int WATERPUMP = 13; //motor pump connected to pin 13

int sensor = 8; //sensor digital pin vonnected to pin 8

int val; //This variable stores the value received from Soil moisture sensor.

void setup() {

pinMode(13,OUTPUT); //Set pin 13 as OUTPUT pin

pinMode(8,INPUT); //Set pin 8 as input pin, to receive data from Soil moisture sensor.

//Initialize serial and wait for port to open:

Serial.begin(9600); // opens serial port, sets data rate to 9600 bps

while (! Serial);// wait for serial port to connect. Needed for native USB

Serial.println("Speed 0 to 255");

}

void loop()

{

if (Serial.available()) //loop to operate motor

{

int speed = Serial.parseInt(); // to read the number entered as text in the Serial Monitor

if (speed >= 0 && speed <= 255)

{

analogWrite(WATERPUMP, speed);// tuns on the motor at specified speed

}

}

val = digitalRead(8); //Read data from soil moisture sensor

if(val == LOW)

{

digitalWrite(13,LOW); //if soil moisture sensor provides LOW value send LOW value to motor pump and motor pump goes off

}

else

{

digitalWrite(13,HIGH); //if soil moisture sensor provides HIGH value send HIGH value to motor pump and motor pump get on

}

delay(400); //Wait for few second and then continue the loop.

}