Arduino Code for Project 3- Eversion

const int PinInterruptor=8;//Initialising the constant variable for the tilt switch

unsigned long PreviousTime=0;//Using the unsigned long variable as expleined before

int InterruptorState=0;//Initialtating variables

int PreviousStateInterruptor=0;

int Led=2;//Variable used to count which LED will be the next on lighting

long TimeIntervalocadaLed=600000;//Every 5 secons a LED will light

int c=0;

void setup() {

for(int x=2;x<8;x++){

pinMode(x,OUTPUT); //Stablishing all the LEDs as outputs

}

pinMode(PinInterruptor,INPUT); //Stablishing the switch as an input

}

void loop() {

unsigned long ActualTime=millis();//Knowing how long the program has been working

if(ActualTime-PreviousTime>TimeIntervalocadaLed){ //Veryfing if has transcurred the required time to switvh on another LED

PreviousTime=ActualTime;

digitalWrite(Led,HIGH);//Lighting a new LED

Led++;//Preparing to light the next one

if(Led==7){ //In case that there is just one LED switch off advise by blinking all LEDs when the time is about to finish(2.5 seconds before)

delay(2500);

c=0;

while(c<5){

for(int x=2;x<8;x++){

digitalWrite(x,LOW);

}

delay(500);

for(int x=2;x<8;x++){

digitalWrite(x,HIGH);

}

delay(500);

c++;

}

}

}

InterruptorState=digitalRead(PinInterruptor); //Read sensor state

if(InterruptorState !=PreviousStateInterruptor){ //Puting all variables at zero if the state has changed

for(int x=2;x<8;x++){

digitalWrite(x,LOW);

}

Led=2;

PreviousTime=ActualTime;

}

PreviousStateInterruptor=InterruptorState; //Stablishing the actual state as the previous one