

Bahan Ajar

Chapter 2



Materi Pembelajaran

Matakuliah :

PEMROGRAMAN TERSTRUKTUR

Kode Matakuliah : SKO 21411

Prodi : **SISTEM KOMPUTER**

Dosen Pengampu Matakuliah:

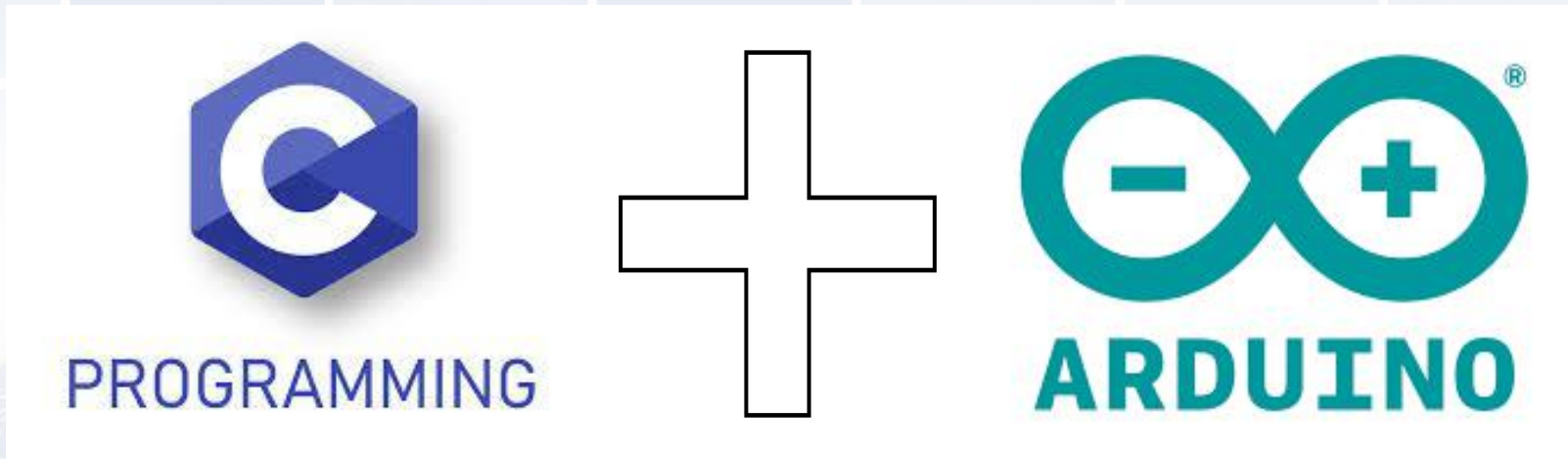
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C Arduino

Bahasa pemrograman Arduino dasarnya menggunakan bahasa pemrograman C.



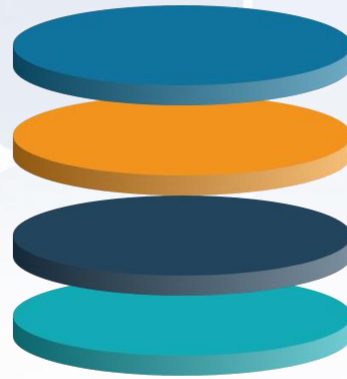
Building Block

Expressions

Statements

Statement blocks

Function blocks



Expressions

An expression is created by combining operands and operators. Simply stated, an operand is typically a piece of data that is acted on by an operator. An operator is often a mathematical or logical action that is performed on one or more operands.

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Expressions

$a + b$

$m - 3000$

$g < d$

$3 + C$

$3 + 3$

6

$A + B + C$

$g < d$

$5 < 4$

false

Statements

A statement is a complete C instruction for the computer. All C statements end with a semicolon (;)

The following are examples of C statements:

```
i = 50;
```

```
a = b + c;
```

```
m = d / 2;
```

```
x = a + b - c + g + h + k;
```

Statements Block

A statement block consists of one or more statements grouped together so they are viewed by the compiler as though they are a single statement.

For example, suppose you are an apartment manager, and if there is 4 or more inches of snow on the ground, then you need to shovel the sidewalk. You might express this as (the \geq operator is read as “greater than or equal to”):

Statements Block

```
if (snow >= 4) {  
    PutOnSnowRemovalStuff();  
    GetSnowShovel();  
    ShovelSidewalk();  
} else {  
    GoBackToBed();  
}
```

Function Block

A function block is a block of code that is designed to accomplish a single task. Although you may not be aware of it, you actually used a function block in the previous section.

That is, `PutOnSnowRemovalStuff()` is a function that is designed to have you put on your coat. The actual code might look like:

Function Block

```
void PutOnSnowRemovalStuff(void) {  
    if (NotDressed) {  
        PutOnClothes();  
        PutOnShoes();  
    }  
    GoToCloset();  
    PutOnBoots();  
    PutOnCoat();  
    PutOnGloves();  
    PutOnHat();  
}
```

Program Comments

```
/*  
This example block comment.  
This example block comment.  
*/
```

```
// This example line comment.
```

Chapter 2

Tugas Mandiri (teori):

Tuliskan dan jelaskan contoh penggunaan

- Expressions
- *Statements*
- *Statement blocks*
- *Function*

Tugas Mandiri (prakt):

Lakukan Instalasi Proteus 7, dilanjutkan dengan menambahkan library arduino ke dalam proteus 7

end

