Project 2.3.5 PLD Design Rubric

Total Points _____/95

Breadboard (15 points)

Topics	5 points	4 points	2 points	1 point
Component Wiring	Wiring is neat and easy to follow. Wiring strategy is clear, consisting of color-coded sections/components.	Wiring is completed correctly.	Wiring is difficult to follow.	Wiring is mostly incorrect.
Functionality (x2)	Circuit functions correctly, consistently, and the chosen components are appropriate.	Circuit functions most of the time, and the chosen components are appropriate.	Circuit sometimes functions.	Circuit rarely functions.

Simulation (15 points)

Topics	5 points	4 points	2 points	1 point
Neatness	Connections and layout of circuit is done neatly and organized well for ease of use and understanding.	Layout of circuit is done neatly and organized well for ease of use and understanding.	Layout of circuit is done neatly.	Layout is disorganized and difficult to follow.
Annotation	Appropriate text and highlighting added to clearly indicate each portion of the circuit's functionality and purpose.	Appropriate text and highlighting added to clearly explain most of the circuit design.	Appropriate text and highlighting added to explain circuit design.	Very little to no text or highlighting added to explain circuit design.
Functionality	Circuit functions correctly, consistently, and the chosen components are appropriate. Indicators and interactive constants are added to demonstrate simulation in PLD mode.	Circuits functions most of the time, and the chosen components are appropriate. Indicators and interactive constants are added to demonstrate simulation in PLD mode.	Circuit sometimes functions.	Circuit rarely functions.

Video Presentation (10 points)

Topics	5 points	4 points	2 points	1 point
Content	All required elements of the video included to fully explain your circuit design and process.	Most required elements of the video included that explain your circuit design.	Missing some key elements of your explanation that make your design difficult to understand.	Missing most required elements, making your circuit design very difficult to understand.
Clarity	Video quality very clear - audio easy to understand and at a good volume, visuals clear and circuits easy to see and follow.	Audio or visual components were mostly clear and easy to follow.	Audio or visual components are somewhat difficult to hear or see.	Audio is difficult to hear and/or mumbled, video quality is very poor, making it difficult to understand.

More on next page...

Electronic Documentation (55 points)

Topics	5 points	4 points	2 points	1 point
Professional Appearance	Includes all required sections; includes page numbers and appropriate section headings. Font and spacing choices are appropriate for each type of text and consistent throughout document.	Includes most required sections; includes page numbers and appropriate section headings. Font and spacing choices are appropriate.	Does not include all required sections; includes page numbers; section headings could have been better organized. Font and spacing choices not appropriate.	Missing many sections; does not have page numbers or section headings. Lack of care put into layout and organization.
Title Page & Table of Contents	Includes all components required for a complete title page and table of contents. Page numbers and sections are consistent and accurate.	Includes 80% or more of the necessary components for a complete title page and table of contents. Some page numbers or sections are inaccurate.	Includes 60% or more of the necessary components for a complete title page and table of contents. Many page numbers or sections inaccurate.	Title page and table of contents unorganized and inaccurate.
Design Brief & Display Definitions	Is grammatically correct and includes a clear and concise description of the design statement; all constraints and deliverables listed neatly. Display configuration explained clearly with paragraph explanation of output requirements.	Includes a clear and concise description of the design statement; all constraints and deliverables listed neatly. Display configuration explained with paragraph explanation of output requirements.	Includes a description of the design statement; all constraints and deliverables listed. Display configuration explained.	Has many grammar mistakes; missing display configuration explanation.
Truth Table	Correctly demonstrates the output of each of the display components used. Organized neatly in document to help facilitate understanding.	Correctly demonstrates the output of each of the display components used..	Demonstrates the output.	Is missing elements.
Logic Expressions	Unsimplified and simplified equations are included and correct for each output.	Simplified equations are included and correct.	Unsimplified logic expressions are included.	Logic expressions are not included for each output.
Final Solution Description (x2)	Paragraph description of final design clearly indicates performance and describes the design process taken to reach the solution.	Paragraph description of final design indicates performance and describes the design process taken to reach the solution.	Paragraph description of final design included.	Description of final design included.
Final Breadboarded Circuit (x2)	Solution is accurately represented through high-quality photographs. **Multiple views** used to clearly highlight all physical aspects of the circuit. Is properly detailed for effective communication, including **labels and descriptions.**	Solution is represented through photographs. Is properly detailed for effective communication, including labels and descriptions.	Photographs are included but lacks details for effective communication, such as labels and descriptions.	Photographs included do not present the concept well. Missing several details for effective communication, including labels and descriptions.
Simulation (x2)	Screen shots of final simulations are provided and clearly displayed. Simulations are well-organized and described to indicate what portion of circuit is shown in each photo.	Screen shots of final simulations provided. Simulations are organized with labels.	Screen shots of final simulation provided.	Screen shot(s) of final program provided, but missing some parts or highly disorganized.