**Arduino e visual basic**

**Codice VB per far accendere o spegne due led**

Imports System.IO

Imports System.IO.Ports

Imports System.Threading

Public Class Form1

Shared \_continue As Boolean

Shared \_serialPort As SerialPort

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

SerialPort1.Close()

Attenzione alla scelta della porta com. Inserire prima la seriale per vedere su quale porta il pc sta comunicando. Dopo ciò si può correggere il codice in vb mettendo la porta opportuna

SerialPort1.PortName = "com7"

SerialPort1.BaudRate = 9600

SerialPort1.DataBits = 8

SerialPort1.Parity = Parity.None

SerialPort1.StopBits = StopBits.One

SerialPort1.Handshake = Handshake.None

SerialPort1.Encoding = System.Text.Encoding.Default

End Sub

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

SerialPort1.Open()

SerialPort1.Write("0")

SerialPort1.Close()

End Sub

Private Sub Button2\_Click(sender As Object, e As EventArgs) Handles Button2.Click

SerialPort1.Open()

SerialPort1.Write("1")

SerialPort1.Close()

End Sub

Private Sub Button3\_Click(sender As Object, e As EventArgs) Handles Button3.Click

SerialPort1.Open()

SerialPort1.Write("2")

SerialPort1.Close()

End Sub

Private Sub Button4\_Click(sender As Object, e As EventArgs) Handles Button4.Click

SerialPort1.Open()

SerialPort1.Write("3")

SerialPort1.Close()

End Sub

Private Sub Button5\_Click(sender As Object, e As EventArgs) Handles Button5.Click

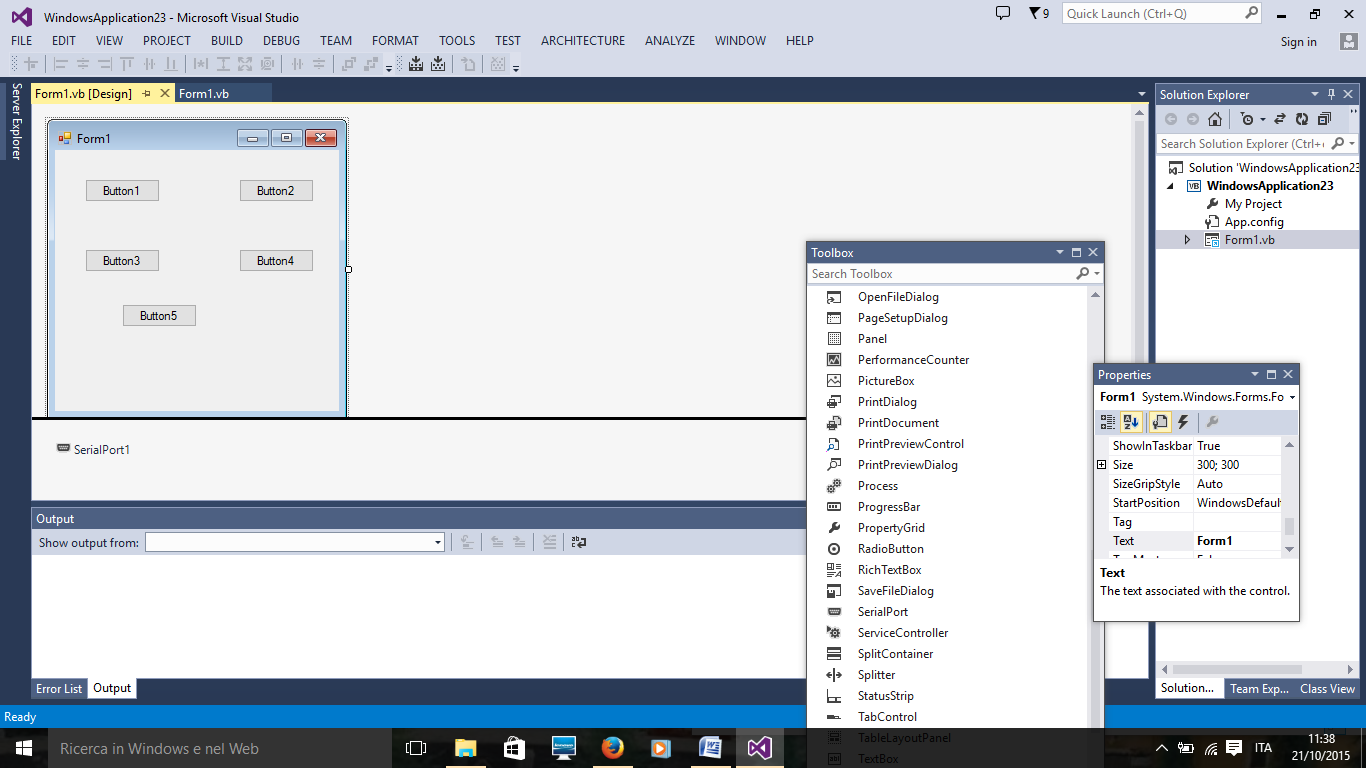
SerialPort1.Open()

SerialPort1.Write("4")

SerialPort1.Close()

End Sub

End Class



Attenzione ad inserire SerialPort1

**Codice Arduino**

void setup()

{

pinMode(4,OUTPUT);

pinMode(5,OUTPUT);

Serial.begin(9600);

}

void loop()

{

int comando;

if (Serial.available()){

delay(100);

while(Serial.available()>0){

comando=Serial.read();

if(comando=='0')

digitalWrite(4,LOW);

if(comando=='1')

digitalWrite(4,HIGH);

if(comando=='2')

digitalWrite(5,LOW);

if(comando=='3')

digitalWrite(5,HIGH);

if (comando=='4'){digitalWrite(4,LOW);

digitalWrite(5,LOW);

}

}

}

}

Imports Microsoft.Office.Interop.Excel

Public Class Form1

Dim ora(24) As String

Dim temperatura(24) As Decimal

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles Me.Load

SerialPort1.Close()

SerialPort1.PortName = "COM3"

SerialPort1.Open()

DataGridView1.ColumnCount = 1

DataGridView2.ColumnCount = 1

End Sub

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

SerialPort1.WriteLine("A")

Dim i As Integer

i = 0

Do While i <= 23

ora(i) = i + 1

DataGridView1.Rows.Add(ora(i))

i = i + 1

Loop

Dim j As Integer

j = 0

Do While j <= 23

temperatura(j) = SerialPort1.ReadLine

DataGridView2.Rows.Add(temperatura(j))

j = j + 1

Loop

Button2.Visible = True

End Sub

Private Sub Button2\_Click(sender As Object, e As EventArgs) Handles Button2.Click

Dim programma As Application

Dim cartella As Workbook

Dim foglio As Worksheet

Dim percorso As String

percorso = ("E:\VisualBasic\ArduinoExcel\Cartel3.xlsm")

programma = CreateObject("excel.application")

cartella = programma.Workbooks.Open(percorso)

programma.Visible = True

foglio = cartella.ActiveSheet

Dim rig As Integer

rig = 0

Do While rig <= 23

foglio.Cells(1, 1) = "Ora"

foglio.Cells(1, 2) = "Temperatura"

foglio.Cells(rig + 2, 1) = ora(rig)

foglio.Cells(rig + 2, 2) = temperatura(rig)

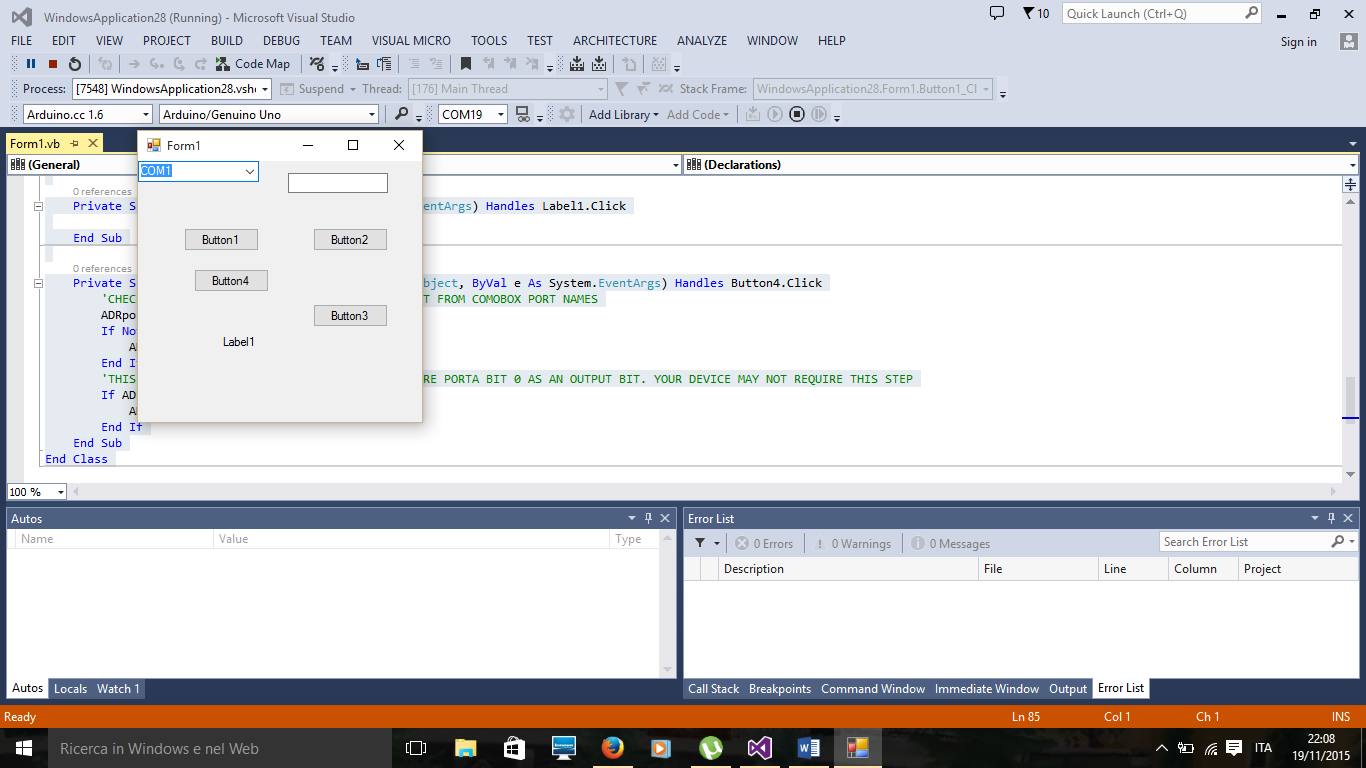
rig = rig + 1

Loop

End Sub

End Class

**III Progetto**



Imports System

Imports System.IO.Ports

Imports System.Threading

Public Class Form1

'DECLARE A COMM PORT

Dim WithEvents ADRport As SerialPort = New \_

System.IO.Ports.SerialPort("COM19")

' , \_9600, \_Parity.None, \_8, \_StopBits.One)

Private Sub Form1\_FormClosed(ByVal sender As Object, ByVal e As System.Windows.Forms.FormClosedEventArgs) Handles Me.FormClosed

'CHECK IF PORT IS OPEN AND THEN CLOSE COMM PORT

If ADRport.IsOpen Then

ADRport.Close()

End If

End Sub

Private Sub Form1\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

'CREATE 20 COM PORTS TO BE SELECTIONS IN PULL DOWN MENU

Dim PortCount As Integer

For PortCount = 1 To 20

ComboBox1.Items.Add("COM" & PortCount)

Next

'SET COMBO BOX TO COM 1 (DEFAULT)

ComboBox1.SelectedIndex = 0

End Sub

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

Try

'SEND "RDO" + CR OUT ON RS232 Port

ADRport.Write("RD0" + Chr(13))

'WAIT 20MS FOR COMMAND TO BE SENT

Thread.Sleep(20)

'SET READ TIMOUT FOR RS232 READ TO 100MS

ADRport.ReadTimeout = 100

'READ DATA FROM RS232 INPUT BUFFER UP TO THE NEXT CR ( CHR(13))

TextBox1.Text = (ADRport.ReadTo(Chr(13)))

Catch ex As TimeoutException

'IF THERE IS A TIMEOUT, PRINT" No Data " IN TEXTBOX1.TEXT

TextBox1.Text = "NoData"

'THE NEXT LINE ENABLES A SPLASH SCREEN WITH AN ERROR MESSAGE ( DELETE IF NOT DESIRED)

MsgBox(ex.Message)

End Try

End Sub

Private Sub Button2\_Click(sender As Object, e As EventArgs) Handles Button2.Click

'SEND "SETPA0" COMMAND TO ADR112 TO SET PORT A, bit 0

ADRport.Write("SETPA0" + Chr(13))

End Sub

Private Sub Button3\_Click(sender As Object, e As EventArgs) Handles Button3.Click

'SEND "RESPA0" COMMAND TO ADR112 TO RESET PORT A, bit 0

ADRport.Write("RESPA0" + Chr(13))

End Sub

Public Sub New()

' This call is required by the designer.

InitializeComponent()

' Add any initialization after the InitializeComponent() call.

End Sub

Private Sub Label1\_Click(sender As Object, e As EventArgs) Handles Label1.Click

End Sub

Private Sub Button4\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button4.Click

'CHECK IF PORT IS CLOSED AND THEN OPEN COM PORT FROM COMOBOX PORT NAMES

ADRport.PortName = ComboBox1.SelectedItem

If Not ADRport.IsOpen Then

ADRport.Open()

End If

'THIS SET IS REQUIRED BY THE ADR112 TO CONFIGURE PORTA BIT 0 AS AN OUTPUT BIT. YOUR DEVICE MAY NOT REQUIRE THIS STEP

If ADRport.IsOpen Then

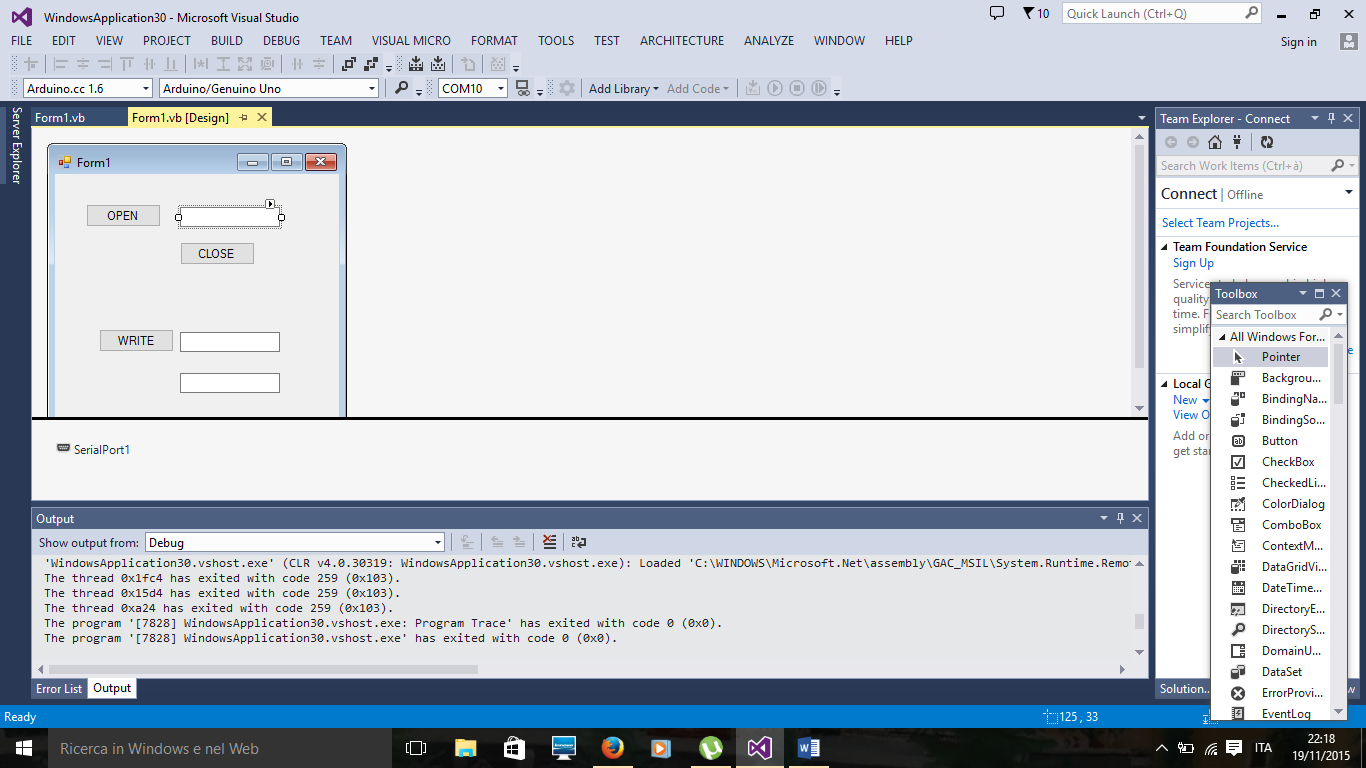
ADRport.Write("CPA11111110" + Chr(13))

End If

End Sub

End Class

**IV progetto**



Public Class Form1

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

SerialPort1.PortName = TextBox1.Text

SerialPort1.Open()

End Sub

Private Sub Button2\_Click(sender As Object, e As EventArgs) Handles Button2.Click

If SerialPort1.IsOpen = True Then

SerialPort1.Close()

End If

End Sub

Private Sub Button3\_Click(sender As Object, e As EventArgs) Handles Button3.Click

If TextBox2.Text.Length = 0 Then ' Error if there is no send data

MessageBox.Show("String input error")

', MessageBoxButtons.OK, MessageBoxIcon.Error)

Exit Sub ' Break out of processing

End If

Try

SerialPort1.WriteLine(TextBox2.Text) ' Write data to the send buffer

Catch ex As Exception ' Exception handling

MessageBox.Show(ex.Message, "Error", MessageBoxButtons.OK, MessageBoxIcon.Error)

End Try

End Sub

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

End Sub

'Declare a delegate

Delegate Sub DataDelegate(ByVal sdata As String)

'Define the method (function) that will be called by the Invoke method

Private Sub PrintData(ByVal sdata As String)

TextBox3.Text = sdata

End Sub

Private Sub SerialPort1\_DataReceived() ' : Code the processing when the data received event occurs

Dim ReceivedData As String = " " ' Declare variable for received data

Try

ReceivedData = SerialPort1.ReadLine ' Receive the data

Catch ex As Exception

ReceivedData = ex.Message ' Exception handling

End Try

' Declare delegate to method to execute by Invoke method and display received data

Dim adre As New DataDelegate(AddressOf PrintData)

Me.Invoke(adre, ReceivedData)

End Sub

End Class