

18ES611

Embedded System Programming

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Functions

Function is a group of statements that together perform a task.

Divide up your code into separate functions.

How you divide up your code among different functions is up to you.

but logically the division usually is so each function performs a specific task

A function declaration tells the compiler about a function's name, return type, and Parameters

The general form of a **function definition** in C programming language is as follows:

```
return_type function_name( parameter list )
{
    body of the function
}
```

A function definition in C programming language consists of a function header and a function body

The parts of a function

Return type A function may return a value.

Function name this is the actual name of the function the function name and the parameter list together constitute the function signature

Parameters a parameter is like a placeholder. When a function is invoked, you pass a value to the parameter.

Function body the function body contains a collection of statements that define what the function does

Function Declarations

A function declaration tells the compiler about a function name and how to call the function. The actual body of the function can be defined separately.

A function declaration has the following parts:

```
return_type function_name ( parameter list );
```

Parameter names are not important in function declaration; only their type is required.

Function declaration is required when you define a function in one source file and you call that function in another file.

Default: extern storage class

Calling a Function

When a program calls a function, program control is transferred to the called function

A called function performs defined task, and when its return statement is executed or when its function ending closing brace is reached, it returns program control back to the main program

Types

Return type

With arguments

Without arguments

No return type

With arguments

Without arguments



THANK YOU!!!!!!