LAMPIRAN A

FOTO ROBOT MOBIL HOLONOMIC
LAMPIRAN B

PROGRAM PADA PENGONTROL MIKRO

OOPic-R
PROGRAM UTAMA

Dim A As New oKeypad
Dim BB2 As New oDIO1
Dim BB3 As New oDIO1
Dim data1 As New oByte
Dim data2 As New oByte
Dim data4 As New oWord
Dim data5 As New oWord
Dim data3 As New oByte
Dim input As New oWord
Dim Compass As New oI2C
Dim Bearing As New oByte
Dim a1 As New oByte
Dim b1 As New oByte
Dim vx As New oByte
Dim vy As New oByte
Dim omega1 As New oWord
Dim omega2 As New oWord
Dim omega3 As New oWord
Dim bx As New oWord
Dim by As New oWord
Dim s1 As New oWord
Dim s2 As New oWord
Dim s3 As New oWord
Dim serv1 As New oServoSP1
Dim serv2 As New oServoSP1
Dim serv3 As New oServoSP1
Dim count As New oWord

Sub Main()
    BB2.IOLine = 6
    BB2.Direction = cvOutput
    BB3.IOLine = 5
    BB3.Direction = cvOutput
    Call keyinput1
    serv1.IOLine = 1
    serv1.Operate = cvTrue
    serv1.InvertOut = cvTrue
    serv2.IOLine = 2
    serv2.Operate = cvTrue
    serv2.InvertOut = cvTrue
    serv3.IOLine = 3
    serv3.Operate = cvTrue
    serv3.InvertOut = cvTrue
    For count.Value = 0 To 16
        input.Signed = 1
        vx.Signed = 1
        vy.Signed = 1
        a1.Signed = 1
        b1.Signed = 1
        bx.Signed = 1
        by.Signed = 1
        omega1.Signed = 1
        omega2.Signed = 1
        omega3.Signed = 1
    Next count
s1.Signed = 1
s2.Signed = 1
s3.Signed = 1
data4.Signed = 1
data5.Signed = 1
vx = 0
vy = 0
bx = 0
by = 0
a1 = 0
b1 = 0
input = 0
omega1 = 0
omega2 = 0
omega3 = 0
s1 = 0
s2 = 0
s3 = 0

call init

If input > 256 Then
    input = input - 256
EndIf

If input > 256 Then
    input = input - 256
EndIf

If input > 256 Then
    input = input - 256
EndIf

a1 = Sin (input)
b1 = Cos (input)

'kuadran I
If input < 64 Then
    vx = b1 * 100 / 127
    vy = a1 * 100 / 127
'kuadran II
ElseIf input < 128 Then
    vx = (255 - b1)
    vx = vx * 100 / 127
    vy = a1 * 100 / 127
    vy = Not (vy) + 1
'kuadran III
ElseIf input < 192 Then
    vx = (255 - b1)
    vx = vx * 100 / 127
    vx = Not (vx) + 1
    vy = (255 - a1)
    vy = vy * 100 / 127
    vy = Not (vy) + 1
'kuadran IV
Else
    vx = b1 * 100 / 127
    vx = Not (vx) + 1
vy = (255 - a1)  
vy = vy * 100 / 127  
EndIf

bx = 50 * vx  
by = 86 * vy

omega1 = -1 * vx  
omega2 = (bx - by) / 100  
omega3 = (bx + by) / 100

s1 = (omega1 / 5) + 70  
s2 = (omega2 / 5) + 70  
s3 = (omega3 / 5) + 70

serv1 = s1  
serv2 = s2  
serv3 = s3

ooPIC.Delay = 100
Next count.Value
   serv1.Speed = 0  
serv2.Speed = 0  
serv3.Speed = 0  
BB3.Value = 0  
count = 0
   Call Main
End Sub

Sub init()
   Compass.Node = 96  
   Compass.Mode = cv10Bit  
   Compass.NoInc = 1  
   Compass.Location = 1  
   Compass.Width = cv8Bit  
   Bearing = Compass.Value
   input = 256 - Bearing + data5
End Sub

Sub sini()
   BB2.Clear  
   BB3.Value = 1  
   data5 = data4 * 32 / 45
End Sub

Sub keyinput1()
   A.Mode = 1  
   A.Operate = 1  
   BB2.Value = 1  
   data1 = 0
   Do
      data1 = A.Key
   Loop Until A.Received = 1
   data1 = A.Key  
   data1 = A.Key  
   A.Operate = 0  
   BB2.Clear
ooPIC.Delay = 100

Call keyinput2
End Sub

Sub keyinput2()
A.Mode = 1
A.Operate = 1
BB2.Value = 1
data2 = 0

Do
    data2 = A.Key
    Loop Until A.Received = 1
data2 = A.Key
data2 = A.Key
A.Operate = 0
BB2.Clear
ooPIC.Delay = 100

    If (data2 == 14) Then
        data4 = data1
        Call sini
    Else
        data4 = (data1 * 10) + data2
        Call keyinput3
    End If
End Sub

Sub keyinput3()
A.Mode = 1
A.Operate = 1
BB2.Value = 1
data3 = 0

Do
    data3 = A.Key
    Loop Until A.Received = 1
data3 = A.Key
data3 = A.Key
A.Operate = 0
BB2.Clear
ooPIC.Delay = 100

    If (data3 == 14) Then
        data4 = (data1 * 10) + data2
    Else
        data4 = (data1 * 100) + (data2 * 10) + data3
    End If

Call sini
End Sub