program robot\_aplicacion\_seguidor\_linea

SYMBOL DIR1= PORTA.2

SYMBOL NDIR1=PORTA.4

SYMBOL DIR2= PORTA.3

SYMBOL NDIR2=PORTA.5

SYMBOL S1=PORTA.6

SYMBOL S2=PORTA.7

DIM DATO,sensores AS BYTE

sub procedure AVANZAR()

PORTA.RA2 = 0

PORTA.RA4 = 1

PORTA.RA3 = 1

PORTA.RA5 = 0

PWM1\_Set\_Duty(200)

PWM2\_Set\_Duty(200)

end sub

sub procedure RETRO()

PORTA.RA2 = 1

PORTA.RA4 = 0

PORTA.RA3 = 0

PORTA.RA5 = 1

PWM1\_Set\_Duty(200)

PWM2\_Set\_Duty(200)

end sub

sub procedure GIRO\_DERECHA()

PORTA.RA2 = 0

PORTA.RA4 = 1

PORTA.RA3 = 0

PORTA.RA5 = 1

PWM1\_Set\_Duty(200)

PWM2\_Set\_Duty(200)

end sub

sub procedure GIRO\_IZQUIERDA()

PORTA.RA2 = 1

PORTA.RA4 = 0

PORTA.RA3 = 1

PORTA.RA5 = 0

PWM1\_Set\_Duty(200)

PWM2\_Set\_Duty(200)

end sub

sub procedure DETENER()

PORTA.RA2 = 0

PORTA.RA4 = 0

PORTA.RA3 = 0

PORTA.RA5 = 0

PWM1\_Set\_Duty(0)

PWM2\_Set\_Duty(0)

end sub

sub procedure ADELANTE\_IZQUIERDA()

PORTA.RA2 = 0

PORTA.RA4 = 1

PORTA.RA3 = 1

PORTA.RA5 = 0

PWM1\_Set\_Duty(250)

PWM2\_Set\_Duty(150)

Delay\_ms(200)

end sub

sub procedure ADELANTE\_DERECHA()

PORTA.RA2 = 0

PORTA.RA4 = 1

PORTA.RA3 = 1

PORTA.RA5 = 0

PWM1\_Set\_Duty(150)

PWM2\_Set\_Duty(250)

Delay\_ms(200)

end sub

main:

OPTION\_REG=0X86

OSCCON = 0X75

PORTA = %00000000

TRISA = %00000011

PORTB = %00000000

TRISB = %00000000

PORTC = %10000000

TRISC = %10000000

ANSEL = %00000000

ANSELH = %00010000

PWM1\_Init(1000)

PWM2\_Init(1000)

PWM1\_Start()

PWM2\_Start()

UART1\_Init(9600)

while 1

if UART1\_Data\_Ready then

DATO = UART1\_Read

end if

if DATO = "1" then

AVANZAR

end if

if DATO = "2" then

DETENER

end if

if DATO = "3" then

RETRO

end if

if DATO = "4" then

GIRO\_IZQUIERDA

end if

if DATO = "5" then

GIRO\_DERECHA

end if

if DATO = "6" then

WHILE 1

sensores=(S2\*2)+(S1\*1)

select case sensores

case 0

AVANZAR

Delay\_10ms

case 1

GIRO\_IZQUIERDA

Delay\_10ms

case 2

GIRO\_DERECHA

Delay\_10ms

case 3

AVANZAR

Delay\_10ms

end select

WEND

end if

wend

end.