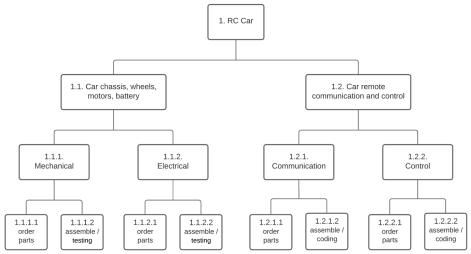
Capstone Planning Tables and Diagrams

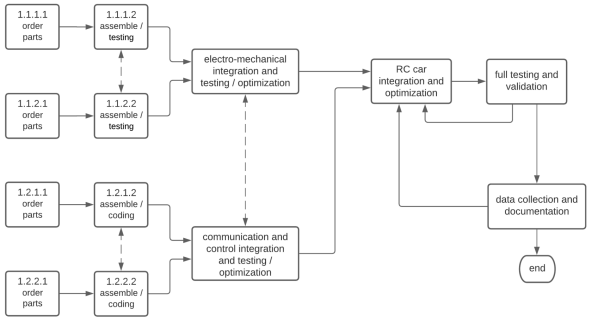
The project proposal and final report should include the following project planning tables and diagrams. The items shown here are examples only - while the form and style can differ, the tables and diagrams should clearly convey the information that they are intended for. Take care to make sure that the pixel quality of images and font is to a high standard.

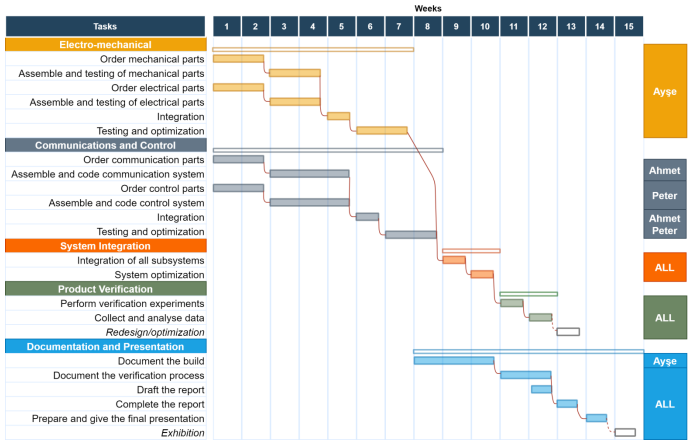
You can create high-quality flow charts, for example, at https://www.lucidchart.com/

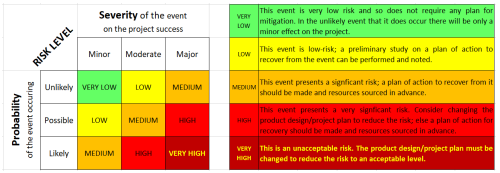


Task	Ayşe	Ahmed	Peter
Mechanical	**R**		
Electrical	**R**		S
Comm.		**R**	S
Control		S	**R**
Planning	S	S	**R**
Reporting	**R**	S	S
Integration	S	**R**	S

R = Responsible; S = Support

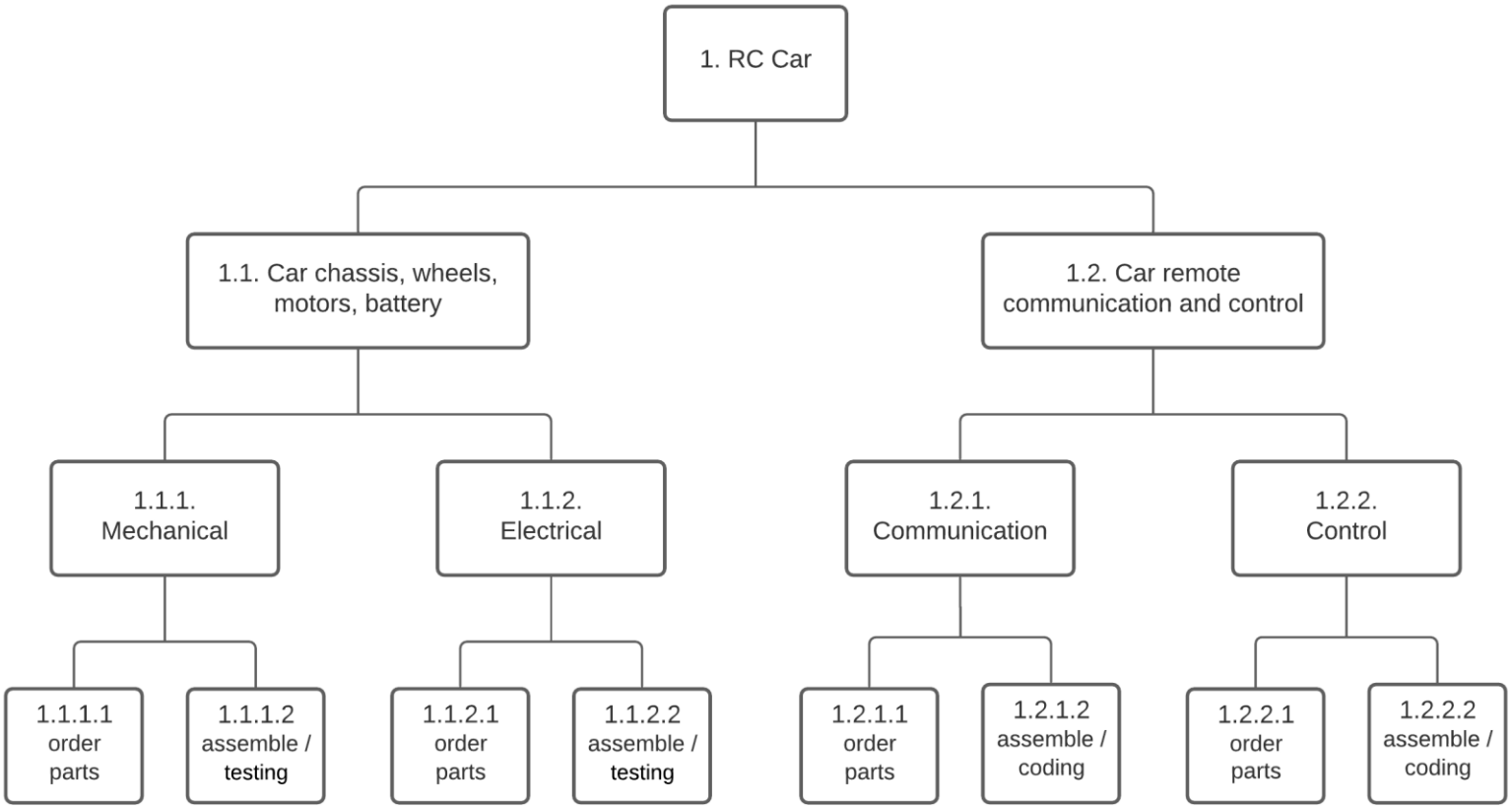






Failure event	Probability	Severity	Risk level	Plan of action
microprocessor failure	Unlikely This component is known to be reliable.	Major Would require replacing.	MEDIUM	Have a spare microprocessor at hand.
COVID-19 lockdown	Likely It seems likely that there will be at least limited access to school, and some team members might not want to travel.	Moderate This will make it more difficult to build and integrate subsystems.	HIGH	Redesign the sub-system communciation to work with Wifi, we can then integrate the subsystems over the internet if required. Make sure the team has the required kits to develop and build the sub-systems at home.
Not enough data to successfully train the A.I. system	Likely Preliminary studies indicate that we are going to need 100 times the data, we don't have time to collect that.	Major The required performance will not be reached.	VERY HIGH	The current A.I. design is too risky; replace with an alternative conceptual solution and reassess the risk.
3D-printing too expensive	Unlikely Current estimates are well within the budget, but they may increase later.	Moderate We have a tight budget and cannot exceed it.	LOW	Consider alternative ways to manufacture the parts, draw up some basic plans and note sources of materials.

Work Breakdown Structure (WBS)

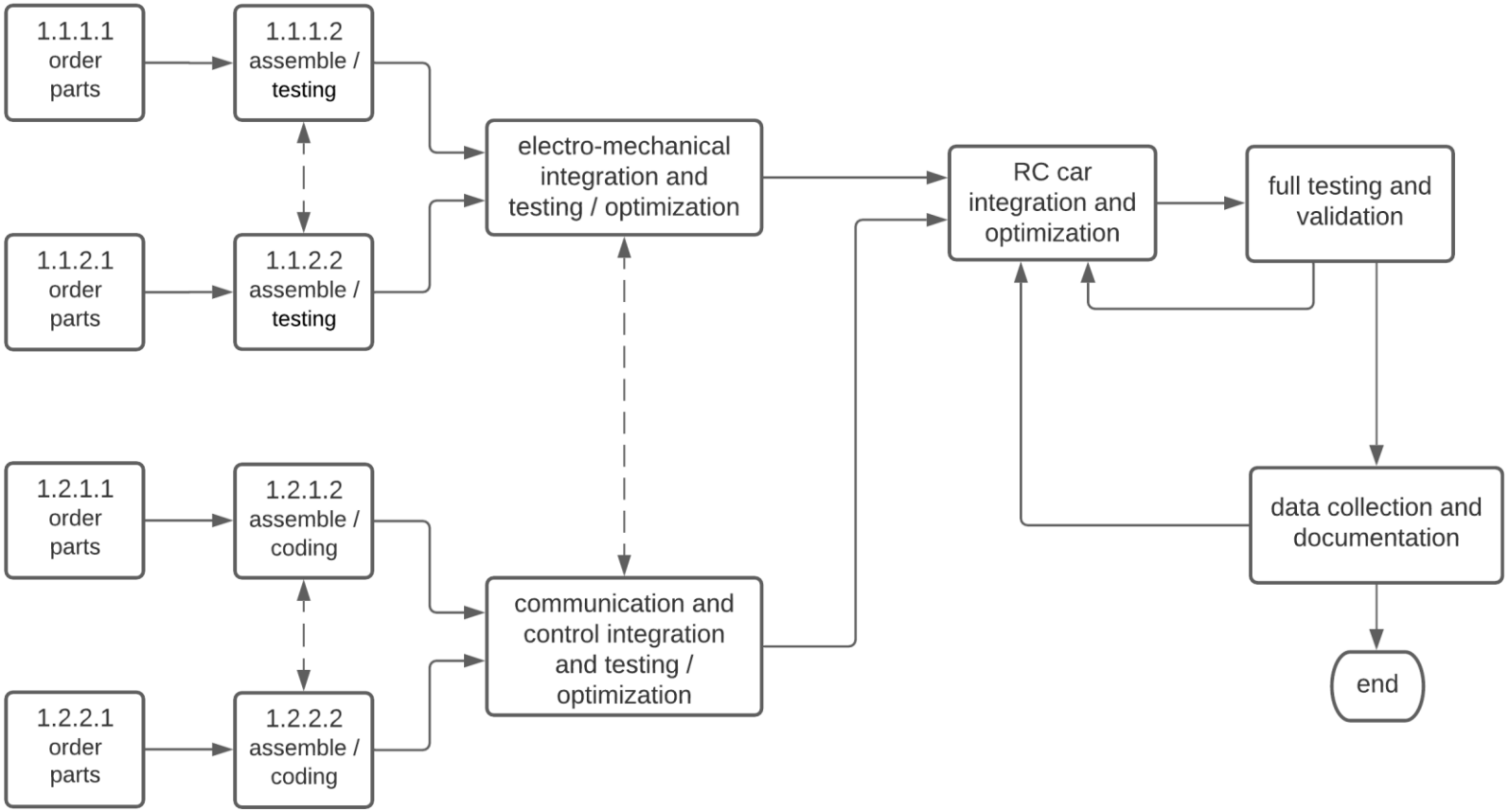


The Responsibility Matrix (RM)

Task	Ayşe	Ahmed	Peter
Mechanical	**R**		
Electrical	**R**		S
Comm.		**R**	S
Control		S	**R**
Planning	S	S	**R**
Reporting	**R**	S	S
Integration	S	**R**	S

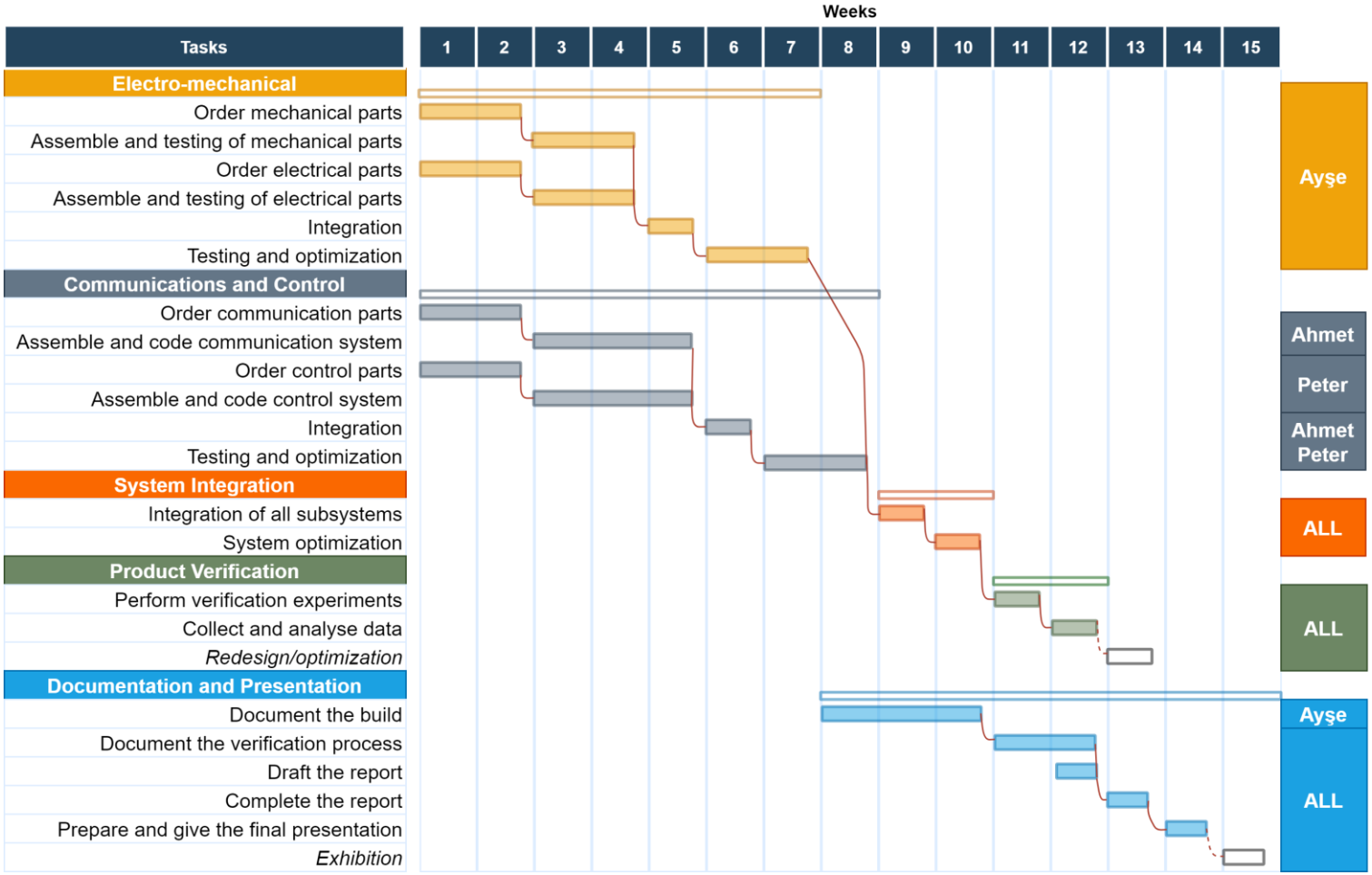
R = Responsible; S = Support

The Project Network



https://app.diagrams.net/

The Gantt Chart



The Risk Matrix

RISK LEVEL		Severity of the event on the project success: Minor	Moderate	Major
Probability of the event occuring	Unlikely	VERY LOW	LOW	MEDIUM
	Possible	LOW	MEDIUM	HIGH
	Likely	MEDIUM	HIGH	VERY HIGH

VERY LOW	This event is very low risk and so does not require any plan for mitigation. In the unlikely event that it does occur there will be only a minor effect on the project.
LOW	This event is low-risk; a preliminary study on a plan of action to recover from the event can be performed and noted.
MEDIUM	This event presents a signficant risk; a plan of action to recover from it should be made and resources sourced in advance.
HIGH	This event presents a very signficant risk. Consider changing the product design/project plan to reduce the risk; else a plan of action for recovery should be made and resources sourced in advance.
VERY HIGH	**This is an unacceptable risk. The product design/project plan must be changed to reduce the risk to an acceptable level.**

Risk Assessment Table

Failure event	Probability	Severity	Risk level	Plan of action
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COVID-19 lockdown	Likely It seems likely that there will be at least limited access to school, and some team members might not want to travel.	Moderate This will make it more difficult to build and integrate subsystems.	HIGH	Redesign the sub-system communciation to work with Wifi, we can then integrate the subsystems over the internet if required. Make sure the team has the required kits to develop and build the sub-systems at home.
Not enough data to successfully train the A.I. system	Likely Preliminary studies indicate that we are going to need 100 times the data, we don't have time to collect that.	Major The required performance will not be reached.	VERY HIGH	The current A.I. design is too risky; replace with an alternative conceptual solution and reassess the risk.
3D-printing too expensive	Unlikely Current estimates are well within the budget, but they may increase later.	Moderate We have a tight budget and cannot exceed it.	LOW	Consider alternative ways to manufacture the parts, draw up some basic plans and note sources of materials.