

Checkpoint 3:

Automated Garage Detailed Design Review & Functional Prototype

Prepare a presentation for your teacher and class that explains:

1. How your research influenced your design
2. How your prototype works to solve the problem and meets all of the requirements within the RFP

Tip: You can only receive points for what is in the presentation. Make sure that you talk about everything that your team did and show it, or it will not be counted.

Time Limit: 10 minutes + 5 minutes for questions

Checkpoint 3 has three rubrics for scoring. The first score is for your presentation. The rubric is below. The second score is for your functional prototype. That rubric is on the next page. The third score is for your engineering journal. That rubric is in a separate document that is labeled as the engineering journal rubric.

Functional Prototype Presentation Rubric		
Criterion	Description	Yes/No (worth 5 pts.)
Presentation Quality		
Structure	Points are in a logical order and flow smoothly.	X5
Slides & Visuals	Points are well-supported by the sketch or other visuals.	X5
Delivery	Presenters appear to know what they are talking about (not just reading slides/cards) and stay within the time limit.	X5
Research Quality		
Correctness	Research satisfies all of the necessary criteria.	X5
Reasoning	Clearly explains the key functions of the prototype	X5
Group Work		
All members know content	All team members demonstrate an understanding of the content during the presentation or Q&A.	x5
Total		/30

Automated Garage Functional Prototype		
Criterion	Description	Yes/No (worth 10 points)
Functional Prototype		
Mechanics	Prototype has four parking spaces that can be moved so that the correct available space is accessible.	X 10
Interface	LCD display asks users whether their car needs to enter or exit.	X 10
Control System	The robot can identify each parking space using colors.	X 10
Sensing Systems	The robot can determine which spaces have cars in them, which are available, and which the user wants to access.	X 10
Alert System	The garage sounds an alert when it is in motion.	X 10
Total		/50