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This program was produced by the

CodeWizardAVR V2.03.4 Standard

Automatic Program Generator

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Project :

Version :

Date : 3/29/2012

Author :

Company :

Comments:

Chip type : ATmega8535

Program type : Application

Clock frequency : 11.059200 MHz

Memory model : Small

External RAM size : 0

Data Stack size : 128

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\*/

#include <mega8535.h>

```
#include <stdio.h>

#include <stdlib.h>

// Alphanumeric LCD Module functions

#asm

    .equ __lcd_port=0x15 ;PORTC

#endasm

#include <lcd.h>

#include <delay.h>

#define ADC_VREF_TYPE 0x40

// Read the AD conversion result

unsigned int read_adc(unsigned char adc_input)

{

    ADMUX=adc_input | (ADC_VREF_TYPE & 0xff);

    // Delay needed for the stabilization of the ADC input voltage

    delay_us(10);

    // Start the AD conversion

    ADCSRA|=0x40;

    // Wait for the AD conversion to complete

    while ((ADCSRA & 0x10)==0);

    ADCSRA|=0x10;
```

```
return ADCW;
```

```
}
```

```
// Declare your global variables here
```

```
void main(void)
```

```
{
```

```
// Declare your local variables here
```

```
float suhu;
```

```
char tampil[33];
```

```
int vin;
```

```
PORTA=0x00;
```

```
DDRA=0x00;
```

```
PORTB=0x00;
```

```
DDRB=0x00;
```

```
PORTC=0x00;
```

```
DDRC=0x00;
```

```
PORTD=0x10;
```

```
DDRD=0x07;
```

TCCR0=0x00;

TCNT0=0x00;

OCR0=0x00;

TCCR1A=0x00;

TCCR1B=0x00;

TCNT1H=0x00;

TCNT1L=0x00;

ICR1H=0x00;

ICR1L=0x00;

OCR1AH=0x00;

OCR1AL=0x00;

OCR1BH=0x00;

OCR1BL=0x00;

ASSR=0x00;

TCCR2=0x00;

TCNT2=0x00;

OCR2=0x00;

MCUCR=0x00;

MCUCSR=0x00;

// Timer(s)/Counter(s) Interrupt(s) initialization

```
TIMSK=0x00;

ACSR=0x80;
SFIOR=0x00;

// ADC initialization
// ADC Clock frequency: 691.200 kHz
// ADC Voltage Reference: AVCC pin
// ADC High Speed Mode: Off
// ADC Auto Trigger Source: None
ADMUX=ADC_VREF_TYPE & 0xff;
ADCSRA=0x84;
SFIOR&=0x00;

// LCD module initialization
lcd_init(16);

lcd_gotoxy(3,0);
lcd_putsf("TUGAS AKHIR" );
lcd_gotoxy(1,1);
lcd_putsf("TEKNIK ELEKTRO");
delay_ms(1000);
lcd_clear();
```

```
delay_ms(1000);  
  
lcd_gotoxy(0,0);  
  
lcd_putsf("TERMOMETER BADAN");  
  
delay_ms(1000);  
  
lcd_clear();  
  
lcd_gotoxy (3,0);  
  
lcd_putsf ("LALU TEKAN");  
  
lcd_gotoxy (2,1);  
  
lcd_putsf ("TOMBOL START");delay_ms(1000);lcd_clear();
```

```
delay_ms(50);
```

```
while (1)
```

```
{
```

```
{
```

```
// Place your code here
```

```
if (PIND.4==0)
```

```
while(1)
```

```
{

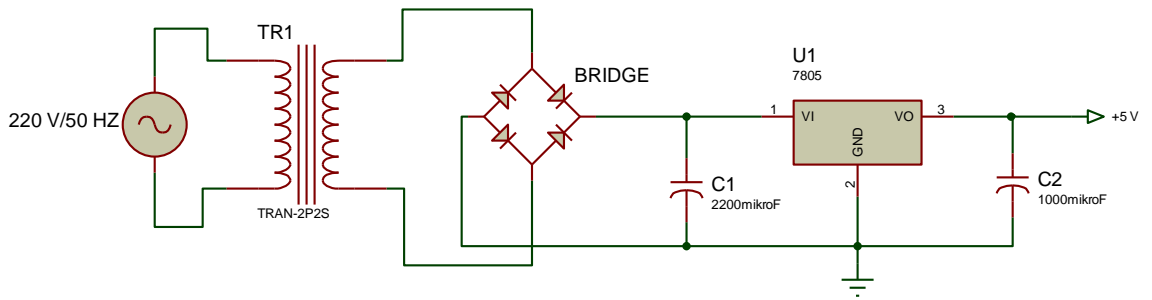
    vin=read_adc(0);
    suhu=(((float)vin*500)/1023);
    lcd_gotoxy (0,0);
    lcd_putsf ("  SUHU BADAN  ");
    lcd_gotoxy(12,1);
    lcd_putchar(0xdf);
    lcd_gotoxy(7,1);
    ftoa(suhu,1,tampil);
    lcd_puts(tampil);
    lcd_gotoxy (13,1);
    lcd_putsf ("C");

    if (suhu >=39 )
    {
        delay_ms(1500);
        PORTD.0=1;
        PORTD.1=0;
        PORTD.2=0;
    }

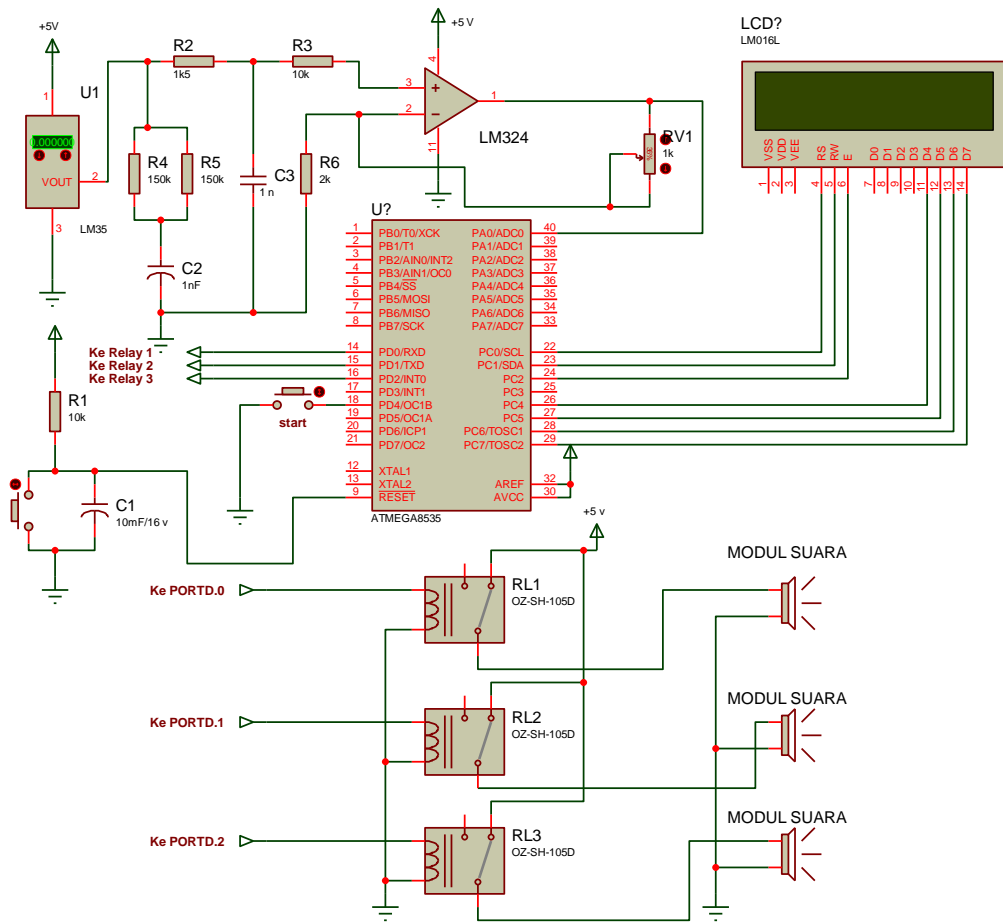
    else if (suhu >=35 )
```

```
{  
    delay_ms(1500);  
    PORTD.0=0;  
    PORTD.1=1;  
    PORTD.2=0;  
}  
  
else if (suhu <=33)  
{  
    delay_ms(1500);  
    PORTD.0=0;  
    PORTD.1=0;  
    PORTD.2=1;  
}  
}  
}  
}  
};
```

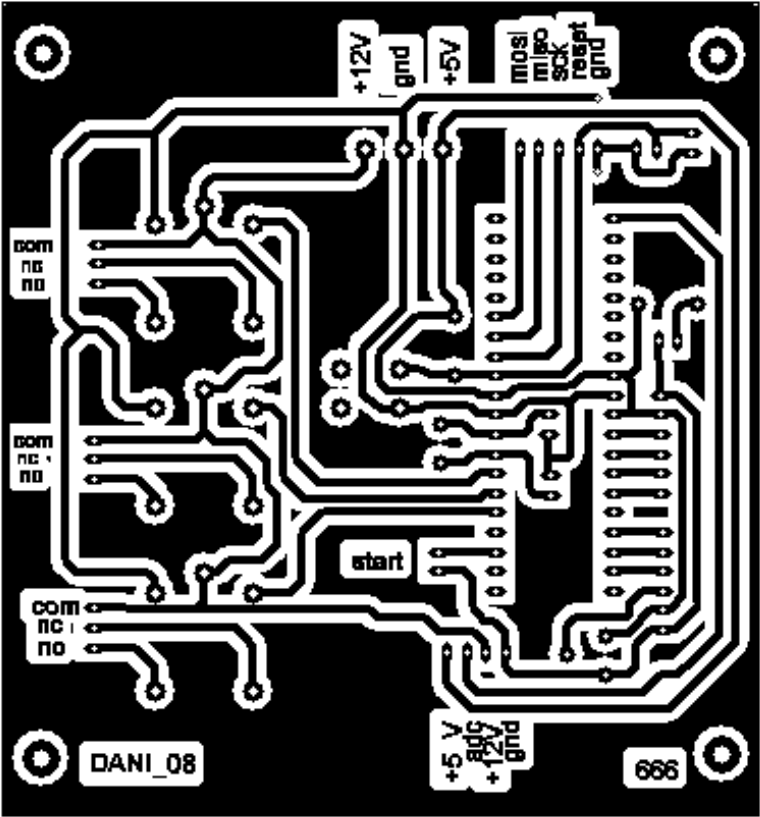




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Gambar *Layout* PCB