

## LAMPIRAN

### List Program

/\*\*\*\*\*

This program was produced by the

CodeWizardAVR V2. 05. 3 Standard

Automatic Program Generator

© Copyright 1998-2011 Pavel Haiduc, HP InfoTech s. r. l.

<http://www.hpinfotech.com>

Project :

Version :

Date : 7/22/2018

Author : USER

Company :

Comments:

Chip type : ATmega8

Program type : Application

AVR Core *Clock* frequency: 8.000000 MHz

Memory model : Small

External RAM size : 0

Data Stack size : 256

\*\*\*\*\*/

```
#include <mega8. h>
```

```
#include <stdio. h>
```

```
#include <alcd. h>
```

```
#include <stdlib. h>
```

```

#include <delay. h>
#define up  PINB. 5
#define down PINB. 4
#define set  PINB. 3
#define ok  PINB. 0
#define motor  OCR1A
int frekuensi=0,rpm,detik,loop;
int menu=0,menit=5,speed=100,flag;

char buf[33];
interrupt [EXT_INT0] void ext_int0_isr(void)
{
frekuensi++;
}

interrupt [TIM0_OVF] void timer0_ovf_isr(void)
{
TCNT0=0x8A;

loop++;
if(flag==1){
if (loop>=100)
{
rpm=(float)frekuensi*60;//formula perhitungan kecepatan
frekuensi=0;
detik--;
if(detik<0){detik=59;menit--;}
loop=0;
}
}
}

```

```

    }
}

void setting()
{
if(!set){delay_ms(500);menu=menu+1;}
if(menu>1){menu=0;}
if(menu==0)
{
lcd_gotoxy(0,0);
sprintf(buf," Time :%d Menit",menit);
lcd_puts(buf);
lcd_gotoxy(0,1);
sprintf(buf,">Speed:%d Rpm",speed);
lcd_puts(buf);
if(!up){delay_ms(500);speed=speed+10;}
if(!down){delay_ms(500);speed=speed-10;}
if(speed<0){speed=250;}
if(speed>255){speed=0;}
}
if(menu==1)
{
lcd_gotoxy(0,0);
sprintf(buf,">Time :%d Menit",menit);
lcd_puts(buf);
lcd_gotoxy(0,1);
sprintf(buf," Speed:%d Rpm",speed);
lcd_puts(buf);
if(!up){delay_ms(500);menit=menit+1;}

```

```

if(!down){delay_ms(500);menit=menit-1;}
if(menit<0){menit=30;}
if(menit>30){menit=0;}

}

}

void run(){
setting();
detik=0;
while(1){
flag=1;
OCR1A=speed;
lcd_gotoxy(0,0);
sprintf(buf,"Time:%d:%d",menit,detik);
lcd_puts(buf);
lcd_gotoxy(0,1);
sprintf(buf,"Rpm :%d",rpm);
lcd_puts(buf);
delay_ms(100);
lcd_clear();
if(menit==0 && detik==0){delay_ms(100);break;}
if(!ok){delay_ms(100);break;}

}

}

void main(void)

```

```
{  
PORTB=0x39;  
DDRB=0x06;  
PORTC=0x00;  
DDRC=0x00;  
PORTD=0x00;  
DDRD=0x00;  
TCCR0=0x05;  
TCNT0=0x8A;  
TCCR1A=0xA1;  
TCCR1B=0x03;  
TCNT1H=0x02;  
TCNT1L=0xFF;  
ICR1H=0x00;  
ICR1L=0x00;  
OCR1AH=0x00;  
OCR1AL=0x00;  
OCR1BH=0x00;  
OCR1BL=0x00;  
ASSR=0x00;  
TCCR2=0x00;  
TCNT2=0x00;  
OCR2=0x00;  
GICR|=0x40;  
MCUCR=0x02;  
GIFR=0x40;  
TIMSK=0x01;  
UCSRB=0x00;  
ACSR=0x80;
```

```
SFIOR=0x00;
ADCSRA=0x00;
SPCR=0x00;
TWCR=0x00;
lcd_init(16);
#asm("sei")

while (1)
{

    setting();
    flag=0;
    OCR1A=0;
    if(!ok){delay_ms(250);run();}

delay_ms(100);
lcd_clear();
}
}
```

Daftar gambar









