



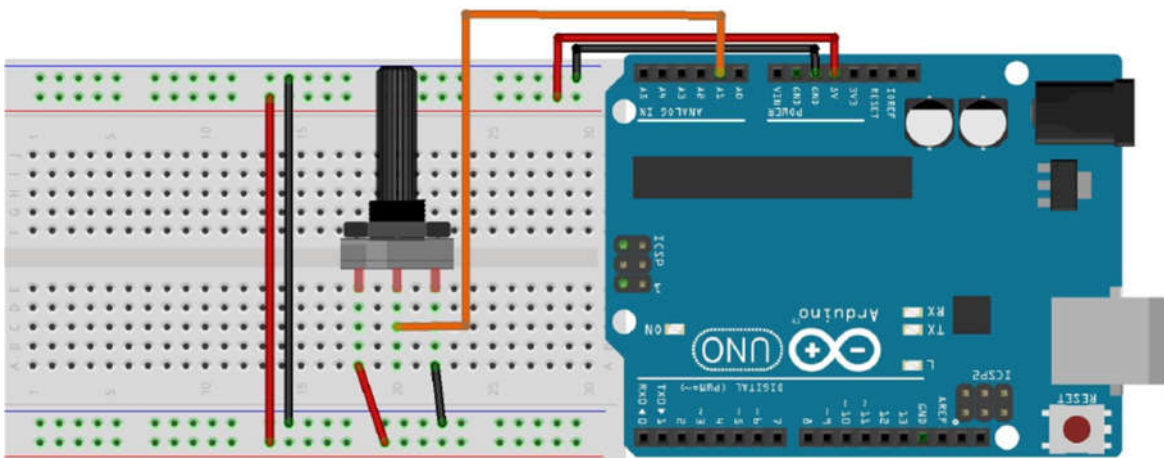
LABORATORIO N° 4

MANEJO DE POTENCIÓMETRO

```
//PRUEBA POTENCIOMETRO
void setup() {
  Serial.begin(9600); //habilitar puerto serie
}

void loop() {
  Serial.println(analogRead(A1)/4); //imprimir
  lectura del A1
  delay(50); //tiempo
}
```

1





```
int estado=1;
void setup() {
  //PUERTOS DE SALIDA
  pinMode(1,OUTPUT);
  pinMode(2,OUTPUT);
  pinMode(3,OUTPUT);
  pinMode(4,OUTPUT);
  pinMode(5,OUTPUT);
  pinMode(6,OUTPUT);
  //PUERTOS DE ENTRADA
  pinMode(8,INPUT);
  pinMode(9,INPUT);
}

void loop() {
  //LECTURA DE LOS PULSADORES
  if(digitalRead(8)==HIGH&&estado<5)
  {
    estado=estado+1;//incrementa en uno
  }
  switch(estado){
    case 1:
      mariposa();
      break;
    case 2:
      gusanito();
      break;
    case 3:
      ambulancia();
      break;
    case 4:
      parpadeo();
  }
```



```
        break;
    case 5:
        aleatorio();
        break;

}
if(estado==5)
{
    estado =1;
}
}
//FUNCIONES
void mariposa()
{
    int t=analogRead(A1)/4;
    digitalWrite(3,HIGH);
    digitalWrite(4,HIGH);
    delay(t);
    digitalWrite(2,HIGH);
    digitalWrite(5,HIGH);
    delay(t);
    digitalWrite(1,HIGH);
    digitalWrite(6,HIGH);
    delay(t);
    digitalWrite(1,LOW);
    digitalWrite(6,LOW);
    delay(t);
    digitalWrite(2,LOW);
    digitalWrite(5,LOW);
    delay(t);
    digitalWrite(3,LOW);
    digitalWrite(4,LOW);
}
```



```
{
    int t=analogRead(A1)/4;
    digitalWrite(1,HIGH);
    delay(t);
    digitalWrite(2,HIGH);
    delay(t);
    digitalWrite(1,LOW);
    digitalWrite(3,HIGH);
    delay(t);
    digitalWrite(2,LOW);
    digitalWrite(4,HIGH);
    delay(t);
    digitalWrite(3,LOW);
    digitalWrite(5,HIGH);
    delay(t);
    digitalWrite(4,LOW);
    digitalWrite(6,HIGH);
    delay(t);
    digitalWrite(5,LOW);
    delay(t);
    digitalWrite(6,LOW);
    delay(t+t+t);
}

void ambulancia()
{
    int t=analogRead(A1)/4;
    digitalWrite(1,HIGH);
    digitalWrite(2,HIGH);
    digitalWrite(3,LOW);
    digitalWrite(4,LOW);
    digitalWrite(5,HIGH);
    digitalWrite(6,HIGH);
    delay(t+t);
    digitalWrite(1,LOW);
```




```
digitalWrite (2, LOW) ;  
digitalWrite (3, LOW) ;  
digitalWrite (4, LOW) ;  
digitalWrite (5, LOW) ;  
digitalWrite (6, LOW) ;  
delay (t) ;  
digitalWrite (1, HIGH) ;  
digitalWrite (2, HIGH) ;  
digitalWrite (3, LOW) ;  
digitalWrite (4, LOW) ;  
digitalWrite (5, HIGH) ;  
digitalWrite (6, HIGH) ;  
delay (t+t) ;  
digitalWrite (1, LOW) ;  
digitalWrite (2, LOW) ;  
digitalWrite (3, LOW) ;  
digitalWrite (4, LOW) ;  
digitalWrite (5, LOW) ;  
digitalWrite (6, LOW) ;  
delay (t) ;  
digitalWrite (1, LOW) ;  
digitalWrite (2, LOW) ;  
digitalWrite (3, HIGH) ;  
digitalWrite (4, HIGH) ;  
digitalWrite (5, LOW) ;  
digitalWrite (6, LOW) ;  
delay (t+t) ;  
digitalWrite (1, LOW) ;  
digitalWrite (2, LOW) ;  
digitalWrite (3, LOW) ;  
digitalWrite (4, LOW) ;  
digitalWrite (5, LOW) ;  
digitalWrite (6, LOW) ;  
delay (t) ;
```



```
}  
void parpadeo()  
{  
    int t=analogRead(A1)/4;  
    digitalWrite(1,HIGH);  
    digitalWrite(2,HIGH);  
    digitalWrite(3,HIGH);  
    digitalWrite(4,HIGH);  
    digitalWrite(5,HIGH);  
    digitalWrite(6,HIGH);  
    delay(t);  
    digitalWrite(1,LOW);  
    digitalWrite(2,LOW);  
    digitalWrite(3,LOW);  
    digitalWrite(4,LOW);  
    digitalWrite(5,LOW);  
    digitalWrite(6,LOW);  
    delay(t);  
}  
void aleatorio()  
{  
    mariposa();  
    mariposa();  
    mariposa();  
    gusanito();  
    gusanito();  
    gusanito();  
    ambulancia();  
    ambulancia();  
    ambulancia();  
    parpadeo();  
    parpadeo();  
    parpadeo();  
}
```

