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Q) Control the LED through Arduino using C# Application. Submit the video Arduino code & C# form.

Arduino Code:

```
const int BuiltInArduinoPin = 13;
int LEDState = 0;

void setup(){

  pinMode(BuiltInArduinoPin, OUTPUT);
  Serial.begin(9600);

}

void loop(){

  char receiveVal;
  if(Serial.available() > 0){

    receiveVal = Serial.read();

    if(receiveVal == '1'){

      LEDState = 1;

    }
    else{
```

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```
    LEDState = 0;


  }


 }


 digitalWrite(BuiltInArduinoPin, LEDState);

 delay(50);


}
```

C# Form Code:

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

namespace WindowsFormsApp1
{
    public partial class Form1 : Form
    {
        SerialPort port;

        public Form1()
        {
            InitializeComponent();
            this.FormClosed += new
FormClosedEventHandler(Form1_FormClosed);

            if (port == null)
            {
                //Change the portname according to your computer
                port = new SerialPort("COM3", 9600);
                port.Open();
```

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```
            }
        }

        void Form1_FormClosed(object sender, FormClosedEventArgs e)
        {
            if (port != null && port.IsOpen)
            {
                port.Close();
            }
        }

        private void button1_Click(object sender, EventArgs e)
        {

            PortWrite("1");

        }


        private void button2_Click(object sender, EventArgs e)
        {

            PortWrite("0");

        }

        private void PortWrite(string message)
        {
            if (port != null && port.IsOpen)
            {
                port.Write(message);
            }
        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }
    }
}
```

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