

Task 2B Answer Template

Group number: 3	
PM: Munirah Alyatama	Secretary: Bashayer Abukarbal

1. Identify the slack in your project **prior** to the change order using the template below:

Event	LOT	EOT	Slack
Research space-grade microcontrollers	05-Nov-24	01-Nov-24	0 days
Research power regulation circuits	05-Nov-24	01-Nov-24	0 days
Research error correction protocols	08-Nov-24	06-Nov-24	0 days
Define system requirements	13-Nov-24	11-Nov-24	0 days
Initial design for microcontroller board	19-Nov-24	14-Nov-24	0 days
Initial design for power board	19-Nov-24	14-Nov-24	0 days
Initial design for error correction board	22-Nov-24	20-Nov-24	0 days
Select off-the-shelf components	27-Nov-24	25-Nov-24	0 days
Detailed schematic design	04-Dec-24	28-Nov-24	0 days
PCB layout and design	11-Dec-24	05-Dec-24	0 days
Finalize software requirements	18-Nov-24	14-Nov-24	0 days
Code structure and programming design	22-Nov-24	19-Nov-24	0 days
Develop microcontroller programming	02-Dec-24	25-Nov-24	11 days
Assemble prototype circuit boards	17-Dec-24	12-Dec-24	0 days
Functional testing of circuit boards	23-Dec-24	18-Dec-24	0 days
Review and revise based on testing	26-Dec-24	24-Dec-24	0 days
Update power board design	01-Jan-25	27-Dec-24	0 days
Update microcontroller board design	01-Jan-25	27-Dec-24	0 days
Update error correction board design	01-Jan-25	27-Dec-24	0 days
Manufacture revised PCBs	07-Jan-25	02-Jan-25	0 days
Assemble updated prototypes	14-Jan-25	08-Jan-25	0 days
Integration testing	20-Jan-25	15-Jan-25	0 days
Thermal and vibration testing	23-Jan-25	21-Jan-25	0 days
Radiation and high-g testing	28-Jan-25	24-Jan-25	0 days
Full system assembly	03-Feb-25	29-Jan-25	0 days

Comprehensive system testing	07-Feb-25	04-Feb-25	0 days
Final validation and readiness check	12-Feb-25	10-Feb-25	0 days
Space environment simulation	17-Feb-25	13-Feb-25	0 days
Complete final documentation	20-Feb-25	18-Feb-25	0 days
Deliver final system	26-Feb-25	21-Feb-25	0 days

2. Please submit your **modified** Gantt chart / network diagram showing critical path through the Canvas upload link.

3. Identify the slack in your project **after** the change order. Using the template below:

Event	LOT	EOT	Slack
Research space-grade microcontrollers	05-Nov-24	01-Nov-24	0 days
Research power regulation circuits	05-Nov-24	01-Nov-24	0 days
Research error correction protocols	05-Nov-24	01-Nov-24	5 days
Define system requirements	08-Nov-24	06-Nov-24	3 days
Initial design for microcontroller board	19-Nov-24	14-Nov-24	73 days
Initial design for power board	19-Nov-24	14-Nov-24	73 days
Initial design for error correction board	20-Nov-24	18-Nov-24	0 days
Select off-the-shelf components	25-Nov-24	21-Nov-24	0 days
Detailed schematic design	02-Dec-24	26-Nov-24	0 days
PCB layout and design	09-Dec-24	03-Dec-24	0 days
Finalize software requirements	18-Nov-24	14-Nov-24	0 days
Code structure and programming design	22-Nov-24	19-Nov-24	11 days
Develop microcontroller programming	17-Dec-24	10-Dec-24	4 days
Assemble prototype circuit boards	23-Dec-24	18-Dec-24	0 days
Functional testing of circuit boards	30-Dec-24	25-Dec-24	0 days
Review and revise based on testing	02-Jan-25	31-Dec-24	0 days
Update power board design	08-Jan-25	03-Jan-25	0 days
Update microcontroller board design	08-Jan-25	03-Jan-25	0 days
Update error correction board design	08-Jan-25	03-Jan-25	0 days
Manufacture revised PCBs	14-Jan-25	09-Jan-25	0 days
Assemble updated prototypes	21-Jan-25	15-Jan-25	0 days

Integration testing	27-Jan-25	22-Jan-25	0 days
Thermal and vibration testing	30-Jan-25	28-Jan-25	0 days
Radiation and high-g testing	30-Jan-25	28-Jan-25	0 days
Full system assembly	05-Feb-25	31-Jan-25	0 days
Comprehensive system testing	11-Feb-25	06-Feb-25	0 days
Final validation and readiness check	14-Feb-25	12-Feb-25	0 days
Space environment simulation	19-Feb-25	17-Feb-25	0 days
Complete final documentation	24-Feb-25	20-Feb-25	0 days
Deliver final system	28-Feb-25	25-Feb-25	0 days

4. In no more than **200 words** explain what the implications have been on your project from the change order given to you by your client. You need to think about issues such as the slack in your project and your projects critical path.

The client's change order significantly impacted the project's structure by modifying task sequences, durations, and introducing new requirements, which affected both slack and the critical path. Previously, tasks with slack provided some flexibility, allowing adjustments without delaying the project. However, the change order reduced slack on several tasks, leaving less room for any delays or adjustments. Consequently, the updated critical path now includes additional tasks essential to meeting the client's revised requirements.

This increase in critical tasks means any delay in these areas could push back the entire project timeline. The reduced slack also limits the ability to reallocate resources flexibly, requiring closer monitoring and more precise coordination across teams to stay on schedule. While these changes ensure the project meets the client's new specifications, they also heighten the risk of delay, emphasizing the need for proactive planning and tighter control over task execution to avoid impacting the final delivery date.

Appendix – Meeting Agendas and Minutes



Project Management Module

Group 3 Virtual Project Management Committee

There will be a meeting of the above committee at 1pm on 30/10/2024 at the

Harold Cohen Library

Agenda

1. Apologies *[the secretary should indicate which members have apologised in advance for their absence]*
2. Approval of minutes of the previous meeting *[The minutes of the last meeting are correct; no changes are required]*
3. Matters arising *[changing order by using "slack method"]*
4. Review of progress on current tasks *[members who were allocated tasks should report on their progress]*
5. Allocation of future tasks *[the tasks and the responsible team member must be recorded in the minutes]*
6. Confirm the next Chairperson/Project Manager and Secretary. *[Bashayer Abukarbal "project manager", Wedad sed "secretary"].]*
7. Agree the date, time and place for the next meeting *[6/11/2024 , 1:00pm , At Harold Cohen Library.]*
8. Any Other Business *[No other Business]*

Project Management Module

Group 3 Virtual Project Management Committee

Minutes of the meeting on the 30th of October 2024

Group Name/Number:	Group 3	Meeting Date and time:	30/11/2024 13:00
Meeting Topic:	Task 2B	Location:	Harold Cohen Library

Attendees:	Munirah Alyatama (Project Manager)
	Bashayer Abukarbal (Secretary)
	Ghalya Aljassim
	Wedad sed
	Kitili Kisinguh
Apologies:	N/A
Absences:	N/A

1. Gantt Chart and critical Path

- Discuss how the amendments affect the overall project timeline.
- Explore strategies for managing tasks that are now on the critical path.
- Consider how color-coding aids in understanding project adjustments and tracking changes effectively.

2. Slack

- Explore the risks of relying on slack, methods for identifying non-critical tasks, and share real-life examples of successful slack management

3. Discussion

- Explain how the change order issued by your client affected your project. You should consider factors such as project slack and the critical path.

4. Allocation of future tasks

- B.Abukarbal to write up minutes and agenda
- All members to read through the task and share important points

5. Confirm the next Chairperson/Project Manager and Secretary

- Bashayer Abukarbal "Project Manager"
- Wedad sed "Secretary"

6. Agree the date, time and place for the next meeting

- Next meeting will take place on Wednesday the 6th of November 2024
13:00PM At Harold Cohen Library

7. Any Other Business

- NO other business

ACTIONS SUMMARY – For review at next meeting		
Future agreed Actions	Initials	Due date
• Bashayer. Ak to write minutes and the agenda for the next meeting	BA	30/10/2024
• All members review report instructions and make adjustments as needed.	ALL	30/10/2024