

FreeWheel

Background

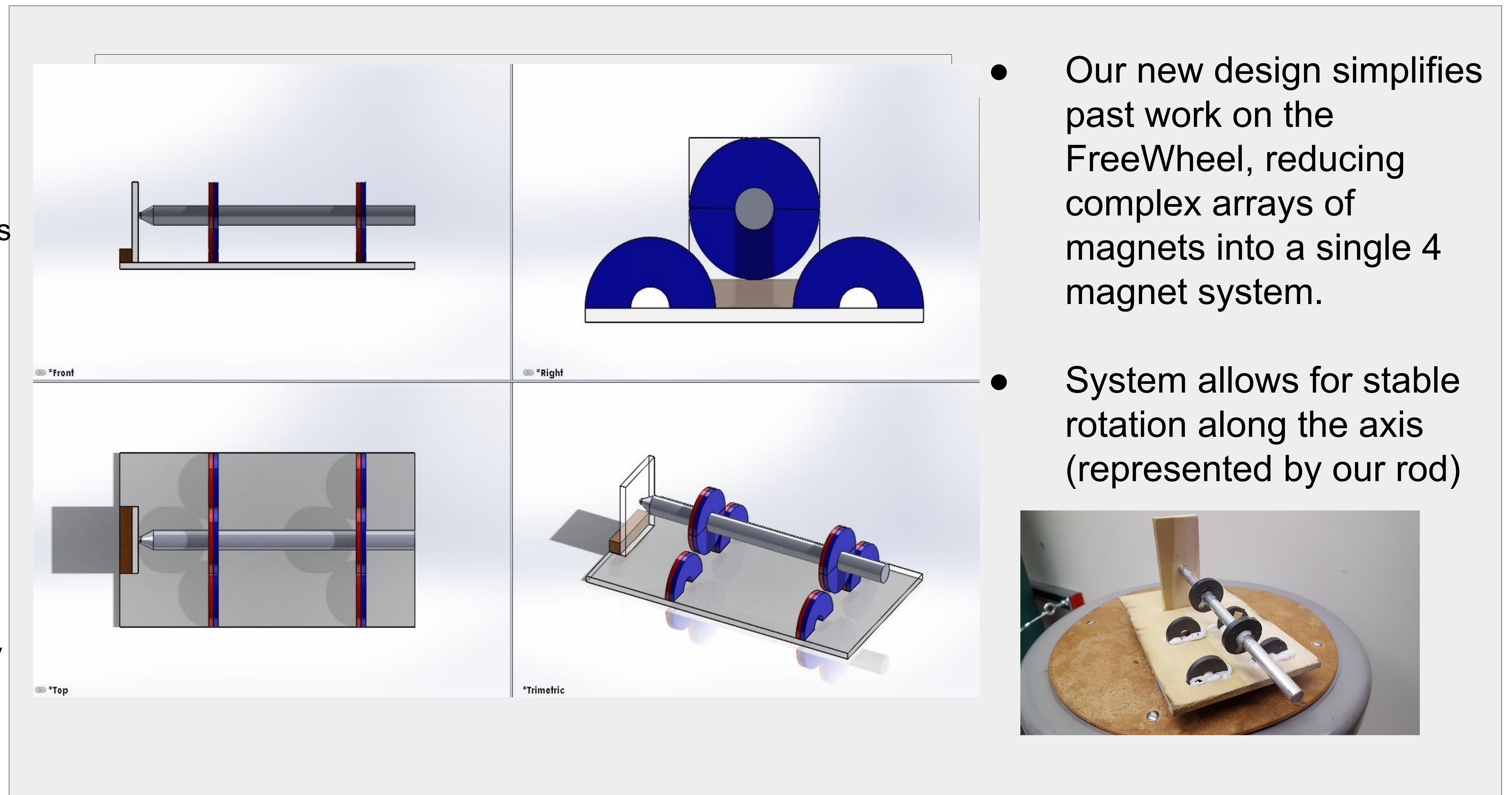
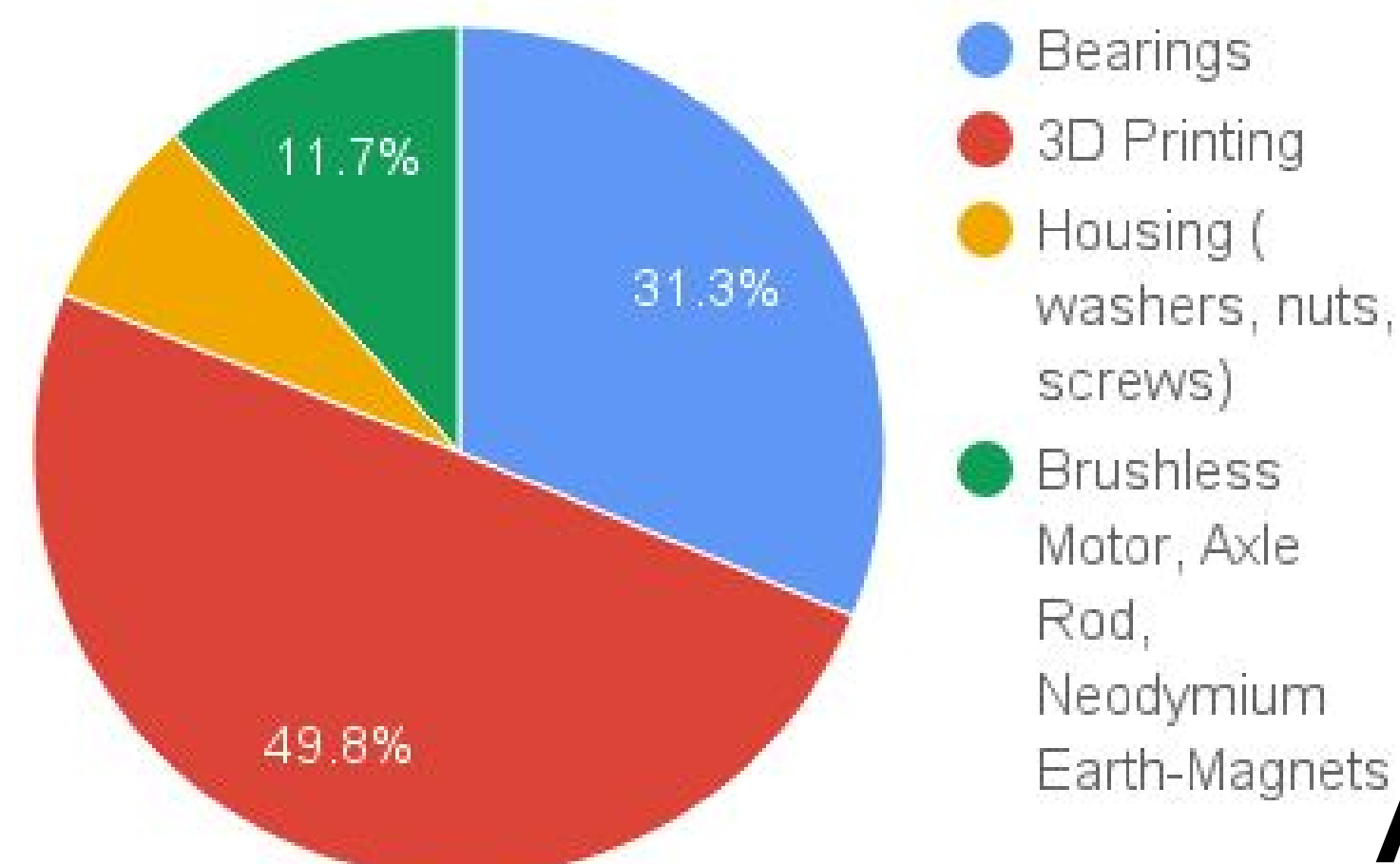
Currently, suspensions comprise of a system of highly fricative gears connected to the engine. Each introduced contact point saps a little bit of the engine's output, and creates engines that have low mileage ratings and require refueling or recharging.

Mission

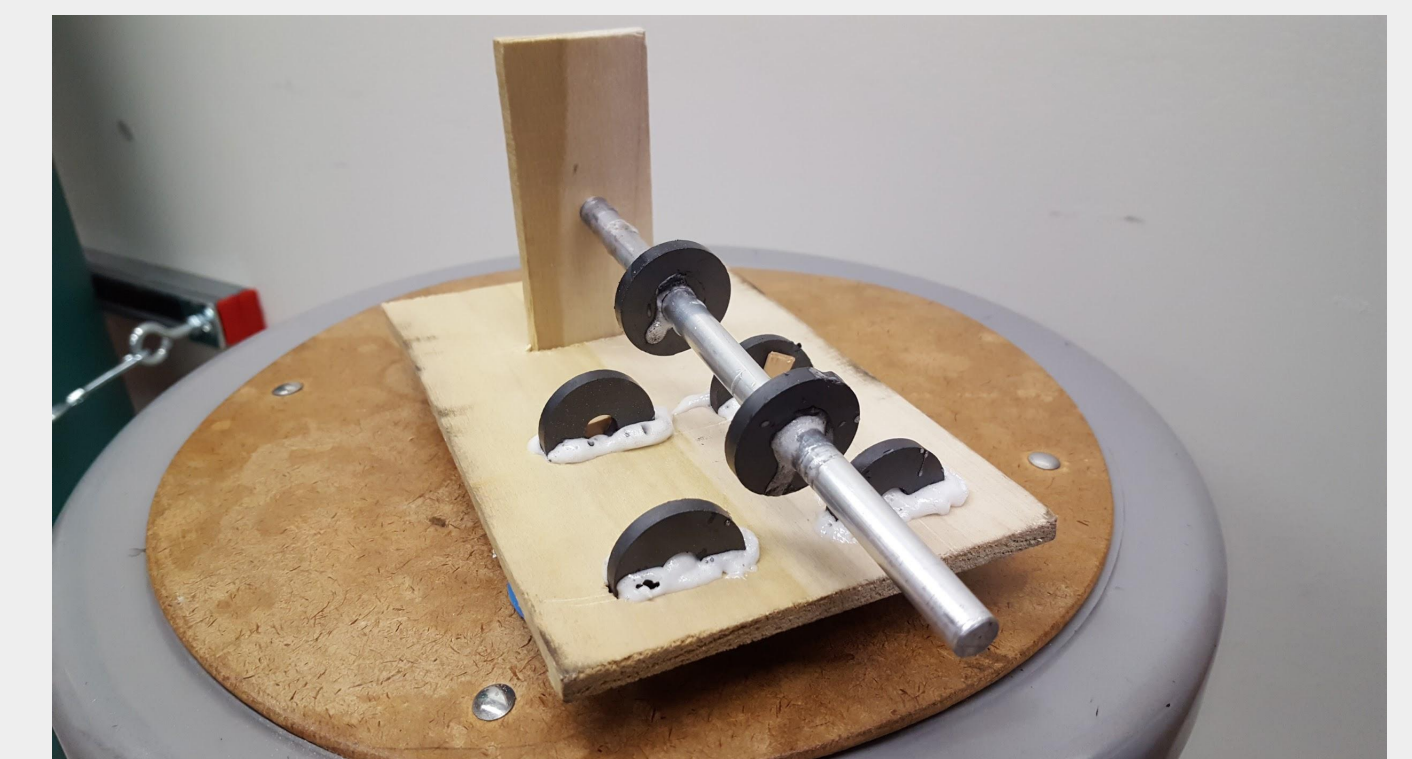
Our project's goal is to virtually eliminate these existing, inefficient suspension systems in today's cars by creating a magnetically levitating suspension, making contact with the body of the vehicle only at a single, low-friction point.

Cost Breakdown

Budget = \$2411.64



- Our new design simplifies past work on the FreeWheel, reducing complex arrays of magnets into a single 4 magnet system.
- System allows for stable rotation along the axis (represented by our rod)



Fall

- R&D a simplified prototype
- Experiment with different bearings

Winter

- Implement electromagnets to prototype
- Begin R&D of a controls system to supplement the electromagnets

Spring

- Introduce magnetic rotation
- Finalize the controls system

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