

AGV Technical Report

**E-Portfolio Link!**

<https://m-jeide.github.io/eng-portfolio/CIM/AGV>

AGV Robot



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CIM-Period 2  
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**These same headings need to be placed in your Engineering Portfolio. The final grade will be received from the files on both this template and the Portfolio.**

**Directions:** All words in green, red, or blue must be replaced with your own information and changed to black non-italic font.

**Abstract:**


Provide a brief description of the overall project. Answer questions such as:

1. The purpose of the project was to create an autonomous car that can safely follow a color line to locate and secure cylinders or bombs.
2. The car had to be under 12 inches tall and wide as well as use 3 motors with a start and emergency stop button.
3. Around two weeks were spent on the project.

**Concepts**



This project addresses the technical concepts and design process around an AGV car. The project focused on effective planning, communication, and design in order to have the AGV car safely accomplish its task.

**Materials List with Total Cost of Machine:**

 Preston Maxwell - W4: CIM AGV Cost Analysis`

**Procedure:**


*List the procedure used to complete the project. Include the following:*

1.  AGV robot code
2.  AGV Robot Photos


3. [https://youtu.be/hxWdUJ84C\\_E](https://youtu.be/hxWdUJ84C_E)

*Provide enough detail so that someone with a basic understanding of the concepts could re-create the project.*

**Concept Sketches:** Hand drawings of the original sketch ([Isometric Paper Required](#))

 W2: Automated Guided Vehicle Sketches (Aug 21, 2025 at 9:55 AM).pdf

 AGV Design Sketch

 Matthew\_Sketch.pdf#zoom=100.pdf

**Technical Drawings:** The drawings are to be created on Fusion 360 using the provided VEX Part files.

 AGV Assembly Drawing v2.pdf

### Conclusion:

Summarize the project by answering the following questions in complete sentences. The conclusion must be well written in the voice of a future engineer:

1. For our project we felt the way we worked as a team was effective. Each of us worked outside our strengths trying new things which lead to some complications, but overall our code and design worked very well with minor issues.
2. If we could change one thing about this project the main thing would be switching each of our roles to our main strengths. For example Matthew coding and Preston building the physical robot instead would have sped up the project and lead to less complications along the way.

**References:**

*All references must be listed in APA format*

Chang, G. [vindow]. (2024) VEX-CAD-Fusion-360-Library (Version 2.0.2) [Data set]. GitHub. <https://github.com/vindow/VEX-CAD-Fusion-360-Library>