// Código Ejemplo 3

// Variables de Luz

int Led\_Pin = 3;

int Fot\_Pin = A0;

int Int\_Pin = 2;

int sensorValue = 0;

int inputValue = 0;

// Variables de Temperatura

int readValue = 0;

int lastValue = 1;

int tempPin = A1;

float voltsValue;

float tempValue;

int counter = 0;

int start = 0;

int stop = 0;

// Limites Invierno

int start1 = 18;

int stop1 = 24;

// Limites Verano

int start2 = 20;

int stop2 = 1;

void setup()

{

Serial.begin(9600);

pinMode(Led\_Pin, OUTPUT);

pinMode(Int\_Pin, INPUT);

}

void loop()

{

// Lectura Digital

inputValue = digitalRead(Int\_Pin);

if (inputValue == HIGH)

{

Serial.println("Led: Encendido");

digitalWrite(Led\_Pin, 1);

}

else

{

// Lectura Temperatura

readValue = analogRead(sensorPin);

lastValue = readValue;

voltsValue = 5.0 / 1024 \* readValue;

tempValue = voltsValue \* 100 - 50;

if( tempValue < 20 )

{

start = start1;

stop = stop1;

}

else

{

start = start2;

stop = stop2;

}

// Lectura Luz

if(counter >= start)

{

// Lectura Analógica

sensorValue = analogRead(Fot\_Pin);

if(sensorValue < 500)

{

Serial.println("Led: Encendido");

digitalWrite(Led\_Pin, 1);

}

else

{

Serial.println("Led: Apagado");

digitalWrite(Led\_Pin, 0);

}

}

else

{

Serial.println("Led: Apagado");

digitalWrite(Led\_Pin, 0);

}

}

counter++;

Serial.print("Hora: ");

Serial.println(counter);

if (counter == 24)

{

counter =0;

}

delay(1000);

}