Week 6

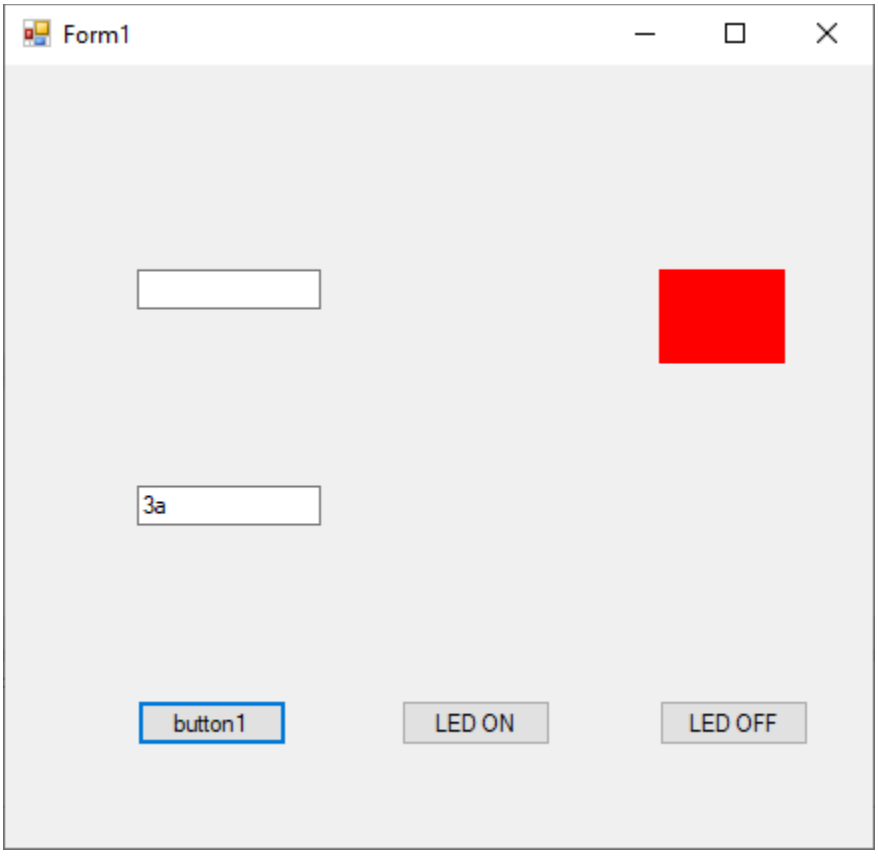
การสื่อสารผ่านพอร์ตอนุกรม

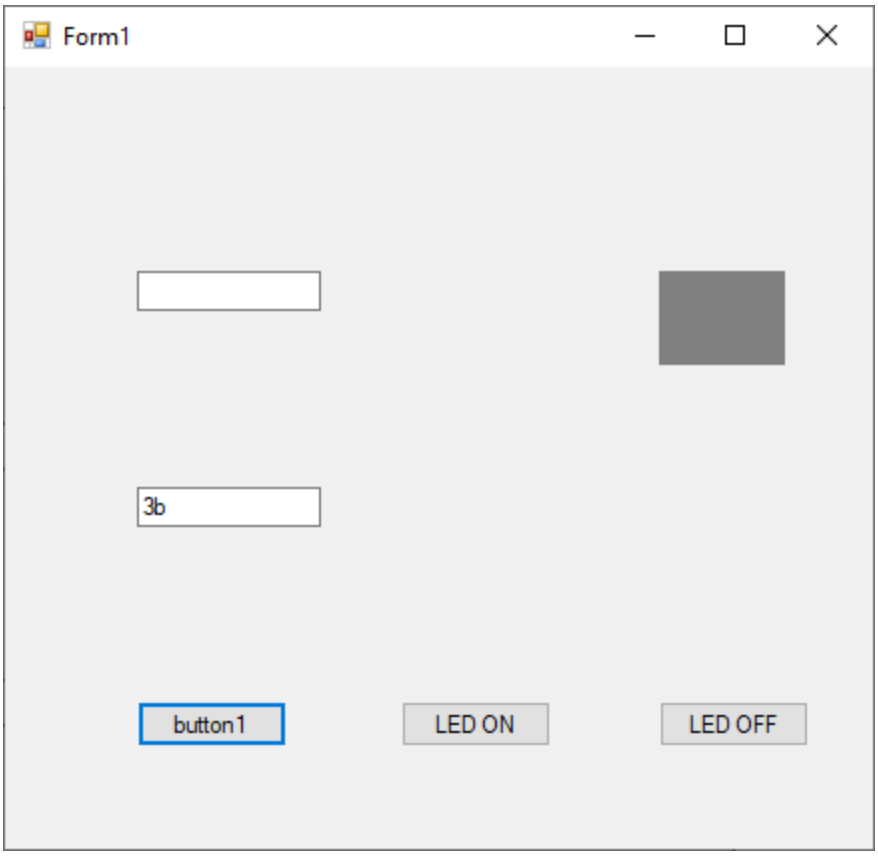
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Threading;

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(500);
            int n = serialPort1.BytesToRead;
            if (n > 0)
            {
```

```
            str1 = serialPort1.ReadLine();

            textBox1.Text = str1;
            if (str1 == "3a") sww1.BackColor = Color.Red;
            if (str1 == "3b") sww1.BackColor = Color.Gray;
        }
    }

    private void Form1_Load(object sender, EventArgs e)
    {

    }

    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');
   }
 }
}
```




Form1
3b
button1
LED ON
LED OFF