

Purpose: To assess the student's ability to select appropriate sensors and integrate them into a real-world system.

Team Name: _____

Evaluator: _____

Date: _____

Report	Score
Design	/60
Twist	/40
TOTAL:	/100

Design Report

PERFORMANCE LEVELS (1-10 point scale)					
DIMENSIONS (WEIGHT)	Does Not Meet Expectations (1-3 points)	Meets Expectations (4-7 points)	Exceed Expectations (8-10 points)	Points	Points × weight
Sensor Selection (15%)	Fails to select appropriate sensors with justification using little descriptive text, equations, and diagrams.	Partially selects appropriate sensors with justification using some descriptive text, equations, or diagrams.	Correctly selects appropriate sensors with justification using descriptive text, equations, and diagrams.		
Sensor Integration (15%)	Fails to integrate sensors (filters, power, etc) using any appropriate methods, descriptive text, equations, and diagrams.	Partially integrates sensors (filters, power, etc) using some appropriate methods, descriptive text, equations, or diagrams.	Correctly integrates sensors (filters, power, etc) using appropriate methods, descriptive text, equations, and diagrams.		
Design Feasibility (10%)	The presented design is unlikely to solve the given problem.	The presented design is somewhat likely to solve the given problem.	The presented design is highly likely to solve the given problem.		
Equations (5%)	Fails to include professionally formatted or relevant equations with appropriate explanations.	Mostly includes professionally formatted or relevant equations with appropriate explanations.	Includes professionally formatted and relevant equations with appropriate explanations.		
Figures and Tables (10%)	Fails to produce figures and tables using appropriate software tools or including necessary equations or code.	Mostly produces figures and tables using some appropriate software tools and including some necessary equations or code.	Professionally produces figures and tables using appropriate software tools and including necessary equations or code.		
Teamwork (5%)	Fails to demonstrate professional working behaviors by not dividing tasks among group members, resolving conflict, or citing supporting works.	Mostly demonstrates professional working behaviors by dividing tasks among group members, resolving conflict, or citing supporting works.	Demonstrates professional working behaviors by dividing tasks among group members, resolving conflict, and citing supporting works.		
Structure (-5%)	Statements and are poorly organized	Most statements are usually well-organized; use of sections is logical and generally allows easy reading	All statements are well-organized; use of sections is logical and allows easy navigation of the document		
Mechanics (-5%)	Statements are poorly written; there are numerous incorrect word choices and errors in grammar, punctuation and spelling	Statements are generally well-written; there are a few incorrect word choices and errors in grammar, punctuation and spelling	Statements are well-written; there are no incorrect word choices and the text is free of errors in grammar, punctuation and spelling		
Appearance (-5%)	The report looks poorly laid out and congested, difficult to read.	Most of the report is laid out neatly and not congested. Separate sections can be identified and are easier to read.	The report is laid out well; sections appear distinct and easy to read.		
Total 60%					Score =

“The Twist” Report

PERFORMANCE LEVELS (1-10 point scale)					
DIMENSIONS (WEIGHT)	Does Not Meet Expectations (1-3 points)	Meets Expectations (4-7 points)	Exceed Expectations (8-10 points)	Points	Points × weight
Proposal Analysis (15%)	Fails to analyze the proposed solution using any appropriate equations, symbols, descriptive text, or diagrams.	Partially analyzes the proposed solution using some appropriate equations, symbols, descriptive text, and diagrams.	Professionally analyzes the proposed solution using appropriate equations, symbols, descriptive text, and diagrams.		
Identified Weaknesses (15%)	Fails to identify weaknesses in the proposed solution with any strategies to compromise the design.	Partially identifies weaknesses in the proposed solution with some strategies to compromise the design.	Professionally identifies multiple weaknesses in the proposed solution with strategies to compromise the design.		
Figures and Tables (5%)	Fails to produce figures and tables using appropriate software tools or including necessary equations or code.	Mostly produces figures and tables using some appropriate software tools and including some necessary equations or code.	Professionally produces figures and tables using appropriate software tools and including necessary equations or code.		
Teamwork (5%)	Fails to demonstrate professional working behaviors by not dividing tasks among group members, resolving conflict, or citing supporting works.	Mostly demonstrates professional working behaviors by dividing tasks among group members, resolving conflict, or citing supporting works.	Demonstrates professional working behaviors by dividing tasks among group members, resolving conflict, and citing supporting works.		
Structure (-5%)	Statements and are poorly organized	Most statements are usually well-organized; use of sections is logical and generally allows easy reading	All statements are well-organized; use of sections is logical and allows easy navigation of the document		
Mechanics (-5%)	Statements are poorly written; there are numerous incorrect word choices and errors in grammar, punctuation and spelling	Statements are generally well-written; there are a few incorrect word choices and errors in grammar, punctuation and spelling	Statements are well-written; there are no incorrect word choices and the text is free of errors in grammar, punctuation and spelling		
Appearance (-5%)	The report looks poorly laid out and congested, difficult to read.	Most of the report is laid out neatly and not congested. Separate sections can be identified and are easier to read.	The report is laid out well; sections appear distinct and easy to read.		
Total 40%	Score =				