

LAMPIRAN

1. Listing Program Mikrokontroler

```
#include <SoftwareSerial.h>

SoftwareSerial mySerial(10, 11); //Pin10 RX , Pin 11 TX connected to-->
Bluetooth TX,RX

#define Lamp1 2
#define Lamp2 3
#define Lamp3 4
#define Lamp4 5
#define Lamp5 6
#define Lamp6 7
#define Lamp7 8
#define Lamp8 9

//If Out to active Low change ON 0 and OFF 1
//If Out to active High change ON 1 and OFF 0
#define ON 0
#define OFF 1

char val;

String
statusLamp1,statusLamp2,statusLamp3,statusLamp4,statusLamp5,statusLa
mp6,statusLamp7,statusLamp8;

void setup() {
    pinMode(Lamp1,OUTPUT);digitalWrite (Lamp1,OFF);
```

```
pinMode(Lamp2,OUTPUT);digitalWrite (Lamp2,OFF);
pinMode(Lamp3,OUTPUT);digitalWrite (Lamp3,OFF);
pinMode(Lamp4,OUTPUT);digitalWrite (Lamp4,OFF);
pinMode(Lamp5,OUTPUT);digitalWrite (Lamp5,OFF);
pinMode(Lamp6,OUTPUT);digitalWrite (Lamp6,OFF);
pinMode(Lamp7,OUTPUT);digitalWrite (Lamp7,OFF);
pinMode(Lamp8,OUTPUT);digitalWrite (Lamp8,OFF);
mySerial.begin(9600);
Serial.begin(9600);
}
```

```
void loop() {
//cek data serial from bluetooth android App
if( mySerial.available() >0 ) {
    val = mySerial.read();
    Serial.println(val);
}
//Lamp is on
if( val == '1' ) {
    digitalWrite(Lamp1,OFF); statusLamp1="1"; }
else if( val == '2' ) {
    digitalWrite(Lamp2,OFF); statusLamp2="2"; }
else if( val == '3' ) {
    digitalWrite(Lamp3,OFF); statusLamp3="3"; }
else if( val == '4' ) {
    digitalWrite(Lamp4,OFF); statusLamp4="4"; }
else if( val == '5' ) {
    digitalWrite(Lamp5,OFF); statusLamp5="5"; }
```

```
else if( val == '6' ) {
    digitalWrite(Lamp6,OFF); statusLamp6="6"; }
else if( val == '7' ) {
    digitalWrite(Lamp7,OFF); statusLamp7="7"; }
else if( val == '8' ) {
    digitalWrite(Lamp8,OFF); statusLamp8="8"; }
else if( val == '9' ) {
    digitalWrite(Lamp1,OFF); statusLamp1="1";
    digitalWrite(Lamp2,OFF); statusLamp2="2";
    digitalWrite(Lamp3,OFF); statusLamp3="3";
    digitalWrite(Lamp4,OFF); statusLamp4="4";
    digitalWrite(Lamp5,OFF); statusLamp5="5";
    digitalWrite(Lamp6,OFF); statusLamp6="6";
    digitalWrite(Lamp7,OFF); statusLamp7="7";
    digitalWrite(Lamp8,OFF); statusLamp8="8";
}
//Lamp is off
else if( val == 'A' ) {
    digitalWrite(Lamp1,ON); statusLamp1="A"; }
else if( val == 'B' ) {
    digitalWrite(Lamp2,ON); statusLamp2="B"; }
else if( val == 'C' ) {
    digitalWrite(Lamp3,ON); statusLamp3="C"; }
else if( val == 'D' ) {
    digitalWrite(Lamp4,ON); statusLamp4="D"; }
else if( val == 'E' ) {
    digitalWrite(Lamp5,ON); statusLamp5="E"; }
else if( val == 'F' ) {
```

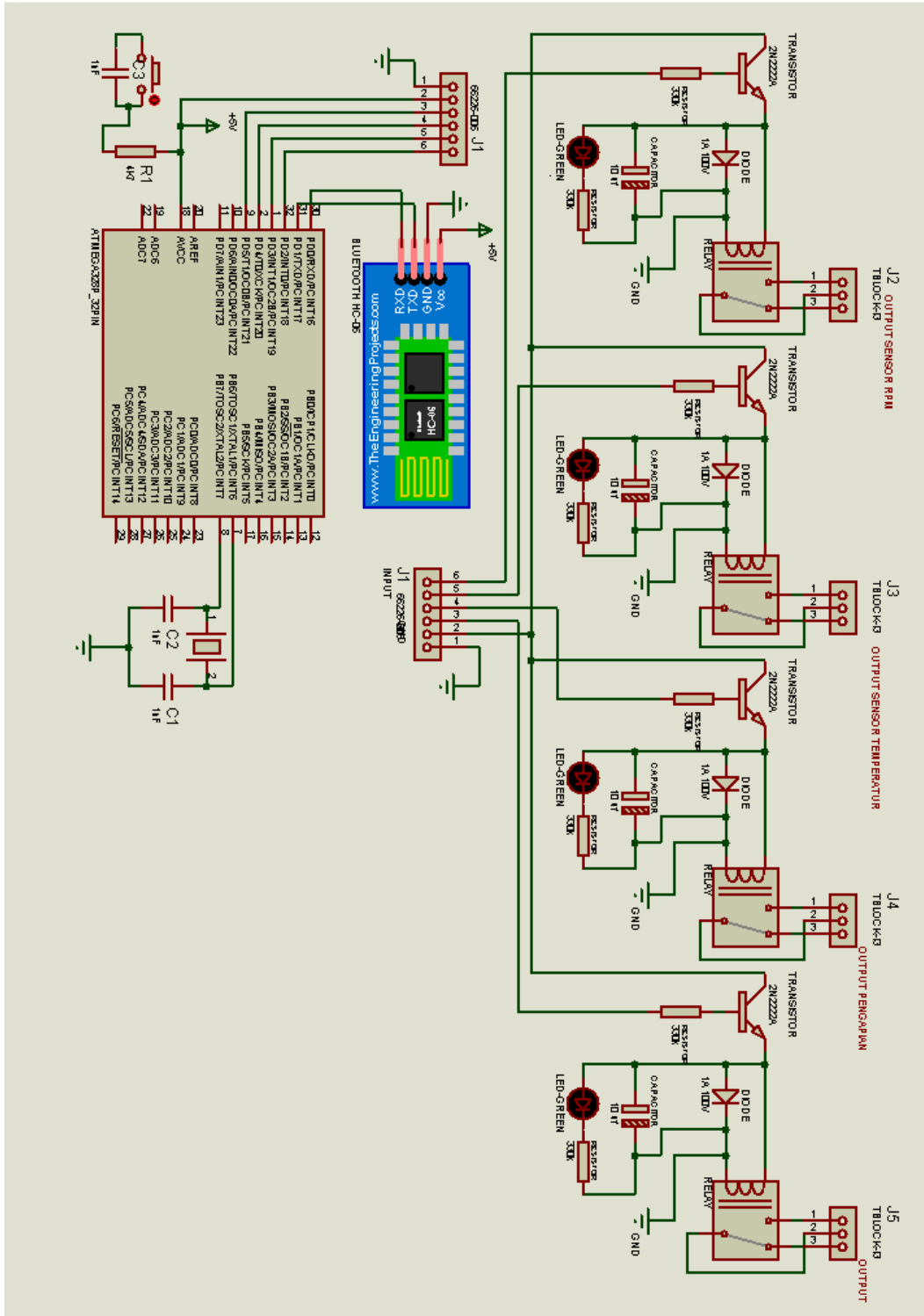
```

    digitalWrite(Lamp6,ON); statusLamp6="F"; }
else if( val == 'G' ) {
    digitalWrite(Lamp7,ON); statusLamp7="G"; }
else if( val == 'H' ) {
    digitalWrite(Lamp8,ON); statusLamp8="H"; }
else if( val == 'I' ) {
    digitalWrite(Lamp1,ON); statusLamp1="A";
    digitalWrite(Lamp2,ON); statusLamp2="B";
    digitalWrite(Lamp3,ON); statusLamp3="C";
    digitalWrite(Lamp4,ON); statusLamp4="D";
    digitalWrite(Lamp5,ON); statusLamp5="E";
    digitalWrite(Lamp6,ON); statusLamp6="F";
    digitalWrite(Lamp7,ON); statusLamp7="G";
    digitalWrite(Lamp8,ON); statusLamp8="H";
}
//synchronize Arduino to APK
else if( val == 'S' ) {
    //send data to android apk
    delay(500);

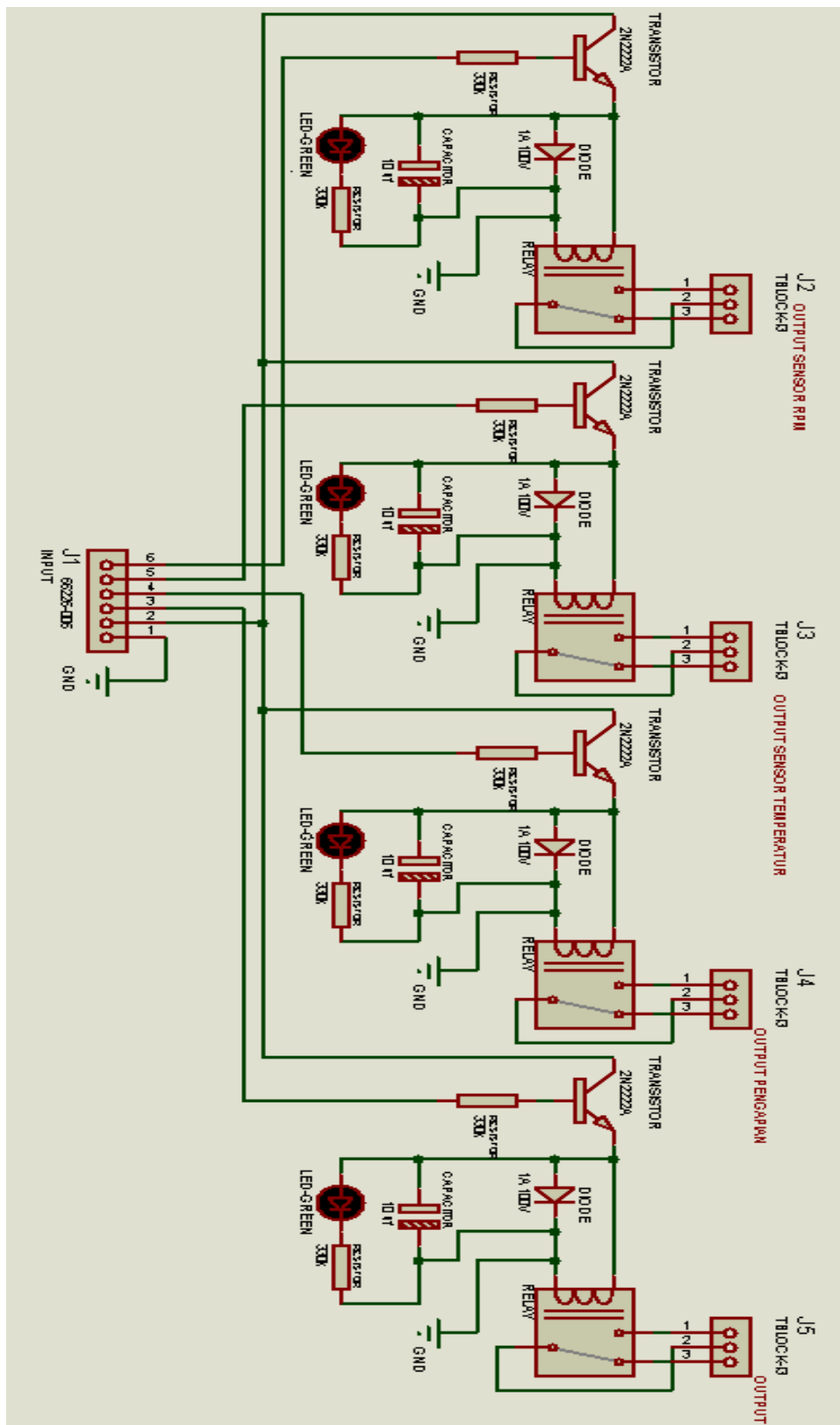
mySerial.println(statusLamp1+statusLamp2+statusLamp3+statusLamp4+sta
tusLamp5+statusLamp6+statusLamp7+statusLamp8+"J"); //delay(500);
    val=' ';
}
}

```

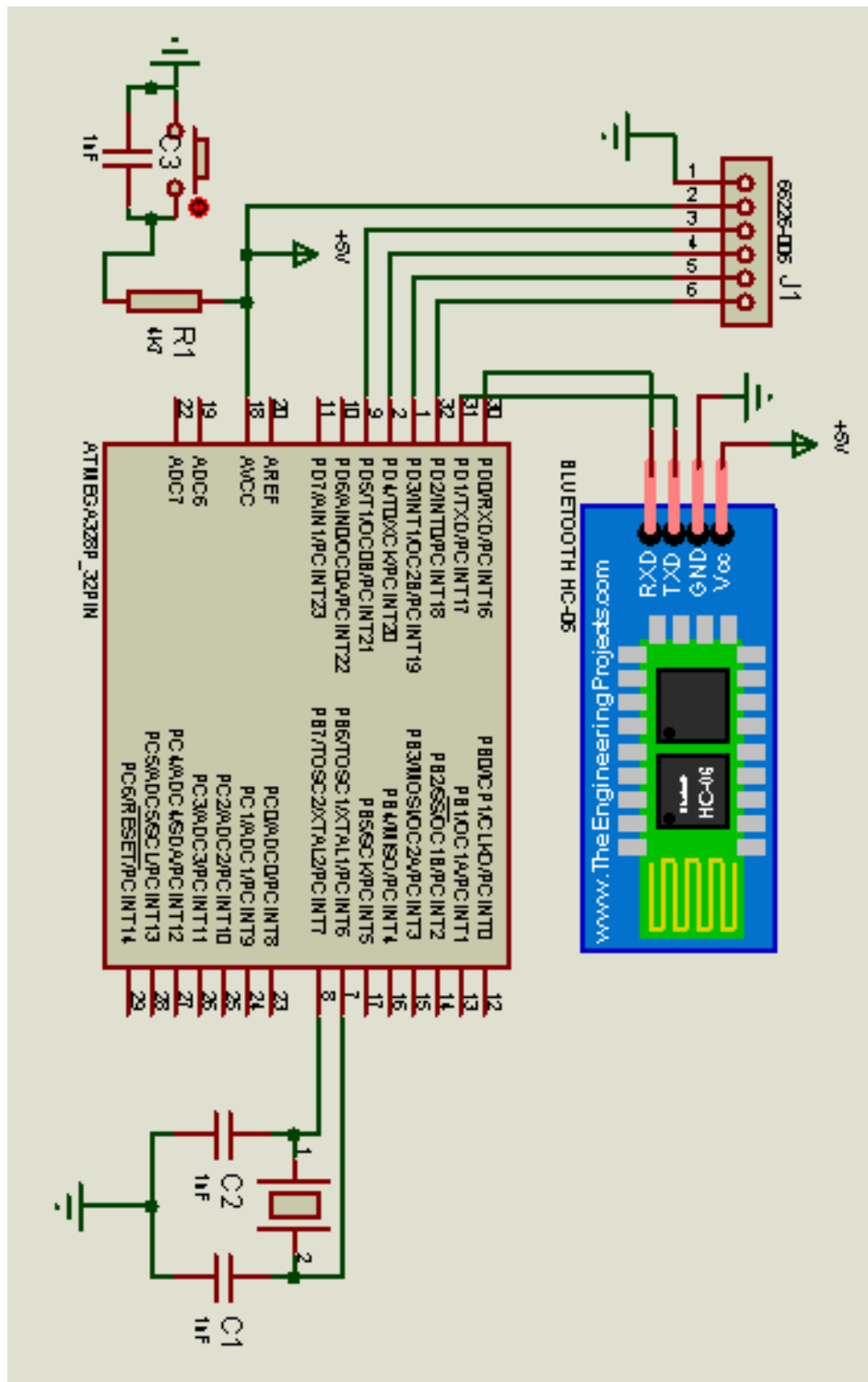
2. Skematik sistem elektrikal *prototype mini jet engine*



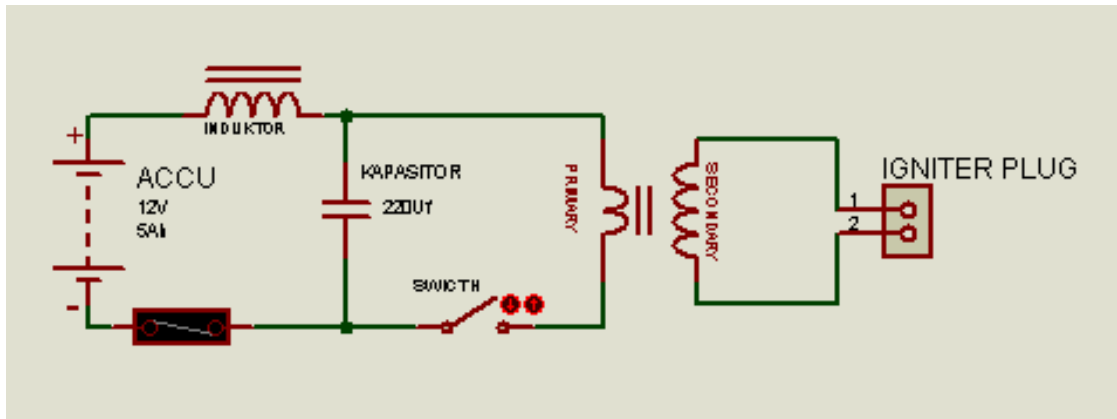
Skematik Mikrokontroler



Skematik Driver Relay

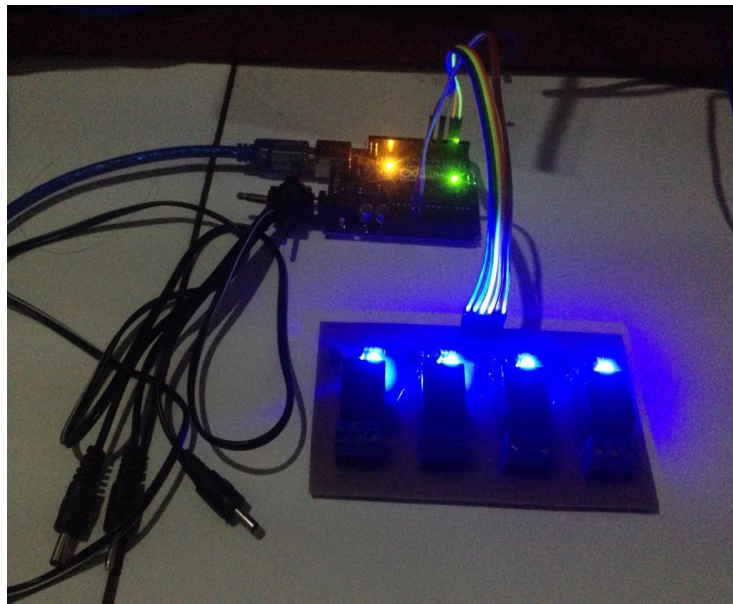


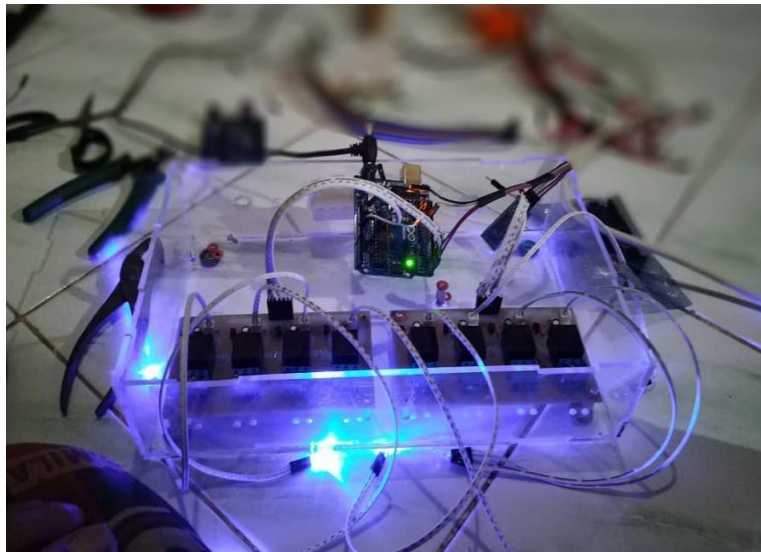
Skematik Arduino

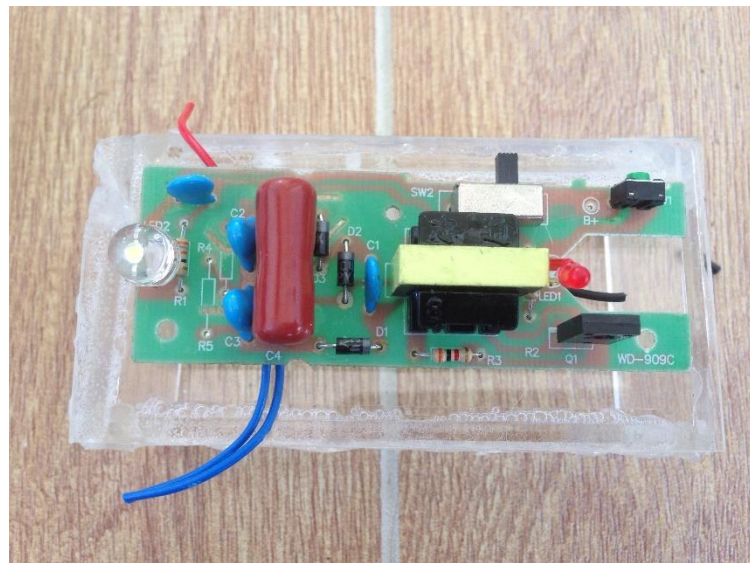


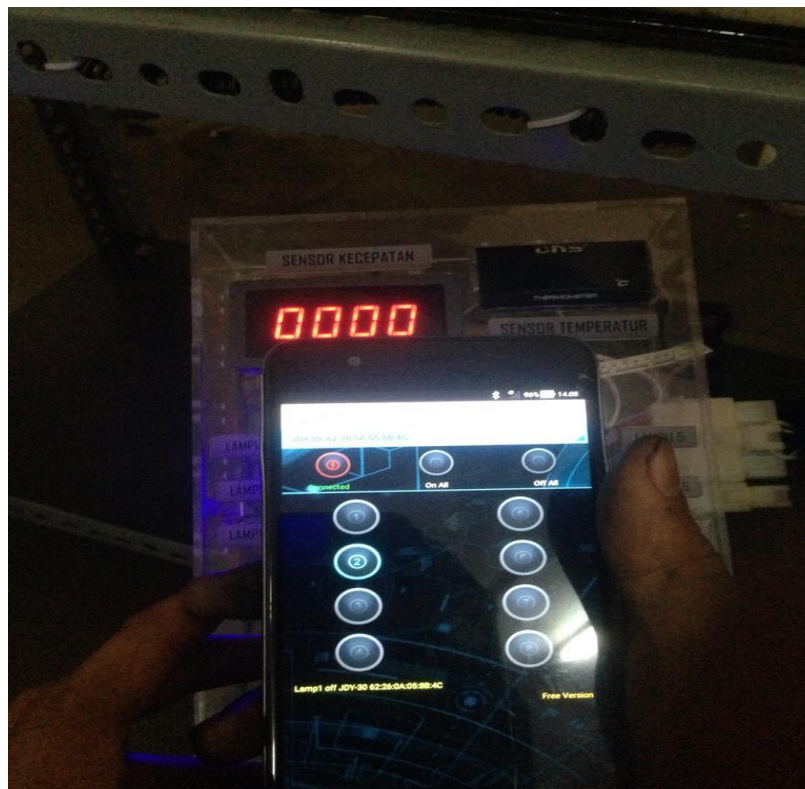
Skematik Pengapian

3. Mikrokontroler









4. Mini Jet Engine







