

Week7

การสื่อสารด้าน photocal

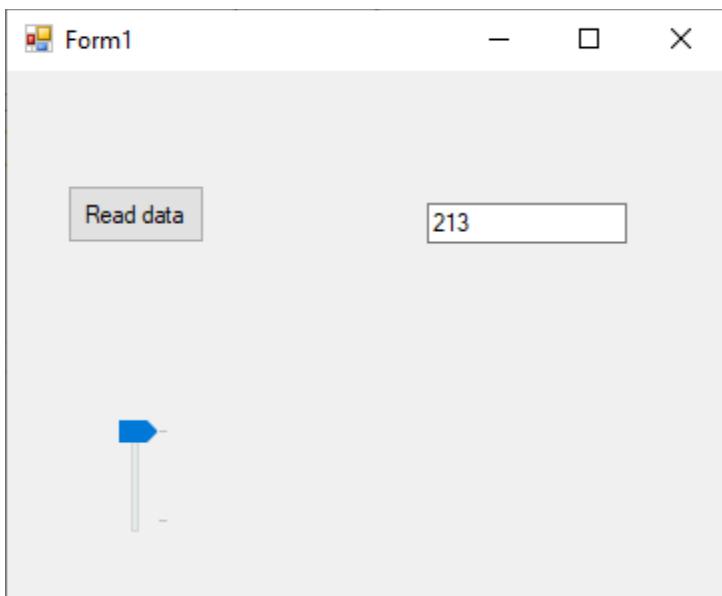
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Threading;

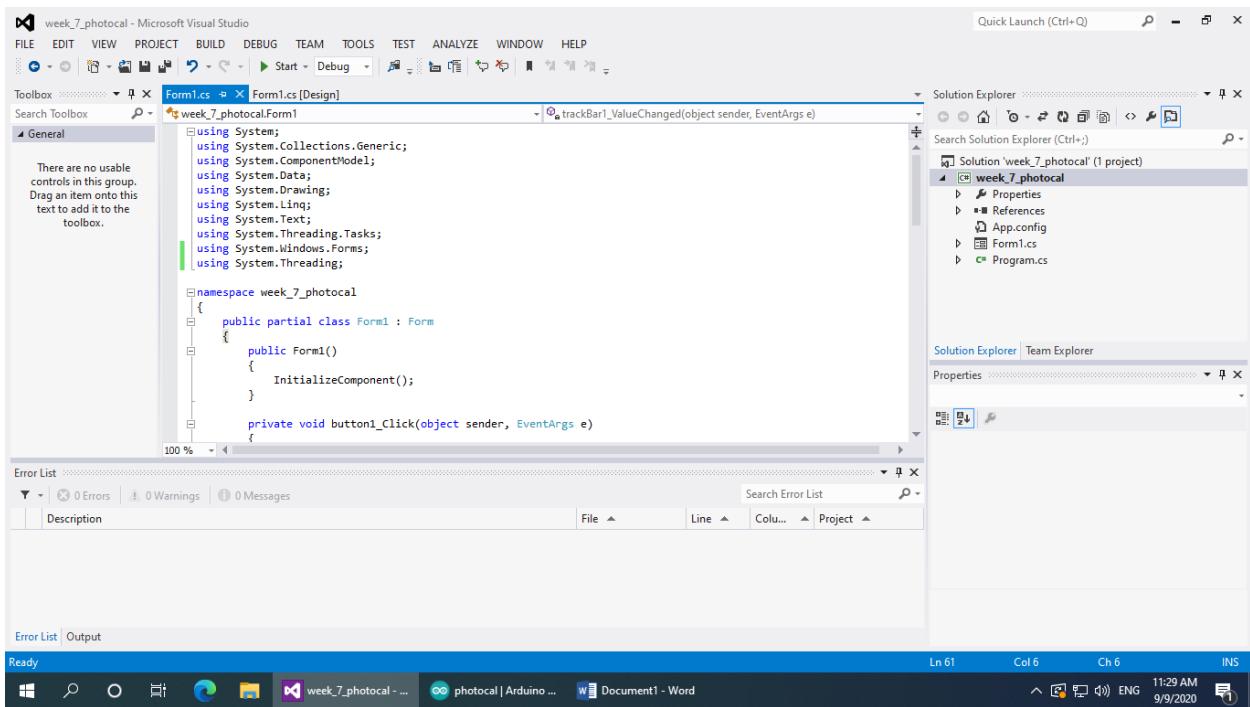
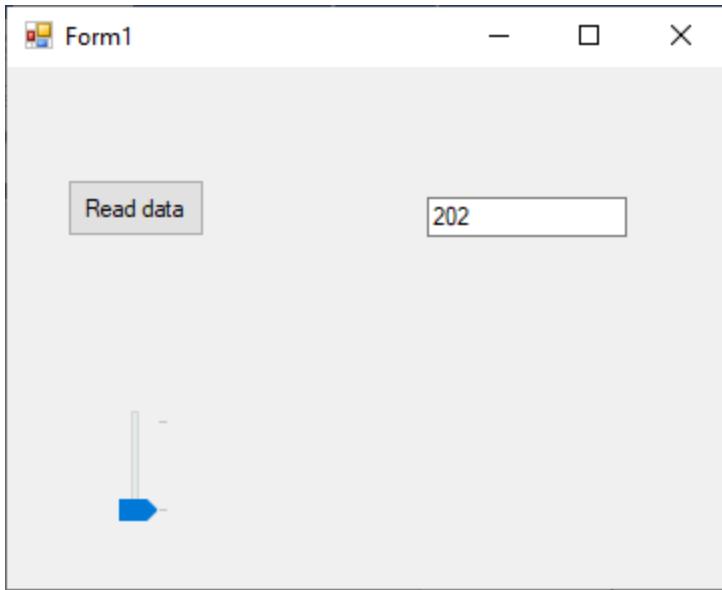
namespace week_7_photocal
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            serialPort1.Open();
            byte[] data = { 1,0,1};
            serialPort1.Write(data,0,3);
            Thread.Sleep(100);
            int n = serialPort1.BytesToRead;
            if (n >= 3)
            {
                byte[] rx_data = new byte[n];
                serialPort1.Read(rx_data,0,n);
                textBox1.Text = rx_data[0].ToString()
                    + rx_data[1].ToString()
                    + rx_data[2].ToString();
            }
            serialPort1.Close();
        }

        private void trackBar1_Scroll(object sender, EventArgs e)
        {
        }
    }
}
```

```
private void trackBar1_ValueChanged(object sender, EventArgs e)
{
    serialPort1.Open();
    byte[] data = { 2, (byte)trackBar1.Value, (byte)(2 +
trackBar1.Value) };
    serialPort1.Write(data, 0, 3);
    Thread.Sleep(100);
    int n = serialPort1.BytesToRead;
    if (n >= 3)
    {
        byte[] rx_data = new byte[n];
        serialPort1.Read(rx_data, 0, n);
        textBox1.Text = rx_data[0].ToString()
                      + rx_data[1].ToString()
                      + rx_data[2].ToString();
    }
    serialPort1.Close();
}
}
```





The screenshot shows the Microsoft Visual Studio interface with the project 'week_7_photocal' open. The code editor displays the 'Form1.cs [Design]' file, specifically the event handler for 'trackBar1_ValueChanged'. The code reads data from a serial port and updates a text box. The Solution Explorer shows the project structure with files like 'App.config', 'Form1.cs', and 'Program.cs'. The Error List shows 0 errors, 0 warnings, and 0 messages.

```
private void trackBar1_ValueChanged(object sender, EventArgs e)
{
    serialPort1.Open();
    byte[] data = { 1,0,1 };
    serialPort1.Write(data,0,3);
    Thread.Sleep(100);
    int n = serialPort1.BytesToRead;
    if (n >= 3)
    {
        byte[] rx_data = new byte[n];
        serialPort1.Read(rx_data,0,n);
        textBox1.Text = rx_data[0].ToString()
                      + rx_data[1].ToString()
                      + rx_data[2].ToString();
    }
    serialPort1.Close();
}
```

The screenshot shows the Microsoft Visual Studio interface with the project 'week_7_photocal' open. The code editor displays the 'Form1.cs [Design]' file, specifically the event handler for 'trackBar1_ValueChanged'. The code has been modified to read data starting from index 2 instead of 0. The Solution Explorer shows the project structure with files like 'App.config', 'Form1.cs', and 'Program.cs'. The Error List shows 0 errors, 0 warnings, and 0 messages.

```
private void trackBar1_ValueChanged(object sender, EventArgs e)
{
    serialPort1.Open();
    byte[] data = { 2, (byte)trackBar1.Value, (byte)(2 + trackBar1.Value) };
    serialPort1.Write(data, 0, 3);
    Thread.Sleep(100);
    int n = serialPort1.BytesToRead;
    if (n >= 3)
    {
        byte[] rx_data = new byte[n];
        serialPort1.Read(rx_data, 0, n);
        textBox1.Text = rx_data[0].ToString()
                      + rx_data[1].ToString()
                      + rx_data[2].ToString();
    }
    serialPort1.Close();
}
```

```

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

void loop()
{
    if(Serial.available()>2)
    {
        byte fn = Serial.read();
        byte data = Serial.read();
        byte sum = Serial.read();
        if(fn == 1)
        {
            data = digitalRead(2);
            Serial.write(1);
            Serial.write(data);
            Serial.write(1+data);

        }
        if(fn == 2)
        {
            if(data == 1) digitalWrite(13,1);
            else digitalWrite(13,0);
            Serial.write(2);
        }
    }
}
Done uploading.
Invalid library found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_aug20d: no headers files (.h) found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_aug20d
Invalid library found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep02a: no headers files (.h) found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep02a
Invalid library found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep03a: no headers files (.h) found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep03a
21 Arduino Uno on COM3
week_7_photocal - ... photocal | Arduino ... Document1 - Word 11:31 AM ENG 9/9/2020

```



```

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}

void loop()
{
    if(Serial.available()>2)
    {
        byte fn = Serial.read();
        byte data = Serial.read();
        byte sum = Serial.read();
        if(fn == 1)
        {
            data = digitalRead(2);
            Serial.write(1);
            Serial.write(data);
            Serial.write(1+data);

        }
        if(fn == 2)
        {
            if(data == 1) digitalWrite(13,1);
            else digitalWrite(13,0);
            Serial.write(2);
            Serial.write(data);
            Serial.write(2+data);
        }
        Serial.flush();
    }
}
Done uploading.
Invalid library found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_aug20d: no headers files (.h) found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_aug20d
Invalid library found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep02a: no headers files (.h) found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep02a
Invalid library found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep03a: no headers files (.h) found in C:\Users\FIFA LAB07\Documents\Arduino\libraries\sketch_sep03a
21 Arduino Uno on COM3
week_7_photocal - ... photocal | Arduino ... Document1 - Word 11:31 AM ENG 9/9/2020

```

void setup()

{

 Serial.begin(9600);

 pinMode(13,OUTPUT);

 pinMode(2,INPUT);

```
}
```

```
void loop()
{
    if(Serial.available()>2)
    {
        byte fn = Serial.read();
        byte data = Serial.read();
        byte sum = Serial.read();
        if(fn == 1)
        {
            data = digitalRead(2);
            Serial.write(1);
            Serial.write(data);
            Serial.write(1+data);

        }
        if(fn == 2)
        {
            if(data == 1) digitalWrite(13,1);
            else digitalWrite(13,0);
            Serial.write(2);
            Serial.write(data);
            Serial.write(2+data);
        }
        Serial.flush();
    }
}
```

