program banda

'////////////////////////////////////////////////////////////////////////////////

' VARIABLE PARA EL USO DE LOS SERVOS

dim Servo as byte

dim Salidas as word

dim Index as word

dim Paso as byte

'dim Tiempo as word

'dim flanco as byte

dim MaskPort as word

dim n\_servo as word

'////////////////////////////////////////////////////////////////////////////////

dim analogico as byte

dim temperatura as word

dim muestras as byte

dim temp\_ac as word

dim temp\_prom as word

dim txt as string[4]

'dim distancia as word

'dim i as byte

'dim cadena as char[16]

dim temp\_var as word

'dim angulo as byte

'dim velocidad\_1 as byte

'dim direccion\_1 as byte

'dim velocidad\_2 as byte

'dim direccion\_2 as byte

'dim distancia\_v as byte

'///////////////////////////////////////////////////////////////////////////////

' VARIABLES COMUNICACION USART

dim received\_byte as byte

dim viajero\_uart as byte

dim usart\_receive as byte

'dim inicio\_usart as byte ' 0xAB

'dim ide\_usart as byte ' 0XBC

'dim end\_usart as byte ' 0XCD

''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''

'dim termino as byte

dim intensidad as byte

''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''

'dim index\_usart as byte

'dim pos\_usart as byte

'////////////////////////////////////////////////////////////////////////////////

'////////////////////////////////////////////////////////////////////////////////

sub procedure interrupt

if TestBit(PIR1,TMR1IF)=1 then

if Paso=0 then

MaskPort= (salidas and n\_servo)

PORTB.3 = MaskPort.0

Paso=1

TMR1L=0x6A

TMR1H=0XFF

else '65086 1.8ms

'65361 0.3ms

if Paso=1 then

temp\_var= 65148 + Servo + (Servo/2)

TMR1L= lo(temp\_var)

TMR1H= hi(temp\_var)

Paso=2

else

PORTB.3=0

temp\_var= 65530 - Servo - (Servo/2)

TMR1L= lo(temp\_var)

TMR1H= hi(temp\_var)

n\_servo=n\_servo<<1

if n\_servo=0x0200 then

n\_servo=1

end if

paso=0

end if

end if

ClearBit(PIR1,TMR1IF)

end if

if( PIR1.RCIF = 1 )then

usart\_receive = UART1\_Read()

select case viajero\_uart

case 1

if 0xb7 = usart\_receive then

viajero\_uart = 2

porta = usart\_receive

else

viajero\_uart = 1

end if

case 2

intensidad = usart\_receive

viajero\_uart = 1

end select

ClearBit(PIR1,RCIF) ' Si el dato a llegado limpio la bandera de recepcion

SetBit(PIE1,RCIE) ' Habilitar nuevamente la interrupcion por USART

end if

if(INTCON.INTF=1)then

if(intensidad <> 0)then

PORTB.5=0

Tmr0 = intensidad

Setbit(INTCON,T0IE)

else

PORTB.5=0

end if

Clearbit(INTCON,INTF)

Setbit(INTCON,INTE)

end if

if(INTCON.T0IF =1)then

PORTB.5=1

Clearbit(INTCON,T0IF)

Clearbit(INTCON,T0IE)

end if

end sub

sub procedure led

porta = 0x00

delay\_ms(250)

porta = 0xff

delay\_ms(250)

porta = 0x00

delay\_ms(250)

porta = 0xff

delay\_ms(250)

porta = 0x00

end sub

main:

OSCCON = %01110101

OPTION\_REG=%11000101

INTCON = %11010000

PIE1 = %00000000

TRISA= %00000000

TRISB= %00010001

TRISC= %10000000

ANSEL= %00000000

ANSELH= %00001000

'''''''''''''''''''''''''''''''''''''''''''

' Servo motor

Servo = 0x80

T1CON = %00110001

PIE1 = PIE1 OR %00000001

TMR1L = 0xFF

TMR1H = 0xFF

paso = 0

Salidas = 0xffff

n\_servo = 0x0001

'''''''''''''''''''''''''''''''''''''''''''

' bonbillo

'''''''''''''''''''''''''''''''''''''''''''

' usart rs232

PIE1 = PIE1 or %00100000

PIR1 = %00000000

UART1\_Init(9600)

'''''''''''''''''''''''''''''''''''''''''''

PORTA= %00000000

PORTB= %00000000

PORTC= %00000000

TMR0 = 0X00

Servo = 0x00

' inicio\_usart = 0xAA

' ide\_usart = 0XB7

' end\_usart = 0XDD

' termino = 0

intensidad=5

muestras=0

temp\_ac=0

temp\_prom=0

viajero\_uart = 1

led()

while true

' porta=255

' delay\_ms(200)

' porta=0

' delay\_ms(200)

for muestras=1 to 64

analogico = Adc\_Read(11)

temperatura=analogico '\*100/230) ''

Delay\_ms(2)

temp\_ac= temp\_ac + temperatura

next muestras

temp\_prom = (temp\_ac /64)

Uart1\_Write(0xb7)

'WordToStr(temperatura, txt)

Uart1\_Write(lo(temp\_prom))

' Uart1\_Write(Servo)

muestras=0

temp\_ac=0

temp\_prom=0

Delay\_ms(200)

wend

end.



