

SGEL6000 Independent Project

DOUBLE MARKING SHEET AND COMBINED STUDENT FEEDBACK

Assessment 2 of 4

Presentation 1: Project Definition, Research and Quality Planning

2020-2021

Agreed mark

69

Student Name: Phillip Rowe

Student Number 1602827

<https://youtu.be/WIQPw8T2rH8>

<https://youtu.be/XPNLLIVL4wU>

Generic Assessment Criteria	Marks available	1st Marker (RD)	2nd Marker (MH)	Agreed Mark
1. Engagement with Literature Skills.				
Section 1: Engagement in research, for project background (4/5) Good evidence present (RD) Evidence of research was demonstrated, with consideration for wider issues such as ethical engineering and H&S.(MH)	5	3	4	4
Section 5: Engagement in research, for review of solutions (4/5) Good evidence present (RD) Good range of relevant and reliable academic sources, citations were limited considering the length of the reference list (MH)	5	3	4	4
Total	10	6	8	8
2. Knowledge and Understanding Skills				
Section 1: Project background (4/5) Clearly explained (RD) Project explained as a weld monitoring system on industrial steel coils (MH)	5	4	4	4
Section 3: Project risks, health and safety etc (4/5) A good risk matrix presented (RD) Risks to the project success were discussed. Mainly as existing system could not be interfered with and required minimal downtime. Funding was secured (MH)	5	5	3	4
Response to questions 1 and 4 (8/10) Good answers presented (RD) Detailed answers provided, generally with confidence and without hesitation (MH)	10	7	8	8
Total	20	16	15	16
3. Cognitive and Intellectual Skills				
Section 1: Problem Definition and constraints (6/10) Clearly set out (RD) Good explanation given (MH)	10	6	7	6
Section 2: Functional Design Specification (6/10) Good information presented but this slide was very brief, budget should have been included on this slide (RD)	10	5	6	6

FDS was explained, however this lacked some detail on specifics that would have been expected at this stage. Presentation slide for this was sparse on detail (MH)				
Section 4: Test planning (6/10) Good explanation given (RD) A test plan with was included with performance metrics to gauge success, although tolerance of readings was not given, again the slide was sparse (MH)	10	7	6	6
Response to questions 2 and 6 (4/5) Good answers (RD) A little vague on some responses suggests that progress may be behind schedule (MH)	5	4	3	4
Total	35	22	22	22
4. Practical Application Skills				
Section 5: Critical choice and justification of final solution (7/10) Good solutions, good choice made. (RD) 3 solutions given and a grading of each was briefly explained, justification for final choice was mentioned (MH)	10	7	7	7
Section 6: Project Planning and working breakdown structure (5/10) Basic, brief (RD) Gantt chart and WBS used as planning tools, both were basic in nature (MH)	10	5	6	5
Response to questions 3 and 5 (4/5) Good answers given (RD) Good answers to these questions (MH)	5	4	4	4
Total	25	16	17	16
5. Transferable Skills for Life and Professional Practice				
All sections: Quality of the presentation slides – (3/5) Good (RD) All slides were clear and readable, some were sparse on detail (MH)	5	4	3	3
All sections: Quality of the delivery style – (4/5) Good, though overran time (RD) Confident and fluid, presentation was well-timed although over-ran slightly (MH)	5	4	4	4
Total	10	8	7	7
Grand Total	100	68	69	69

Presentation 1

by Phillip Rowe

FILE	7557_PHILLIP_ROWЕ_PRESENTATION_1_178787_1055223956.PPTX (2.99M)		
TIME SUBMITTED	08-JAN-2021 02:29PM (UTC+0000)	WORD COUNT	154
SUBMISSION ID	141259154	CHARACTER COUNT	848

Weld monitoring system

Individual project by Phillip Rowe

Project background, problem definition and constraints

- Project background
- Problem definition
- Constraints



Functional design specification

- FDS breakdown
- Requirements
- Hardware

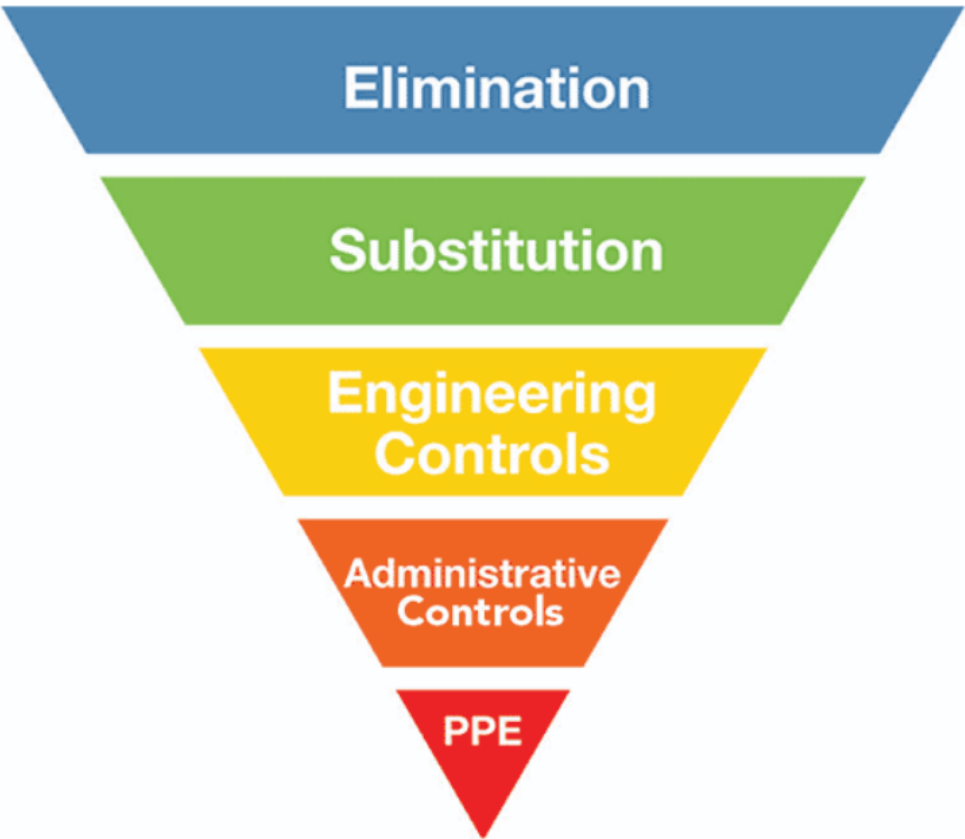
Project risks and H&S

RISK MATRIX

RISK RATING KEY

LOW	MEDIUM	HIGH	EXTREME
0 – ACCEPTABLE	1 – ALARP as low as reasonably practicable	2 – GENERALLY UNACCEPTABLE	3 – INTOLERABLE
OK TO PROCEED	TAKE MITIGATION EFFORTS	SEEK SUPPORT	PLACE EVENT ON HOLD

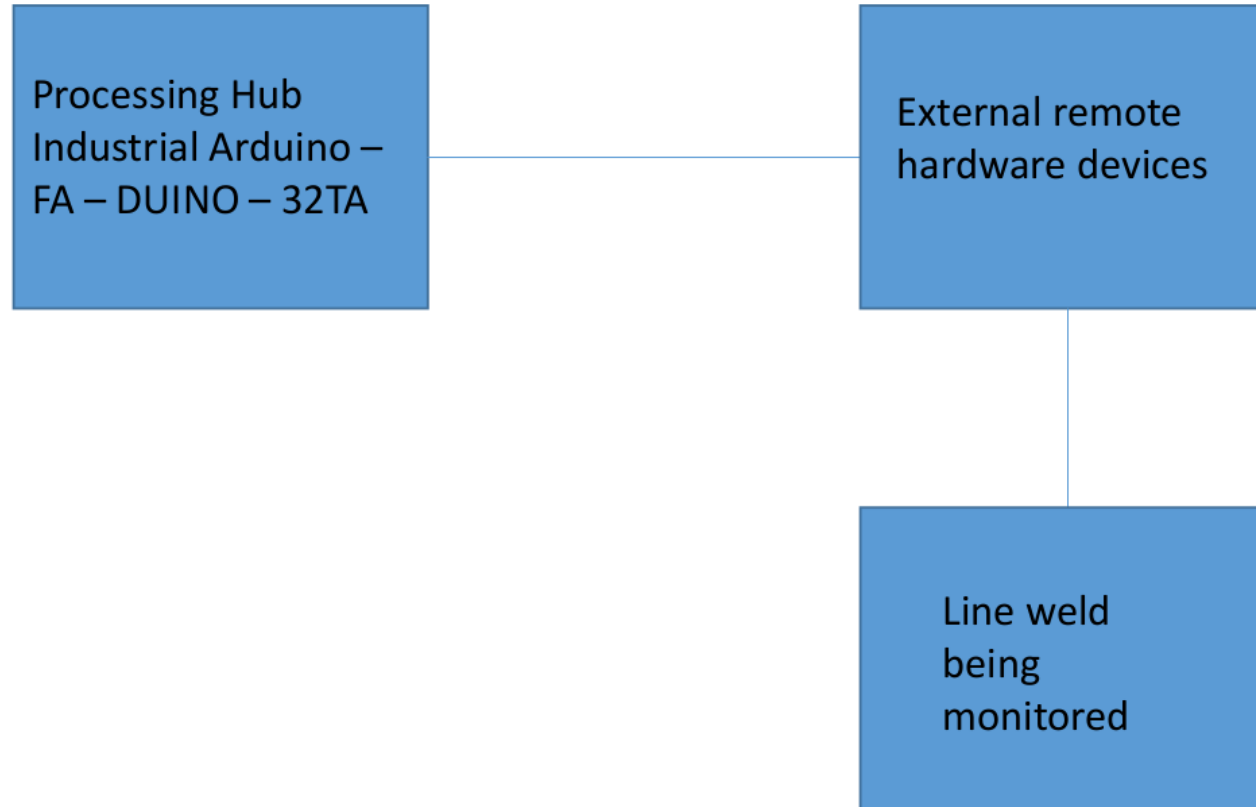
		SEVERITY →			
		ACCEPTABLE LITTLE TO NO EFFECT ON EVENT	TOLERABLE EFFECTS ARE FELT, BUT NOT CRITICAL TO OUTCOME	UNDESIRABLE SERIOUS IMPACT TO THE COURSE OF ACTION AND OUTCOME	INTOLERABLE COULD RESULT IN DISASTER
LIKELIHOOD ↓	IMPROBABLE RISK IS UNLIKELY TO OCCUR	LOW – 1 –	MEDIUM – 4 –	MEDIUM – 6 –	HIGH – 10 –
	POSSIBLE RISK WILL LIKELY OCCUR	LOW – 2 –	MEDIUM – 5 –	HIGH – 8 –	EXTREME – 11 –
	PROBABLE RISK WILL OCCUR	MEDIUM – 3 –	HIGH – 7 –	HIGH – 9 –	EXTREME – 12 –



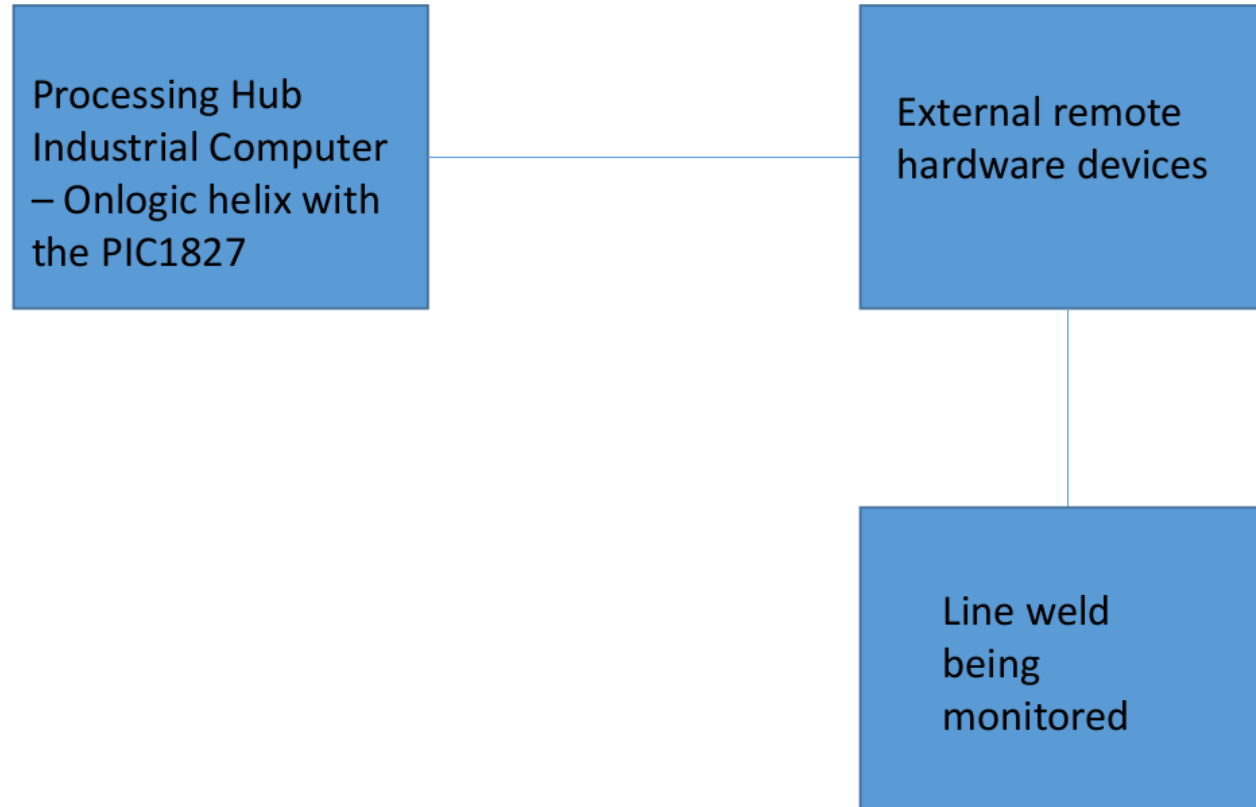
Test planning

- Dead testing
- Live testing
- Functional testing

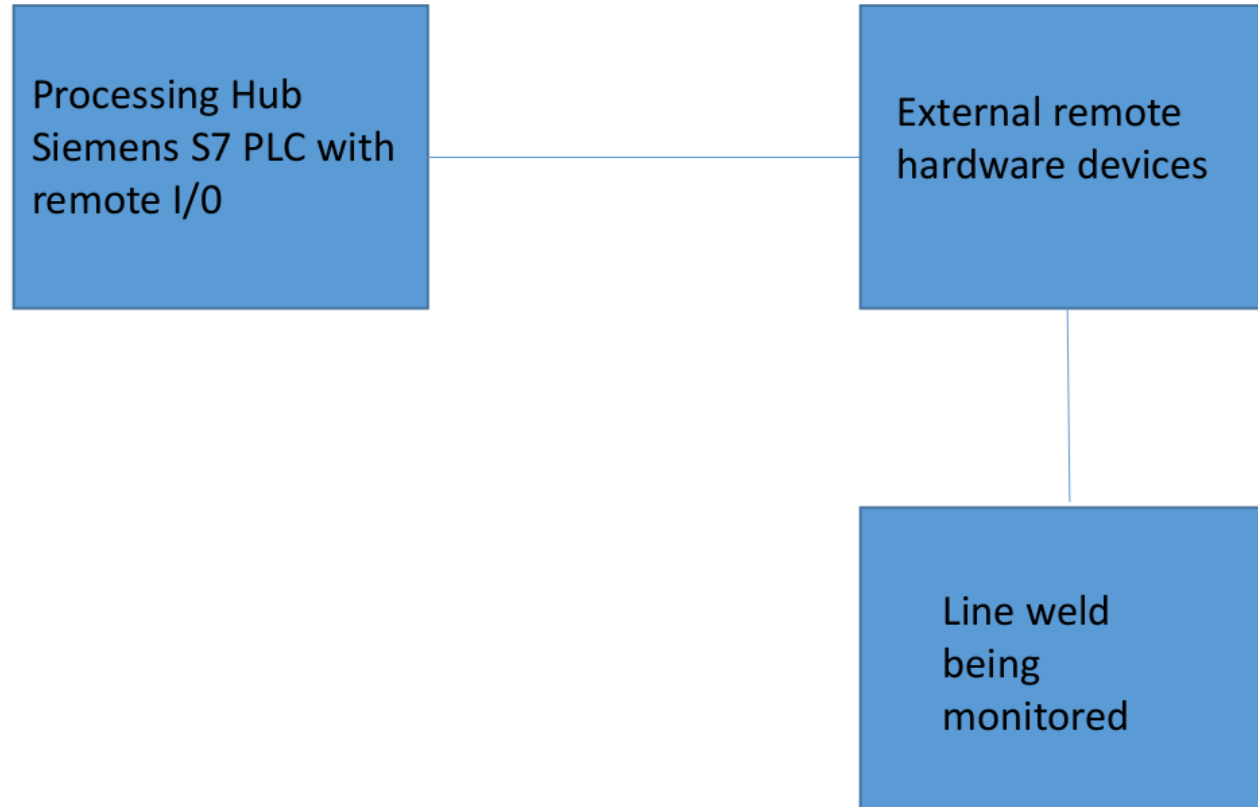
Solution 1



Solution 2



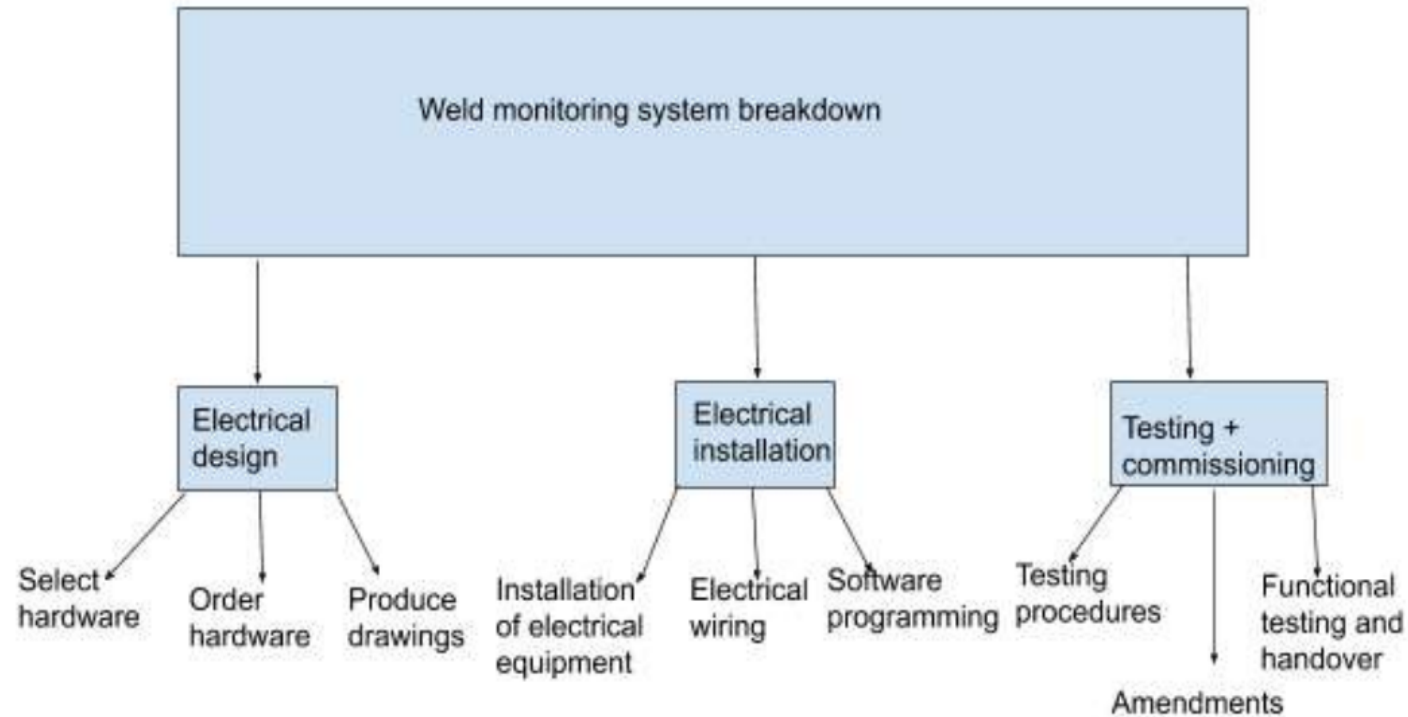
Solution 3



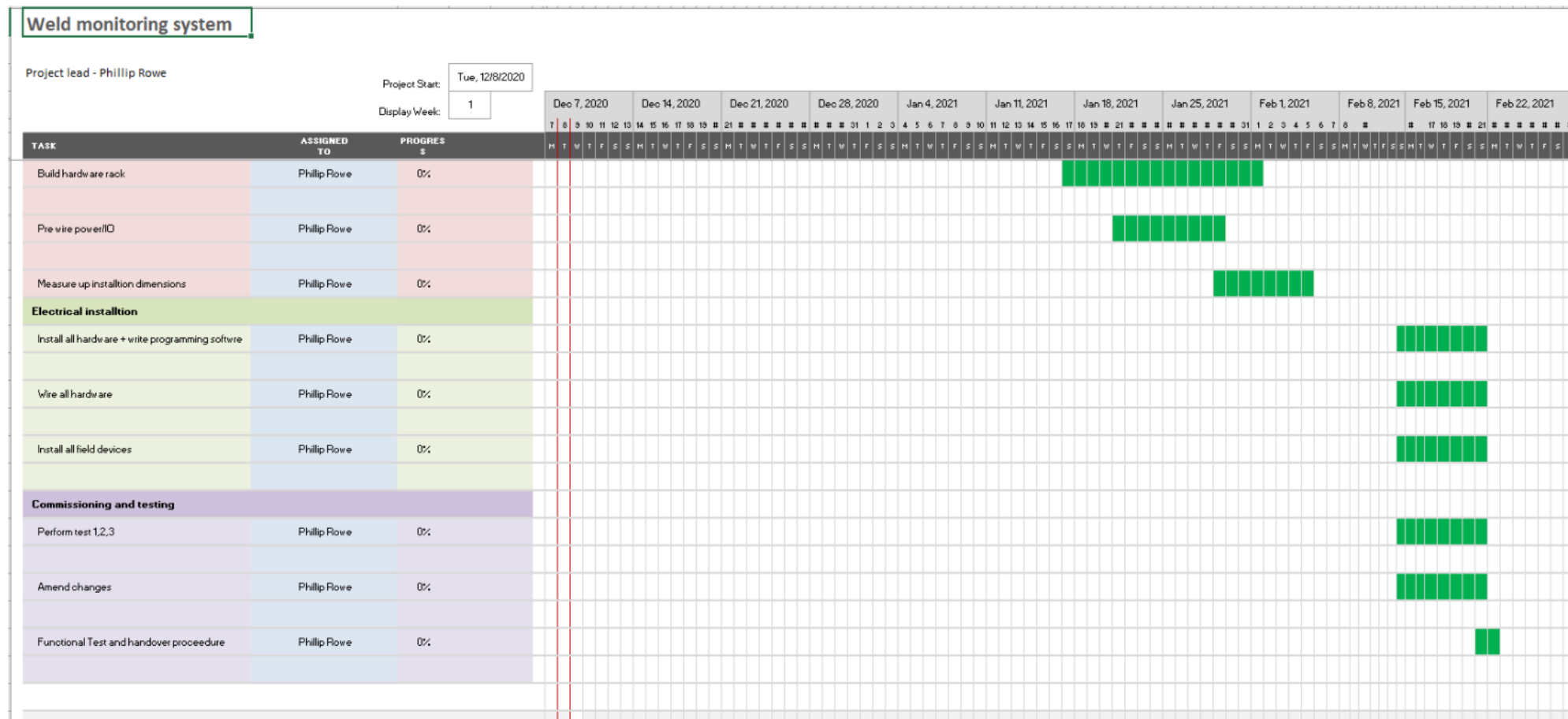
Review of 3 solutions

	1. Arduino	2. Industrial computer	3.S7- PLC
Cost (1-10)	8	7	3
Efficiency (1-10)	6	7	9
Reliability (1-10)	5	7	9
Support (1-10)	8	8	9
Speed (1-10)	7	8	10
Protection (1-10)	4	9	8
Total score (Higher the better)	38/60	46/60	48/60

Project planning and work breakdown



Current progress



Presentation 1

GRADEMARK REPORT

FINAL GRADE

69/100

GENERAL COMMENTS

Instructor

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1. ENGAGEMENT WITH LITERATURE

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2. KNOWLEDGE AND UNDERSTANDING

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3. COGNITIVE AND INTELLECTUAL

 Section 1: Problem Definition and constraints (6/10) Clearly set out (RD) Good explanation given (MH)
Section 2: Functional Design Specification (6/10) Good information presented but this slide was very brief, budget should have been included on this slide (RD) FDS was explained, however this lacked some detail on specifics that would have been expected at this stage. Presentation slide for this was sparse on detail (MH) Section 4: Test planning (6/10) Good explanation given (RD) A test plan with was included with performance metrics to gauge success, although tolerance of readings was not given, again the slide was sparse (MH) Response to questions 2 and 6 (4/5) Good answers (RD) A little vague on some responses suggests that progress may be behind schedule (MH)

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4. PRACTICAL APPLICATION

 Section 5: Critical choice and justification of final solution (7/10) Good solutions, good choice made. (RD) 3 solutions given and a grading of each was briefly explained, justification for final choice was mentioned (MH) Section 6: Project Planning and working breakdown structure (5/10) Basic, brief (RD) Gantt chart and WBS used as planning tools, both were basic in nature (MH) Response to questions 3 and 5 (4/5) Good answers given (RD) Good answers to these questions (MH)

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5. TRANSFERABLE SKILLS

 All sections: Quality of the presentation slides – (3/5) Good (RD) All slides were clear and readable, some were sparse on detail (MH) All sections: Quality of the delivery style – (4/5) Good, though overran time (RD) Confident and fluid, presentation was well-timed although over-ran slightly (MH)

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