

Programming Lab #2

Functions and Parameters

Prerequisite Reading: Chapters 1-3

Revised: October 10, 2017

Create an assembly language source code file containing six functions. If the functions were written in C, they would look like the following:

<pre>uint32_t Ten32(void) { return 10; }</pre>	<pre>uint64_t Ten64(void) { return (uint64_t) 10; }</pre>	<pre>uint32_t Incr(uint32_t n) { return n + 1; }</pre>
<pre>uint32_t Nested1(void) { return rand() + 1; }</pre>	<pre>uint32_t Nested2(void) { return rand() + rand(); }</pre>	<pre>void PrintTwo(char *format, uint32_t n) { printf(format, n); printf(format, n + 1); }</pre>

Test your functions using the main program downloaded from <u>here</u>. If you code works correctly, the display should look like the image below (although the numbers are likely to be different):

```
STM32F429I-DISCO

Ten32() = 0x0000000A 0K
Ten64() = 0x00000000000000A 0K
Incr(242487041) = 242487042 0K
Nested1() = 1826616249 0K
Nested2() = 932751328 0K
Next numbers must be consecutive:
number = 4106920
number = 4106921
--- FINISHED! ---

Lab 2: Functions 4 Parameters
```