LAMPIRAN II
LISTING PROGRAM

```
#include <EEPROM.h>

#include <LiquidCrystal.h>

#include <IRremote.h>

#include <TimerFreeTone.h>


LiquidCrystal lcd(32, 34, 36, 38, 40, 42);

int recvPin = 11;

IRrecv irrecv(recvPin);


byte code,cod[6],cods[6],codn[6];

byte cm,n,z,i;


#define TONE_PIN 8

const int sn = 51;

boolean flag;


void setup() {

  // put your setup code here, to run once:

  Serial.begin(9600);   // Status message
will be sent to PC at 9600 baud

  irrecv.enableIRIn(); // Start the receiver

  pinMode(sn,OUTPUT);

   lcd.begin(16, 2);


//attachInterrupt(digitalPinToInterrupt(19
), hrst, RISING);

attachInterrupt(digitalPinToInterrupt(21),
snaktif, RISING);

  chkmem();

}



/*void hrst(){

  EEPROM.write(39,0);

}*/

void snaktif(){

  flag = true;

}


void chkmem(){

cm = EEPROM.read(39);

if (cm==0){

newpin();

EEPROM.write(39,1);

}

else

for(i=0;i<6;i++){

  codn[i]=EEPROM.read(40+i);

  cods[i]=codn[i];

}

}


void  ircode (decode_results *results)

{


  // Print Code

  //Serial.print(results->value, HEX);
```

```cpp
//Serial.print("\n");
//code = results->value & 255;
code = results->value / 19088743;
//Serial.print(code,HEX);
}


//Selenoid
void selenoid(){
 digitalWrite(sn,HIGH);
 lcd.clear();
 lcd.print("Welcome...");
 for(i=30;i>0;i--){
   lcd.setCursor(0,1);

if(i<10){lcd.print("0");lcd.setCursor(1,1);
}
   lcd.print(i);
   delay(1000);
   }
 digitalWrite(sn,LOW);
 lcd.clear();
}
void newpin(){
 n=0;
 getpin();
 for(i=0;i<6;i++){
 codn[i]=cod[i];
 }
 lcd.clear();
 lcd.print("Ulangi lagi");
 getpin();

for(i=0;i<6;i++){
 if(codn[i]=cod[i])n++;
}


 if(n==6)
 for(i=0;i<6;i++){
 EEPROM.write(40+i, codn[i]);
 cods[i] = codn[i];
 n=0;
 }
 else newpin();


}
 //mengambil data
void getpin(){
 decode_results  results;
 lcd.clear();
 lcd.print("Masukkan PIN:");
 i=0;
 do{
 if (irrecv.decode(&results)) {  // Grab
an IR code
   ircode(&results);
   cod[i]= code;
   //write lcd here
   lcd.setCursor(i,1);
   lcd.print("*");
   irrecv.resume();
   i++;
   }
   }while(i<6);
```

```arduino
    delay(400);
}

void loop() {
  // put your main code here, to run repeatedly:
  do{
    byte x=0;
    byte y=0;

    //buka tanpa melalui remote
        if(flag==true){
    selenoid();
    flag=false;
    }

    getpin();
    for(i=0;i<6;i++){
     if (cod[i]==cods[i]) x++;
     if (cod[i]==cods[5-i]) y++; //ganti pin
     cod[i]=0;
    }
    if (x==5 && y!=5){ //BENAR
      //selenoid
      selenoid();
      z=1;
    }
    if (y==5 && x!=5){
      //ganti password
      newpin();
      z=1;

    }
    if (x==5 && y==5){
    //selenoid
    selenoid();
    //ganti password
    newpin();
    z=1;
    }
    if (x!=5 && y!=5 && cod[1]==0){
    lcd.clear();
    lcd.print("PIN salah");
    //buzz1
TimerFreeTone(TONE_PIN,262,2000);
    z++;
  }
  }while (z<3);

TimerFreeTone(TONE_PIN,262,300000);
    //buzz2
    z=1;
}
```