program banda

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

' VARIABLE PARA EL USO DE LOS SERVOS

dim Servo as byte[8]

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 word

dim rx\_analogico as word

dim temperatura as word

dim muestras as byte

dim temp\_ac as word

dim temp\_prom as word

dim txt as string[4]

dim temperatura\_1 as word

dim temperatura\_2 as word

dim temperatura\_3 as word

'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.5 = MaskPort.0

PORTB.0 = MaskPort.1

Paso=1

' TMR1L=0x6A

' TMR1H=0XFF

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

TMR1L=0x1F

TMR1H=0XFF

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

else '65086 1.8ms

'65361 0.3ms

if Paso=1 then

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

temp\_var= 65276 + Servo[index]

TMR1L= lo(temp\_var)

TMR1H= hi(temp\_var)

Paso=2

else

PORTB.5=0

PORTB.0=0

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

temp\_var= 65530 - Servo[index]

TMR1L= lo(temp\_var)

TMR1H= hi(temp\_var)

inc(index)

n\_servo=n\_servo<<1

if n\_servo=0x0400 then

n\_servo=1

Index=0

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

Servo[0] = usart\_receive

viajero\_uart = 3

case 3

Servo[1] = 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

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=%01000101

INTCON = %11000000

PIE1 = %00000000

TRISA= %00000001

TRISB= %00011000

TRISC= %10000000

ANSEL= %00000001

ANSELH= %00001010

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

' Servo motor

Servo[0] = 0x80

Servo[1] = 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

intensidad=5

muestras=0

temp\_ac=0

temp\_prom=0

viajero\_uart = 1

led()

while true

temp\_ac = 0

temp\_prom = 0

temperatura\_2 = 0

temperatura\_3 = 0

for muestras=1 to 64

analogico = Adc\_Read(11)

temperatura\_1 = Adc\_Read(9)

temperatura\_2 = temperatura\_2 + temperatura\_1

temp\_ac = temp\_ac + analogico

next muestras

temperatura\_3 = (temperatura\_2/64)

temp\_prom = (temp\_ac/64)

temperatura\_3 = (temperatura\_3)/2.3

UART1\_Write\_text("p")

WordToStr(temp\_prom>>2,txt)

UART1\_Write\_text(txt)

UART1\_Write\_text("t")

WordToStr(temperatura\_3,txt)

UART1\_Write\_text(txt)

Delay\_ms(200)

wend

end.