String Split Function For Arduino

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Description:

The purpose of this library is to implement something close to the split() function in python. The split() function will take a string as input, and output an array of elements. Any letter, number, or symbol is considered to be an element. White spaces are removed. Numbers and letters that don't have a space between them will be put into one element, but symbols are always put into their own elements. For example:

the string "`if (counter1 < 10) {`" *would turn into:* `[ 'if', '(', 'counter1', '<', '10', ')', '{' ]`

Note: In an effort to keep the program simple, the size of the array used to hold the elements is constant and defined by the user as a global variable. What length to set the array to pretty much just depends on what it is being used for, but 20 spaces is a good starting point for most applications

IMPORTANT: The format of the array that holds the elements is made so the first space (elements[0]) holds the number of elements found, NOT the first element found in the string. So, if you want to access just the elements, start at 1 and go through the end. The first value (elements[0]) is stored in the array as a string, but the results function already returns it as an integer if you need to use it (see example programs).