**Lab #1 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- |
| **Item** | **Grade** | **Points** |
| **Req** | **45** |  |
| **A Func** | **15** |  |
| **Github** | **5** |  |
| **Code Style** | **10** |  |
| **Readme** | **25** |  |
| **Total** | **100** |  |

**Code Style**

**Lab notebook**

* **Introduction** - Provide a brief overview of the problem.
* **Implementation** - Provide block-diagram of your solution using the **signal names in your code**. The block diagram given above is somewhat incomplete, make sure to include corrections to this diagram. For each module that you built, explain its overall purpose, inputs, outputs, and behavior. Include all your vhdl files (code and testbench), wcfg file, and bit files. Put these in a folder called "code".
* **Test/Debug** - Briefly describe the methods used to verify system functionality. Show at least three excerpts from your testbench for the VGA module (as screen shots):
  1. Show the h\_synch going high, low, high, and related h count.
  2. Show the h count rolling over causing the v count to increment
  3. Show the v\_synch going high, low, high, and related v count.

List the major problems you encountered and how you fixed them. This should cover all the problems you encountered in the lab and how you fixed them. Break each problem and solution into separate paragraphs.

* **Conclusion** - Explain what your learned from this lab and what changes you would recommend in future years to this lab or the lectures leading up to this lab.

Commit history

File structure of main Git directory