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String()

Description

Constructs an instance of the String class. There are multiple versions that construct Strings from different data types (i.e. format them as sequences of characters), including:

- a constant string of characters, in double quotes (i.e. a char array)
- a single constant character, in single quotes
- another instance of the String object
- a constant integer or long integer
- a constant integer or long integer, using a specified base
- an integer or long integer variable
- an integer or long integer variable, using a specified base
- a float or double, using a specified decimal places

Constructing a String from a number results in a string that contains the ASCII representation of that number. The default is base ten, so

```
String thisString = String(13);
```

[\[Get Code\] \(//www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=1\)](https://www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=1)

gives you the String "13". You can use other bases, however. For example,

```
String thisString = String(13, HEX);
```

[\[Get Code\] \(//www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=2\)](https://www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=2)

gives you the String "D", which is the hexadecimal representation of the decimal value 13. Or if you prefer binary,

```
String thisString = String(13, BIN);
```

[\[Get Code\] \(//www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=3\)](https://www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=3)

gives you the String "1101", which is the binary representation of 13.

Syntax

String(val)

String(val, base)

String(val, decimalPlaces)

Parameters

val: a variable to format as a String - string, char, byte, int, long, unsigned int, unsigned long, **float**, **double**

base (optional) - the base in which to format an integral value

decimalPlaces (**only if val is float or double**) - the desired decimal places

Returns

an instance of the String class

Examples

All of the following are valid declarations for Strings.

```
String stringOne = "Hello String";           // using a constant String
String stringOne = String('a');             // converting a constant char
into a String
String stringTwo = String("This is a string"); // converting a constant string into a
String object
String stringOne = String(stringTwo + " with more"); // concatenating two strings
String stringOne = String(13);               // using a constant integer
String stringOne = String(analogRead(0), DEC); // using an int and a base
String stringOne = String(45, HEX);          // using an int and a base
(hexadecimal)
String stringOne = String(255, BIN);          // using an int and a base (binary)
String stringOne = String(millis(), DEC);     // using a long and a base
String stringOne = String(5.698, 3);         // using a float and the decimal
places
```

[Get Code] (<https://www.arduino.cc/en/Reference/StringConstructor?action=sourceblock&num=4>)

See also

- String Constructor Tutorial (<https://www.arduino.cc/en/Tutorial/StringConstructors>)

Reference Home (<https://www.arduino.cc/en/Reference/HomePage>)

Corrections, suggestions, and new documentation should be posted to the Forum (<http://arduino.cc/forum/index.php/board,23.0.html>).

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