

## LAMPIRAN 1

## JADWAL PENELITIAN

## LAMPIRAN 2

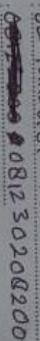
### SURAT KETERANGAN BEBAS PINJAM BUKU PERPUSTAKAAN

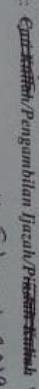
  
**PERPUSTAKAAN  
UNIVERSITAS MUHAMMADIYAH SURABAYA**

**A S L I**

#### **SURAT KETERANGAN BEBAS PINJAM**

Dengan ini menyatakan bahwa :

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Tidak memiliki pinjaman bahan pustaka di Perpustakaan Universitas Muhammadiyah Surabaya.  
Surat keterangan ini digunakan untuk: 

Surabaya, 11 Februari 2019

Petugas Perpustakaan,

  
Dr. Mis'iani, M.A.

\* Coret yang tidak perlu

## LAMPIRAN 3

### ENDORSEMENT PUSAT BAHASA



### UNIVERSITAS MUHAMMADIYAH SURABAYA PUSAT BAHASA

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#### ENDORSEMENT LETTER

165/PB-UMS/EL/III/2021

This letter is to certify that the abstract of the thesis below

Title : Design of Automatic Baby Bottle Washer and Milk Filler Using Arduino Uno Microcontroller  
Student's name : Dian Surya Hadi  
Reg. Number : 20121330001  
Department : S1 Teknik Elektro

has been endorsed by Pusat Bahasa *UMSurabaya* for further approval by the examining committee of the faculty.

Surabaya, 10 Maret 2021

Chair

A handwritten signature in black ink, appearing to read "Hamsia". Above the signature, the word "Chair" is written vertically next to the university logo. Below the signature, the name "Waode Hamsia, M.Pd." is printed in a standard font.

Waode Hamsia, M.Pd

## LAMPIRAN 4

### **PROGRAM YANG DIGUNAKAN DALAM PEMBUATAN ALAT**

#### ***SKETCH PROGRAM ARDUINO***

```
const int PIN_3 = 3;//motor pembalik kanan
```

```
const int PIN_4 = 4;//brush kiri
```

```
const int PIN_12 = 12;//pompa brush
```

```
const int PIN_5 = 5;//brush kanan
```

```
const int PIN_11 = 11;//sterilizer n fan
```

```
const int PIN_2 = 2;//brush pembalik kiri
```

```
const int PIN_6 = 6;//motor rail kanan
```

```
const int PIN_10 = 10;//pompa pengisi air
```

```
const int PIN_9 = 9;//motor drop kiri
```

```
const int PIN_8 = 8;//motor drop kanan
```

```
const int PIN_7 = 7;//motor rail kiri
```

```
const int PIN_13 = 13;//spare
```

```
void setup() {
```

```
  pinMode(PIN_2, OUTPUT);//R3
```

```
  pinMode(PIN_3, OUTPUT);//R1 N R2
```

```
pinMode(PIN_4, OUTPUT); //R4  
pinMode(PIN_5, OUTPUT); //R5 N R6  
pinMode(PIN_6, OUTPUT); //R7  
pinMode(PIN_7, OUTPUT); //R8 N R9  
pinMode(PIN_8, OUTPUT); //R10  
pinMode(PIN_9, OUTPUT); //R11 N R12  
pinMode(PIN_10, OUTPUT); //R13  
pinMode(PIN_11, OUTPUT); //R14  
pinMode(PIN_12, OUTPUT); //R15  
pinMode(PIN_13, OUTPUT); //SPARE
```

```
digitalWrite(PIN_2, HIGH);  
digitalWrite(PIN_3, HIGH);  
digitalWrite(PIN_4, HIGH);  
digitalWrite(PIN_5, HIGH);  
digitalWrite(PIN_6, HIGH);  
digitalWrite(PIN_7, HIGH);  
digitalWrite(PIN_8, HIGH);  
digitalWrite(PIN_9, HIGH);
```

```
digitalWrite(PIN_10, HIGH);  
digitalWrite(PIN_11, HIGH);  
digitalWrite(PIN_12, HIGH);  
digitalWrite(PIN_13, HIGH);
```

```
digitalWrite(PIN_3, HIGH);  
delay(3000);
```

```
digitalWrite(PIN_3, LOW);  
delay(500);
```

```
digitalWrite(PIN_13, HIGH);  
delay(3000);
```

```
digitalWrite(PIN_13, LOW);  
delay(500);
```

```
digitalWrite(PIN_13, HIGH);  
delay(3000);
```

```
digitalWrite(PIN_12, LOW);
```

```
delay(3000);
```

```
digitalWrite(PIN_12, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_5, LOW);
```

```
delay(5000);
```

```
digitalWrite(PIN_5, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_4, LOW);
```

```
delay(5000);
```

```
digitalWrite(PIN_4, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_11, LOW);
```

```
delay(5000);
```

```
digitalWrite(PIN_11, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_2, LOW);
```

```
delay(500);
```

```
digitalWrite(PIN_2, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_6, LOW);
```

```
delay(800);
```

```
digitalWrite(PIN_6, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_10, LOW);
```

```
delay(1500);

digitalWrite(PIN_10, HIGH);
delay(3000);

digitalWrite(PIN_6, LOW);
delay(900);

digitalWrite(PIN_6, HIGH);
delay(3000);

digitalWrite(PIN_9, LOW);
delay(150);

digitalWrite(PIN_9, HIGH);
delay(3000);

digitalWrite(PIN_8, LOW);
delay(150);
```

```
digitalWrite(PIN_8, HIGH);
```

```
delay(3000);
```

```
digitalWrite(PIN_6, LOW);
```

```
delay(2000);
```

```
digitalWrite(PIN_6, HIGH);
```

```
delay(10000);
```

```
digitalWrite(PIN_7, LOW);
```

```
delay(5000);
```

```
digitalWrite(PIN_7, HIGH);
```

```
delay(3600000);
```

```
}
```

## LAMPIRAN 5

### RIWAYAT HIDUP PENULIS



**DIAN SURYA HADI**, Dilahirkan di Kota Surabaya 7 Desember 1992. Anak pertama dan terakhir dari pasangan Bpk Hadi Prayitno dan ibu Soelistyowati, Penulis menyelesaikan pendidikan SekolahDasar di SDN Kertajaya VII Surabaya pada tahun tahun 2005. Pada tahun itu juga Penulis melanjutkan Pendidikan SMP di SMPN 19 Surabaya dan tamat pada tahun 2008, kemudian melanjutkan

Sekolah Menengah Kejuruan di SMK SMKN 5 Surabaya pada tahun 2008 dan seslesai pada tahun 2011. Pada tahun itu juga Penulis melanjutkan pendidikan di perguruan tinggi swasta, tepatnya di UniversitasMuhammadiyah Surabaya FakultasTeknikpda Program StudiTeknikElektro.