



PRACTICAL REPORT

For IoT Practical



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4.5 Serial Communication – Receive Multiple text field from one message

Arduino Code:

```
int baudRate = 9600;

const int NUMBER_OF_FIELDS = 5;
int fieldIndex = 0;
int values[NUMBER_OF_FIELDS];

void setup()
{
    /* Established Serial Communication. */
    Serial.begin(baudRate);

    Serial.println("Connection Establishing connection...!");
    while(!Serial){}
    Serial.println("Connection Established!");

    /* Wait until Serial Communication not established. */
    while(!Serial){}

    /* Send data through Serial Communication. */
    Serial.println("- Name of Author : DSP -");
    Serial.println("-----");
}

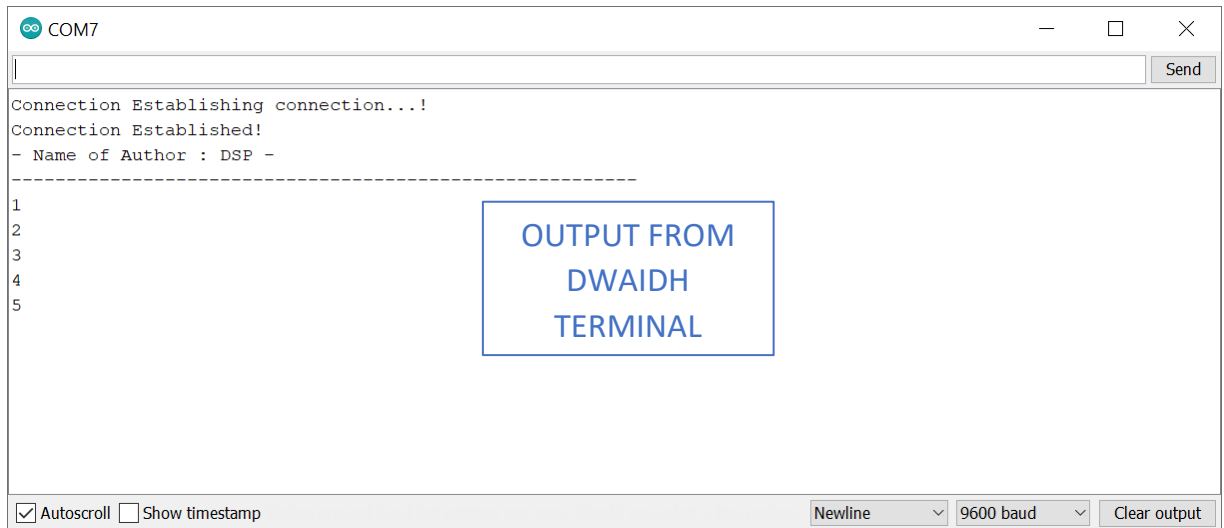
void loop()
{
    if( Serial.available())
    {
        char ch = Serial.read();
        if(ch >= '0' && ch <= '9')
        {
            if(fieldIndex < NUMBER_OF_FIELDS)
                values[fieldIndex] = (values[fieldIndex] * 10) + (ch - '0');
```

```

    }
    else if (ch == ',')
        fieldIndex++;
    else
    {
        for(int i=0; i < min(NUMBER_OF_FIELDS, fieldIndex+1); i++)
        {
            Serial.println(values[i]);
            values[i] = 0;
        }
        fieldIndex = 0;
    }
}
}

```

Output:



```

COM7
Connection Establishing connection...!
Connection Established!
- Name of Author : DSP -
-----
1
2
3
4
5

```

OUTPUT FROM
DWAI DH
TERMINAL

☒ Autoscroll ☐ Show timestamp Newline 9600 baud Clear output