

## LISTING PROGRAM

```
/*  
*****  
*****
```

This program was produced by the  
CodeWizardAVR V2.03.9 Standard  
Automatic Program Generator  
© Copyright 1998-2008 Pavel Haiduc, HP  
InfoTech s.r.l.  
<http://www.hpinfotech.com>

Project :  
Version :  
Date : 12/13/2012  
Author : kharis  
Company : Teknik Komputer  
Comments:

Chip type : ATmega8535  
Program type : Application  
AVR Core Clock frequency: 12.000000  
MHz  
Memory model : Small  
External RAM size : 0  
Data Stack size : 128  
\*\*\*\*\*  
\*\*\*\*\*/

```
#include <mega16.h>  
#include <stdio.h>
```

```
#asm  
.equ __lcd_port=0x15 ;  
#endasm  
#include <lcd.h>  
#include <delay.h>  
#include <stdlib.h>
```

```
unsigned char kata[16];  
int data,x;  
float sensor;
```

```
#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;  
}
```

```
void main(void)  
{  
ADMUX=ADC_VREF_TYPE & 0xff;  
ADCSRA=0x84;  
SFIOR&=0xEF;
```

```
lcd_init(16);
```

```
while (1)  
{  
data = read_adc(0);  
  
sensor = ((float)data*0.1); //Rubah  
kecelcius  
ftoa(sensor,2,kata);  
  
lcd_gotoxy(2,0);  
lcd_putsf("Sensor = ");  
  
lcd_gotoxy(10,0);  
lcd_puts(kata);  
  
lcd_gotoxy(14,0);  
//lcd_putchar(0xdf);//menampilkan  
karakter derajat  
lcd_putsf("%");
```

```
    delay_ms(10);
    if(sensor>10)
    {
        PORTB.0=1;
        lcd_gotoxy(2,1);
        lcd_putsf("Pompa ON ");
    }
    if(sensor<10)
    {
        PORTB.0=0;
        lcd_gotoxy(2,1);
        lcd_putsf("Pompa OFF");
    }
};
}
```