LAMPIRAN A
FOTO ROBOT DALAM AIR
LAMPIRAN B
PROGRAM PADA PENGONTROL
ATMEGA16
#include <mega16.h>
#include <delay.h>
#include <stdio.h>
#include <scankeypadB.h>

unsigned char text[32];
unsigned int temp, pilihan;

// I2C Bus functions
#asm
 .equ __i2c_port=0x1B ;PORTA
 .equ __sda_bit=0
 .equ __scl_bit=1
#endasm
#include <i2c.h>

// Alphanumeric LCD Module functions
#asm
.equ __lcd_port=0x15 ;PORTC
#endasm

#include <lcd.h>

// Declare your global variables here

float data1, data2;

float temp=((float)data1*256+data2)/10;

void tenggelam(void)
{
    kompas();
    if (kompas>90)PORTD.2=1;
}

void main(void)
{
    // Declare your local variables here

    // Input/Output Ports initialization
    // Port A initialization
    // Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
    // State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
    PORTA=0x00;
    DDRA=0x00;

    // Port B initialization
    // Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
    // State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
    PORTB=0x00;
    DDRB=0x00;

    // Port C initialization
    // Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
    // State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
    PORTC=0x00;
    DDRC=0x00;

    // Port D initialization
    // Func7=Out Func6=Out Func5=Out Func4=Out Func3=Out Func2=Out Func1=Out Func0=Out
    // State7=0 State6=0 State5=0 State4=0 State3=0 State2=0 State1=0 State0=0
    PORTD=0x00;
    DDRD=0xFF;
// Timer/Counter 0 initialization
// Clock source: System Clock
// Clock value: Timer 0 Stopped
// Mode: Normal top=FFh
// OC0 output: Disconnected
TCCR0=0x00;
TCNT0=0x00;
OCR0=0x00;

// Timer/Counter 1 initialization
// Clock source: System Clock
// Clock value: Timer 1 Stopped
// Mode: Normal top=FFFFh
// OC1A output: Discon.
// OC1B output: Discon.
// Noise Canceler: Off
// Input Capture on Falling Edge
// Timer 1 Overflow Interrupt: Off
// Input Capture Interrupt: Off
// Compare A Match Interrupt: Off
// Compare B Match Interrupt: Off
TCCR1A=0x00;
TCCR1B=0x00;
TCNT1H=0x00;
TCNT1L=0x00;
ICR1H=0x00;
ICR1L=0x00;
OCR1AH=0x00;
OCR1AL=0x00;
OCR1BH=0x00;
OCR1BL=0x00;

// Timer/Counter 2 initialization
// Clock source: System Clock
// Clock value: Timer 2 Stopped
// Mode: Normal top=FFh
// OC2 output: Disconnected
ASSR=0x00;
TCCR2=0x00;
TCNT2=0x00;
OCR2=0x00;

// External Interrupt(s) initialization
// INT0: Off
// INT1: Off
// INT2: Off
MCUCR=0x00;
MCUCSR=0x00;

// Timer(s)/Counter(s) Interrupt(s) initialization
TIMSK=0x00;

// Analog Comparator initialization
// Analog Comparator: Off
// Analog Comparator Input Capture by Timer/Counter 1: Off
ACSR=0x80;
SFIOR=0x00;

// I2C Bus initialization
i2c_init();

// LCD module initialization
lcd_init(16);
lcd_putsf("loading1...");
delay_ms(1000);
lcd_clear();
while (1)
{
   kompas();
   if(scan_keypadB()!=0)
   pilihan=scan_keypadB();

   kompas();
   sprintf(text,"kompas:%d",temp);
lcd_puts(text);
delay_ms(100);
lcd_clear();

   if(scan_keypadB()!=0)
   pilihan=scan_keypadB();

   sprintf(text,"kompas:%d\n\npilihan=%d",temp);
lcd_puts(text);
lcd_putchar(pilihan);
n=keytonum();
switch (pilihan)
{
    case '1':
        // PORTD.0=1;
        // delay_ms(1000);
        if(temp>4 && temp<180)
            PORTD=0x05;
        else if(temp>=180 && temp<356)PORTD=0x03;
        else PORTD=0x07;
        sprintf(text,"kompas:%d",temp);
        lcd_puts(text);
        delay_ms(5000);
        lcd_clear();
        PORTD=0x00;
        break;

    case '2':
        // PORTD.0=1;
        // delay_ms(1000);
        if(temp>94 && temp<270)
            PORTD=0x05;
        else if((temp>=270 && temp<359.9) || (temp>0 && temp<86)) PORTD=0x03;
        else PORTD=0x07;
        sprintf(text,"kompas:%d",temp);
        lcd_puts(text);
        delay_ms(5000);
        lcd_clear();
        PORTD=0x00;
        break;

    case '3':
        // PORTD.0=1;
        // delay_ms(1000);
        if(temp>184 && temp<359.9)
            PORTD=0x05;
        else if(temp>=0 && temp<176)PORTD=0x03;
        else PORTD=0x07;
        sprintf(text,"kompas:%d",temp);
        lcd_puts(text);
        delay_ms(5000);
        break;
}

if(temp>184 && temp<359.9)
    PORTD=0x05;
else if(temp>=0 && temp<176)PORTD=0x03;
else PORTD=0x07;
sprintf(text,"kompas:%d",temp);
lcd_puts(text);
delay_ms(5000);
lcd_clear();
PORTD=0x00;
break;

case '4':
    // PORTD.0=1;
    // delay_ms(1000);

    if((temp>=274 && temp<359.9)|| (temp>0 && temp<90))
        PORTD=0x05;
    else if(temp>=90 && temp<266) PORTD=0x03;
    else PORTD=0x07;
    sprintf(text,"kompas:%d",temp);
    lcd_puts(text);
    delay_ms(5000);
    lcd_clear();
    PORTD=0x00;
    break;

case '5':
    PORTD=0x03;
    delay_ms(5000);
    break;

case '6':
    PORTD=0x00;
    delay_ms(5000);
    break;

case '9': PORTD=0x01;break;

};

delay_ms(100);
lcd_clear();

// case 4:
//    PORTD.0=1;
//    delay_ms(2000);
//    sprintf(text,"kompas:%d",temp);
//    lcd_puts(text);
// kompas();
// if(temp>195 && temp<64) PORTD=0x05;
// else if(temp>64 && temp<190) PORTD=0x03;
// PORTD=0x07;
// delay_ms(5000);
// lcd_clear();
// PORTD=0x00;
// break;
// case 5:
// PORTD.0=1;
// delay_ms(2000);
// sprintf(text,"kompas:\%d",temp);
// lcd_puts(text);
// kompas();
// if(temp>3 && temp<128)
// PORTD=0x05;
// else if(temp>128 && temp<252) PORTD=0x03;
// else PORTD=0x07;
// delay_ms(500);
// lcd_clear();
// PORTD=0x00;
// break;
// case 6:
// PORTD.0=1;
// delay_ms(2000);
// sprintf(text,"kompas:\%d",temp);
// lcd_puts(text);
// kompas();
// if(temp>67 && temp<192) PORTD=0x05;
// else if(temp>192 && temp<61) PORTD=0x03;
// PORTD=0x07;
// delay_ms(500);
// lcd_clear();
// PORTD=0x00;
// break;
// case 7:
// PORTD.0=1;
// delay_ms(2000);
// sprintf(text,"kompas:\%d",temp);
// lcd_puts(text);
// kompas();
// if(temp>131 && temp<254) PORTD=0x05;
// else if(temp>254 && temp<125) PORTD=0x03;
// PORTD=0x07;
// delay_ms(500);
LAMPIRAN C
DATASHEET

Sensor Kompas (CMPS03).................................................................................. C-1