Lab 3 Rubric

Activity: Lab 3) Prototype Model Phase 1

Course: ECE 298 - Spring 2021

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Document	**Yes** 3 points	**Mostly** 2 points	**Marginally** 1 point	**No** 0 points	**Criterion Score**
Part 1: Coverage of MCU Pin Mappings	Present, clear, and exhaustive ✓	One MCU Pin, or Pin Mode, or Functional Description missing, incorrect, or confusing	More than one MCU Pin, or Pin Mode, or Functional Description missing, incorrect, or confusing	Too many errors or omissions	3 / 3
Part 2: Coverage of MCU Resources	Present, clear, and exhaustive ✓	One MCU resource or Functional Description missing, incorrect, or confusing	More than one MCU resource or Functional Description missing, incorrect, or confusing	Too many errors or omissions	3 / 3
Part 3a: Presence of prototype schematic circuits (including MCU connectivity and interfacing)	All prototype schematic circuits are presented and described ✓	Some prototype schematic circuits are not presented, or their descriptions are confusing or missing	Many prototype schematic circuits are not presented, or their descriptions are confusing or missing	Too many errors or omissions	3 / 3
Part 3b: Correctness of prototype schematic circuits (including MCU connectivity and interfacing)	All prototype schematic circuits have correct electrical design details and include correct MCU I/O considerations OR any errors or weaknesses are identified in the text ✓	Some prototype schematic circuits have electrical design errors or weaknesses AND such errors or weaknesses are not identified in the text	Many prototype schematic circuits have electrical design errors or weaknesses AND such errors or weaknesses are not identified in the text	Too many errors or omissions	3 / 3
Part 3c: Comprehensive Project Test Cases	Tests are performed to exercise all project operational modes necessary to meet the project requirements ✓	Some project test cases appear to be absent, missing some project requirements	Many project test cases appear to be absent, missing many project requirements	Too many errors or omissions	3 / 3
Part 3d: Project Test Case Coverage	All project tests properly exercise the system OR any errors or weaknesses are identified in the text ✓	Some project tests have errors or weaknesses AND such errors or weaknesses are not identified in the text	Many project tests have errors or weaknesses AND such errors or weaknesses are not identified in the text	Too many errors or omissions	3 / 3
Overall: Document quality	Formatting of the document is professional and includes appropriate use of paragraph and font styles, and appropriate formatting of tables and figures ✓	Formatting of the document is generally consistent and adequate, and mostly includes appropriate use of paragraph and font styles, and appropriate formatting of tables and figures	Formatting of thedocument is inconsistent and inadequate, and marginally includes the use of paragraph and font styles, and marginal formatting of tables and figures	Document is formatted poorly and lacksappropriate use of paragraph and font styles, or appropriate formatting of tables and figures	3 / 3

Basics	**Yes** 1 point	**No** 0 points	**Criterion Score**
The schematic simulates without error	✓		1 / 1
The schematic no longer contains Proteus Generators	✓		1 / 1

Basics	**Yes** 1 point	**No** 0 points	**Criterion Score**
A working .HEX file is included in the submission	✓		1 / 1

Details	**Yes** 3 points	**Mostly** 2 points	**Marginally** 1 point	**No** 0 points	**Criterion Score**
The schematic is “reader friendly” • Busses to group signals • Don’t make the reader hunt for net connection endpoints • Nets are neat and tidy	The schematic is reader-friendly ✓	The schematic is mostly reader-friendly, but with some clear areas for improvement	The schematic is messy and difficult to follow	The schematic is too messy and extremely difficult to follow	3 / 3
Schematic follows best practices • No floating inputs • No four-way inputs (use T instead) • Appropriate use of net labels to form connections	The schematic follows all best practices ✓	The schematic mostly follows best practices, but with some clear areas for improvement	The schematic does not follow many best practices	The schematic follows no best practices	3 / 3
MCU software readability	The code is exceptionally well organized and very easy to follow ✓	The code is fairly easy to read	The code is readable only by someone who knows what it is supposed to be doing	The code is poorly organized and very difficult to read	3 / 3

Total	33 / 33

Overall Score

Exceeds ✓ 19 points minimum	**Meets** 15 points minimum	**Marginal** 13 points minimum	**Below** 0 points minimum