#pragma config FOSC = HS

#pragma config PWRTE = OFF

#pragma config WDTE = OFF

#pragma config CP = OFF

#pragma config BOREN = OFF

#pragma config LVP = OFF

#pragma config CPD = OFF

#pragma config WRT = OFF

#pragma config DEBUG = OFF

#include <xc.h>

#define \_XTAL\_FREQ 20000000

void led\_init(void);

void adc\_init(void);

unsigned int adc(unsigned char);

void main(void) {

led\_init();

adc\_init();

while(1){

unsigned int adca[4];

for(unsigned char i = 0;i<4;i++){

adca[i]=adc(i);

\_\_delay\_ms(5);

}

for(unsigned char i=0;i<4;i++){

if(adca[i]>500){

PORTB |= (1<<i);

\_\_delay\_ms(1000);

PORTB &= ~(1<<i);

\_\_delay\_ms(1000);

}else if(adca[i]>300){

PORTB |= (1<<i);

}else{

PORTB &= ~(1<<i);

}

}

}

}

void adc\_init(){

TRISA = 0x0F;

ADCON0 = 0x41;

ADCON1 = 0x80;

}

void led\_init(){

TRISB = 0x00;

PORTB = 0x00;

}

unsigned int adc(unsigned char ch){

unsigned int adcvalue;

ADCON0 &= 0xC7;

ADCON0 |= (ch << 3);

\_\_delay\_ms(2);

ADCON0bits.GO\_nDONE = 1;

while(ADCON0bits.GO\_nDONE);

adcvalue = (ADRESH << 8) | ADRESL;

return adcvalue;

}