

Bahan Ajar

Chapter 3



Materi Pembelajaran

Matakuliah :

PEMROGRAMAN TERSTRUKTUR

Kode Matakuliah : SKO 21411

Prodi : **SISTEM KOMPUTER**

Dosen Pengampu Matakuliah:

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Tables of Content

C ARDUINO DATA TYPES

1

- Variable Names in C
- The boolean Data Type
- The char Data Type
- Generating a Table of ASCII Characters
- The byte Data Type

Variable Names in C

If you can't use keywords for variable or function names, then what can you use? There are three general rules for naming variables or functions in C: Valid variable names may contain:

1

Characters a through z and A through Z

2

The underscore character (`_`)

3

Digit characters 0 through 9,

The Boolean Data Type

The boolean data type is limited to two values or states: true or false. These two values are constants that are defined within the compiler and are the only two values a boolean variable can assume.

Therefore, the following is a valid definition for a boolean variable:

```
boolean mySwitch = false;
```

The Boolean Data Type

which is probably going to be used to store the state of a switch (e.g., it is true that the switch is on). However, you may also see code like the following fragment:

```
boolean switchState;  
// some more program statements  
switchState = ReadSwitchState(whichSwitch);  
if (switchState) {  
    TurnSwitchOff(whichSwitch);  
} else {  
    TurnSwitchOn(whichSwitch);  
}
```

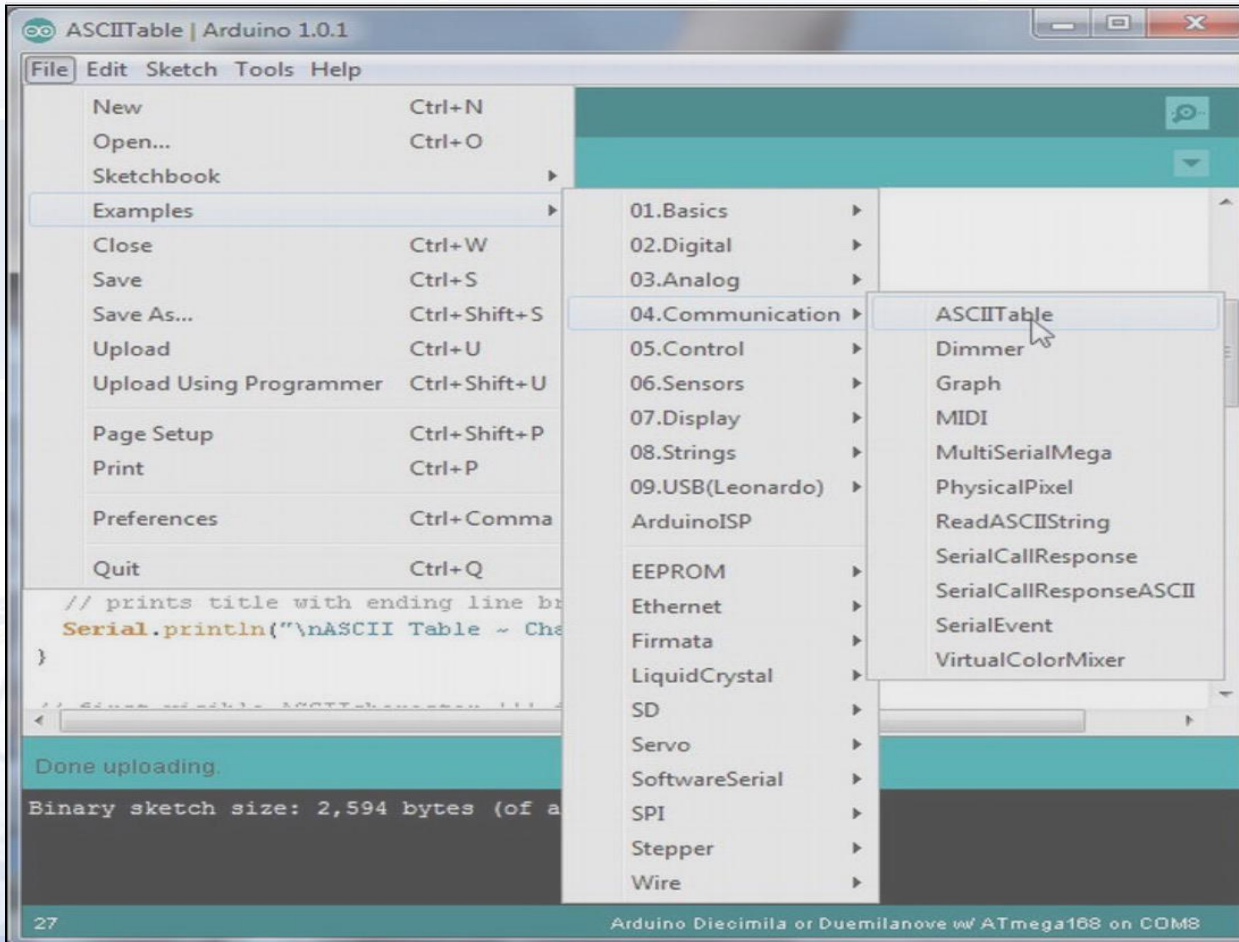
The char Data Type

The char data type is used to store a single character as an 8-bit quantity. This includes both the signed and unsigned char data type.

In all Arduino C data types, if the sign bit (the highest bit in the data type) is 1, then the interpretation is that the value is negative. In unsigned data types, there is no sign bit.

Chapter 3

Generating a Table of ASCII Characters



The byte Data Type

The byte data type is also an 8-bit value, but there is no sign bit, so its range is almost twice that of a char.

(Can you explain why an unsigned char has the same range as a byte? Think about it.)

You may use the byte data type to store any value between 0 and 255.

Chapter 3

Tugas Mandiri (teori):

Tuliskan dan jelaskan contoh penggunaan

1. Jelaskan Blok diagram dalam pemrograman
2. Apa tujuan dari pasangan karakter `/*` dan `*/`?

Tugas Mandiri (prakt):

Lakukan memprogram LED Blinking di Simulator dengan menambahkan library arduino ke dalam proteus 7

end

