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|  | **AIM: Design an automatic night lighting system such the system is only activated when the master control switch is pressed.**  **a) Below 300 lux led glows with full brightness.**  **b) Above 300 lux led glows with 50% brightness.**  Apparatus: |

CODE: const int lamp = 7;

boolean x = true;

void setup() {

Serial.begin(9600);

pinMode(lamp , OUTPUT);

}

void loop() {

int c = analogRead(A0);

delay(500);

if ( c<300 && x == true){

digitalWrite(7,HIGH);

x = false;

delay(1000);

}

else if ( c <300 && x == false){

x = true;

digitalWrite(7,LOW);

delay(1000);

analogWrite(A0,300);

delay(100);

analogWrite(A0,150);

delay(100);

analogWrite(A0,50);

delay(100);

analogWrite(A0,10);

delay(100);

analogWrite(A0,0);

delay(100);

}

}