

Printing Text

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Printing Text

Embedded Systems typically do not print anything

- We introduce printing to the console for 3 reasons
 - For debugging our code
 - To practice our programming (so we can see what's happening)
 - To prepare for general programming situations

Printing Text

- C has very powerful I/O capabilities
 - Accessed by including the standard I/O library

```
#include <stdio.h>
```

Remember the < brackets > are used when accessing standard library elements

Printing Text

- Printing text (a string constant) is very simple

command: `printf()`
format: “text to display”
optional: “\n” prints a line feed (a new line is started)
 “\t” prints a tab
 Many other options

Examples:

`printf(“Hello World”);` - prints **Hello World**
`printf(“Foo, boo, soo\n”);` - prints **Foo, boo, soo** and a new line is started
`printf(“\n\n”);` - prints a blank line and a 2nd line is started

Printing Text

- Special Characters

- Special characters need to be treated differently because they are used by the printf() function to do special things

\ “

To print one of these characters they must be preceded by a backslash\

Examples:

```
printf("Hello \\ World");
```

- prints Hello \ World

```
printf("Foo, \"boo\", soo\n");
```

- prints Foo, "boo", soo and a new line

% is special – precede it with another %

```
printf("12%%\n\n");
```

- prints 12% and 2 new lines