#define s1 2

#define s2 3

#define v1 4

#define v2 5

double flowRate;

volatile int count;

char house;

int need;

void setup()

{

pinMode(s1, INPUT);

pinMode(s2, INPUT);

pinMode(v1, OUTPUT);

pinMode(v2, OUTPUT);

attachInterrupt(0, Flow, RISING);

attachInterrupt(1, Flow, RISING);

digitalWrite(v1, LOW);

digitalWrite(v2, LOW);

digitalWrite(s1, LOW);

digitalWrite(s2, LOW);

Serial.begin(9600);

Serial.println("-------WATER FLOW METER-------");

}

void loop()

{

while (Serial.available() == 0) {

;

}

if (Serial.available() > 0)

{

house = Serial.read();

switch (house)

{

case 'A':

digitalWrite(v1, HIGH);

digitalWrite(s1, HIGH);

break;

case 'B':

digitalWrite(v2, HIGH);

digitalWrite(s2, HIGH);

break;

case 'a':

digitalWrite(v1, LOW);

digitalWrite(s1, LOW);

break;

case 'b':

digitalWrite(v2, LOW);

digitalWrite(s2, LOW);

break;

default:

Serial.println("Please enter A or B for activating pipeline A and B");

Serial.println("Please enter a or b for de-activating pipeline A and B");

}

need = Serial.parseInt();

Serial.print("Entered amount of litres: ");

Serial.println(need);

flowsensor();

}

}

void flowsensor()

{

if (flowRate == need)

{

digitalWrite(v1, LOW);

digitalWrite(s1, LOW);

digitalWrite(v2, LOW);

digitalWrite(s2, LOW);

Serial.print("As per your request, ");

Serial.print(flowRate);

Serial.println(" is filled in your tank.");

}

else

{

count = 0;

interrupts();

delay(1000);

noInterrupts();

flowRate = (count \* 2.25);

flowRate = flowRate \* 60;

flowRate = flowRate / 1000;

Serial.print("Current Water Level :");

Serial.println(flowRate);

}

}

void Flow()

{

count++;

}