

## LAMPIRAN A

```
#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd(0x27, 20, 4);

const byte lampu_1 = 7;
const byte lampu_2 = 6;
const byte lampu_3 = 5;
const byte pompa = 4;
int sensor_1, sensor_2, sensor_3;
float ph1, ph2, ph3;

unsigned long prevMillis = 0;
long interval = 1000;
void setup() {
    // put your setup code here, to run once:
    pinMode (lampu_1, OUTPUT);
    pinMode (lampu_2, OUTPUT);
    pinMode (lampu_3, OUTPUT);
    pinMode (pompa, OUTPUT);
    digitalWrite (lampu_1, HIGH);
    digitalWrite (lampu_2, HIGH);
    digitalWrite (lampu_3, HIGH);
```

```

digitalWrite (pompa, HIGH);

lcd.backlight();

}

void loop() {

  // put your main code here, to run repeatedly:

  sensor_1 = analogRead (A0);
  sensor_2 = analogRead (A1);
  sensor_3 = analogRead (A2);

  ph1 = map (sensor_1, 0, 1023, 1023, 0);
  ph2 = map (sensor_2, 0, 1023, 1023, 0);
  ph3 = map (sensor_3, 0, 1023, 1023, 0);

  lcd.init();

  unsigned long millis();

  if (millis() - prevMillis >= interval) {

    prevMillis = millis();

    lcd.clear();

  }

  lcd.setCursor (0, 0); lcd.print ("RH 1 :");
  lcd.setCursor (7, 0); lcd.print (ph1);
  lcd.setCursor (0, 1); lcd.print ("RH 2 :");

```

```
lcd.setCursor (7, 1); lcd.print (ph2);
```

```
lcd.setCursor (0, 2); lcd.print ("RH 3 :");
```

```
lcd.setCursor (7, 2); lcd.print (ph3);
```

```
if (ph1 <= 300) {
```

```
    lcd.setCursor (14, 0); lcd.print ("kering");
```

```
}
```

```
if ((ph1 >= 301) & (ph1 <= 500)) {
```

```
    lcd.setCursor (14, 0); lcd.print ("lembab");
```

```
}
```

```
if (ph1 >= 501) {
```

```
    lcd.setCursor (14, 0); lcd.print ("basah");
```

```
}
```

```
if (ph2 <= 300) {
```

```
    lcd.setCursor (14, 1); lcd.print ("kering");
```

```
}
```

```
if ((ph2 >= 301) & (ph2 <= 500)) {
```

```
    lcd.setCursor (14, 1); lcd.print ("lembab");
```

```
}
```

```
if (ph2 >= 501) {
```

```
lcd.setCursor (14, 1); lcd.print ("basah");  
}  
  
if (ph3 <= 300) {  
    lcd.setCursor (14, 2); lcd.print ("kering");  
}  
if ((ph3 >= 301) & (ph3 <= 500)) {  
    lcd.setCursor (14, 2); lcd.print ("lembab");  
}  
if (ph3 >= 501) {  
    lcd.setCursor (14, 2); lcd.print ("basah");  
}  
  
if (ph1 <= 300) {  
    digitalWrite (lampu_1, LOW);    // RELAY ON  
    digitalWrite (pompa, LOW);  
}  
else {  
    digitalWrite (lampu_1, HIGH);  
}
```

```
if (ph2 <= 300) {  
    digitalWrite (lampu_2, LOW);  
    digitalWrite (pompa, LOW);  
}  
else {  
    digitalWrite (lampu_2, HIGH);  
}  
if (ph3 <= 300) {  
    digitalWrite (lampu_3, LOW);  
    digitalWrite (pompa, LOW);  
}  
else {  
    digitalWrite (lampu_3, HIGH);  
}  
  
if ((ph1 > 300) and (ph2 > 300) and (ph3 > 300)) {  
    digitalWrite (pompa, HIGH);  
}  
}
```

## LAMPIRAN B



B-1



B-2





## BIODATA PENULIS



Nama : Pramestian Risqi Ramadhan  
Tempat Tanggal Lahir : Cilacap, 1 Desember 2000  
Alamat : Jl. Menur, NO.04 RT/RW 003/004,  
Kel/Desa Wlahar, Kec Adipala,  
Cilacap, Jawa Tengah.  
Email : pramestian135@gmail.com  
No Telepon : 085385169151  
Motto : Jika kita bersungguh-sungguh, maka  
kita akan memperoleh kesuksesan  
Hobi : Badminton

### **Riwayat Pendidikan:**

1. SDN 01 Wlahar (2007-2012)
2. SMPN 01 Adipala (2013-2015)
3. SMKN Dr.Soetomo Cilacap (2016-2018)
4. Politeknik Negeri Cilacap (2019-2022)