A0 as pot pin
int volt;       // Declaring a variable volt
int value;      // Declaring a variable value
void setup() {
  // put your setup code here, to run once:
  pinMode(pot,INPUT);     //  Declaring pot pin as Input
  Serial.begin(9600);     // Initailising Serial monitor

}

void loop() {
  // put your main code here, to run repeatedly:
  value=analogRead(pot);      // Storing value of analog pin A0 in value variable
  Serial.println(value);      // Printing value on serial port
  delay(1000);                // Delay
  volt=map(value,0,1023,0,5);     // Mapping value of 0 to 1023 to 0 volt to 5 volt
  Serial.println(volt);           // Printing value of volt on serial port
  delay(1000);                    //Delay
}
```

Note : Mapping will give you only integer value, so you would be unable to get real values of voltage.

b. Without using mapping:

CODE

```
int pot=A0;     // Intitialising an analog pin A0 as pot pin
float volt;        // Declaring a variable volt
float value;        // Declaring a variable value
void setup() {
  // put your setup code here, to run once:
  pinMode(pot,INPUT);     //  Declaring pot pin as Input
  Serial.begin(9600);      // Initailising Serial monitor
}

void loop() {
  // put your main code here, to run repeatedly:
  value=analogRead(pot);      // Storing value of analog pin A0 in value variable
  Serial.println(value);        // Printing value on serial port
  delay(1000);                  // Delay
  volt= (5.0/1023.0)*value;          // Converting pot value into volt
  Serial.println(volt);             // Printing value of volt on serial port
  delay(1000);                      //Delay
}
```