

Week6

การสื่อสารผ่านพอร์ตอนุกรม

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Threading;

namespace week6_rs232
{
    public partial class Form1 : Form
    {
        string str1;

        public Form1()
        {
            InitializeComponent();
            timer1.Start();
            serialPort1.Open();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            //serialPort1.Open();
            serialPort1.WriteLine(textBox2.Text);

            Thread.Sleep(500);
            int n = serialPort1.BytesToRead;
            if (n > 0)
            {
                str1 = serialPort1.ReadLine();

                textBox1.Text = str1;
            }
            // serialPort1.Close();
        }

        private void serialPort1_DataReceived(object sender,
        System.IO.Ports.SerialDataReceivedEventArgs e)
        {
            // str1 = serialPort1.ReadLine();
        }

        private void timer1_Tick(object sender, EventArgs e)
```

```

{
    serialPort1.WriteLine("3");

    Thread.Sleep(100);
    int n = serialPort1.BytesToRead;
    if (n > 0)
    {
        str1 = serialPort1.ReadLine();

        textBox1.Text = str1;
        if (str1 == "3a") sw1.BackColor = Color.Red;
        if (str1 == "3b") sw1.BackColor = Color.Gray;
    }
}

private void button2_Click(object sender, EventArgs e)
{
    // serialPort1.Open();
    serialPort1.WriteLine("1");

    Thread.Sleep(500);
    int n = serialPort1.BytesToRead;
    if (n > 0)
    {
        str1 = serialPort1.ReadLine();

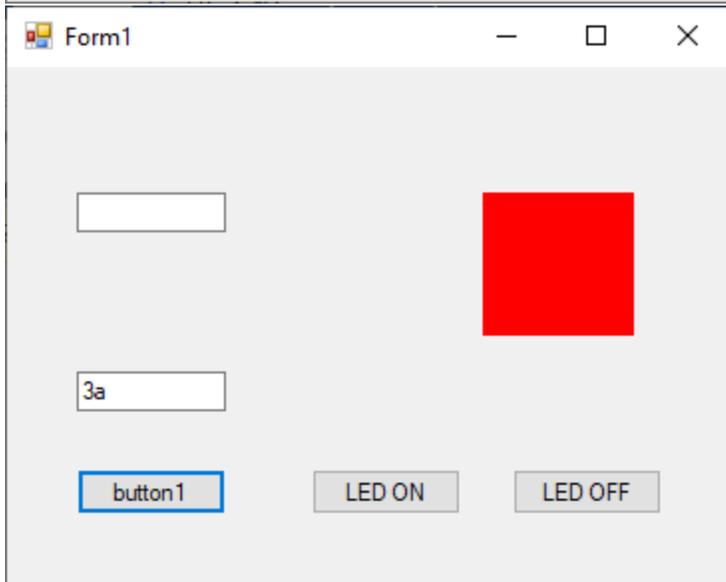
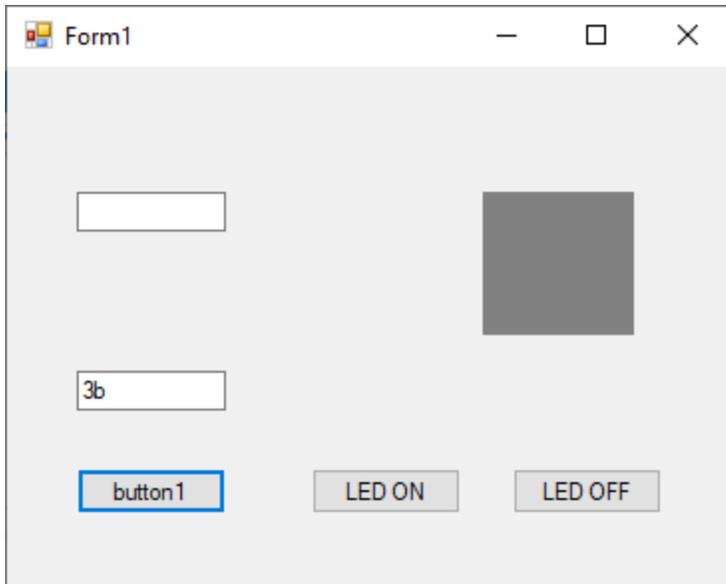
        textBox1.Text = str1;
    }
    // serialPort1.Close();
}

private void button3_Click(object sender, EventArgs e)
{
    // serialPort1.Open();
    serialPort1.WriteLine("0");

    Thread.Sleep(500);
    int n = serialPort1.BytesToRead;
    if (n > 0)
    {
        str1 = serialPort1.ReadLine();

        textBox1.Text = str1;
    }
    // serialPort1.Close();
}
}
}
}

```



```
void setup()
{
  Serial.begin(9600);
  pinMode(13,OUTPUT);
  pinMode(2,INPUT);
}
```

```
void loop()
{
  byte s;

  int n = Serial.available();

  if (n>0)
  {
    s = Serial.read();

    Serial.write(s);

    if(s=='1') digitalWrite(13,1);

    if(s=='0') digitalWrite(13,0);

    if(s=='3')

    if (digitalRead(2)==1)
    {
      Serial.write('a');
    }
    else
    {
```

```
Serial.write('b');
```

```
}
```

```
}
```

```
}
```