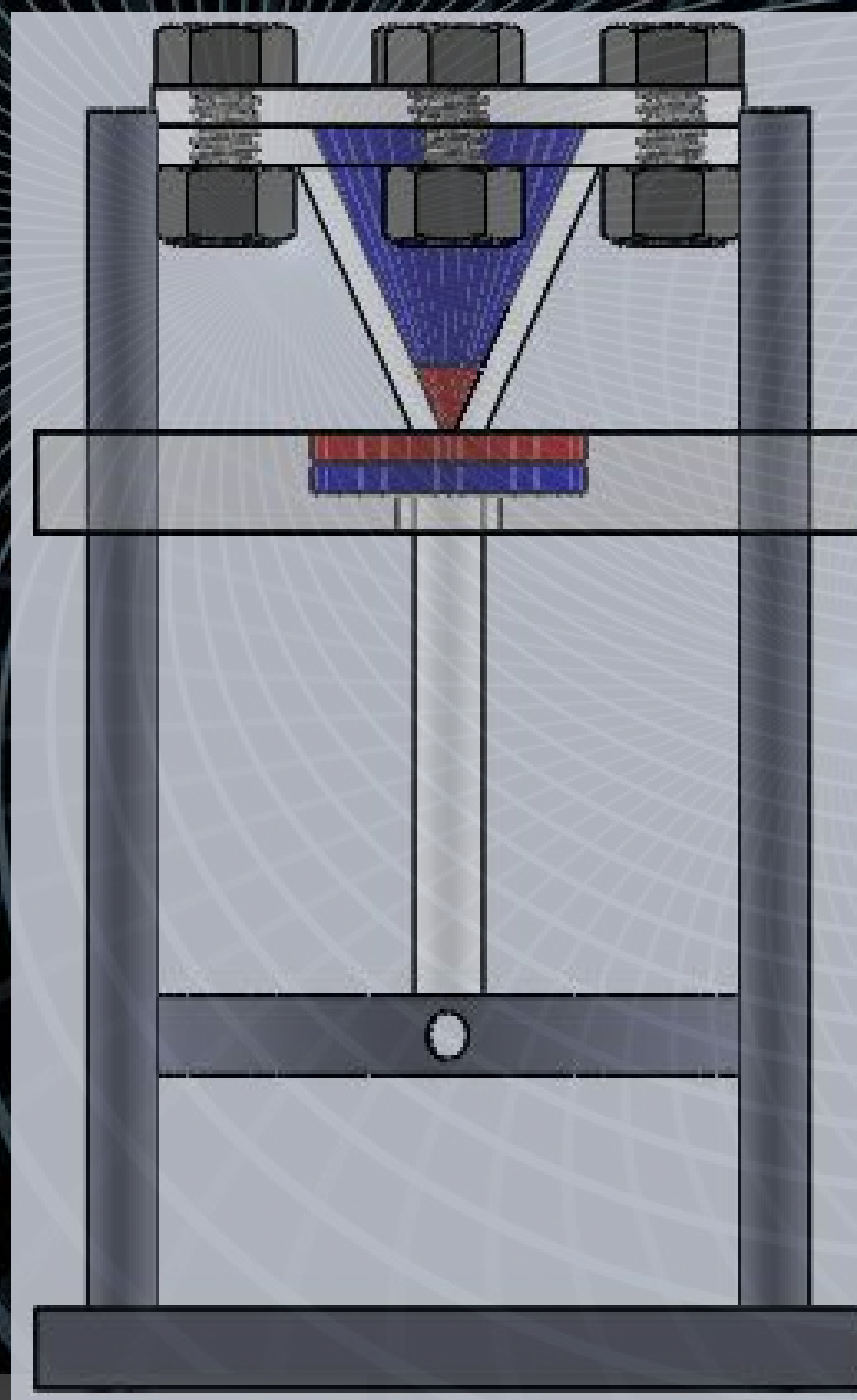


Mission

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.

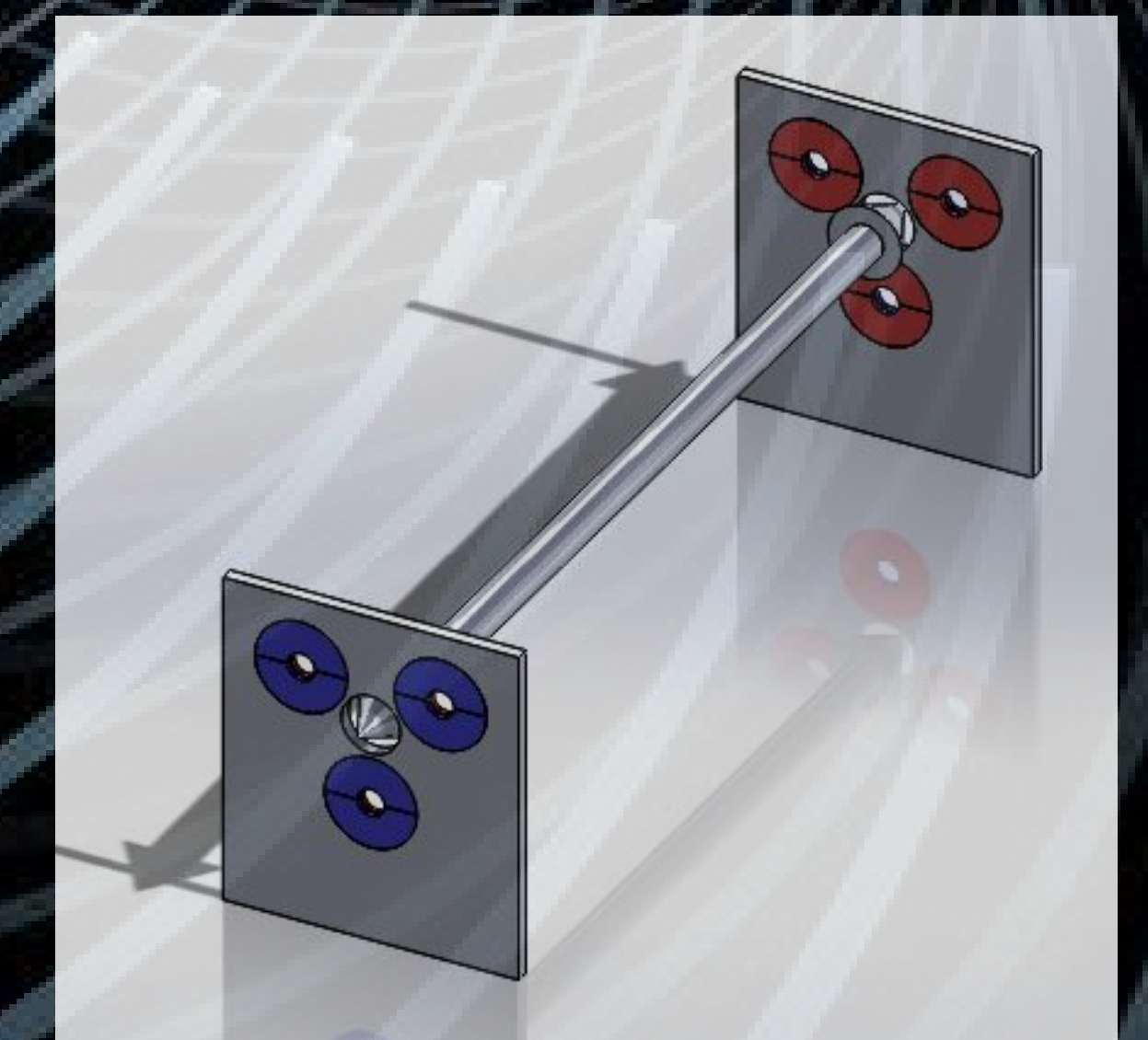
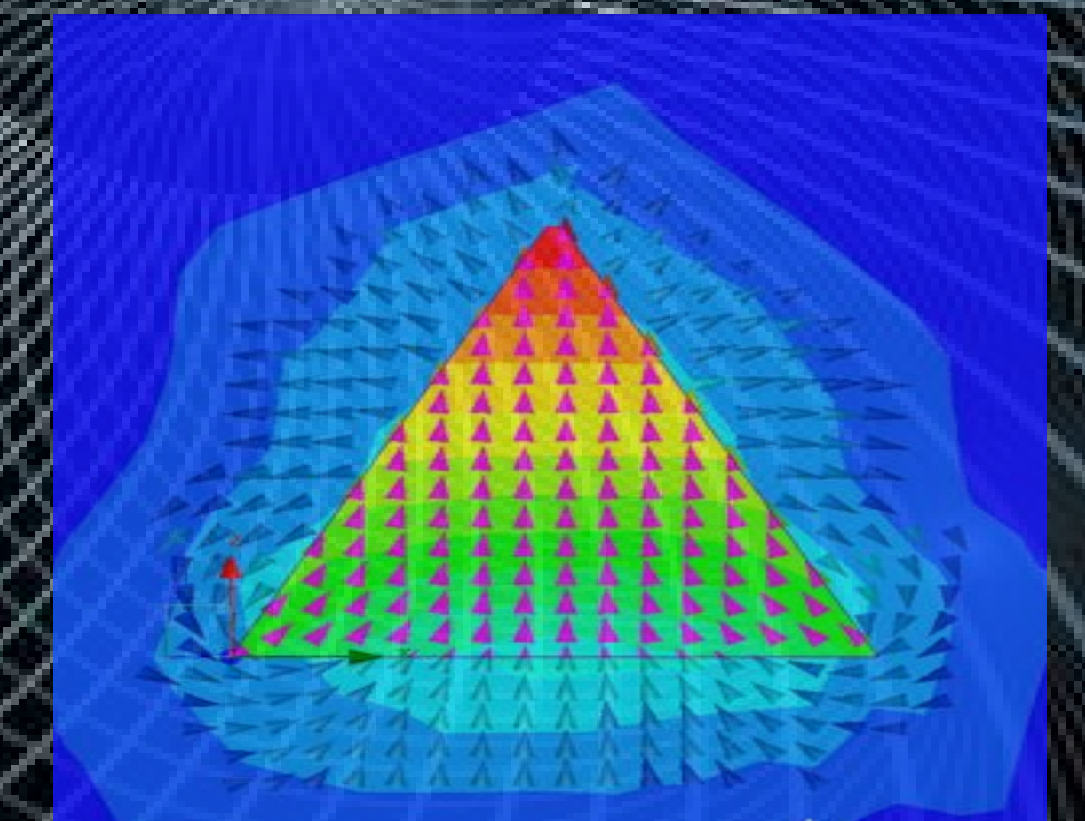
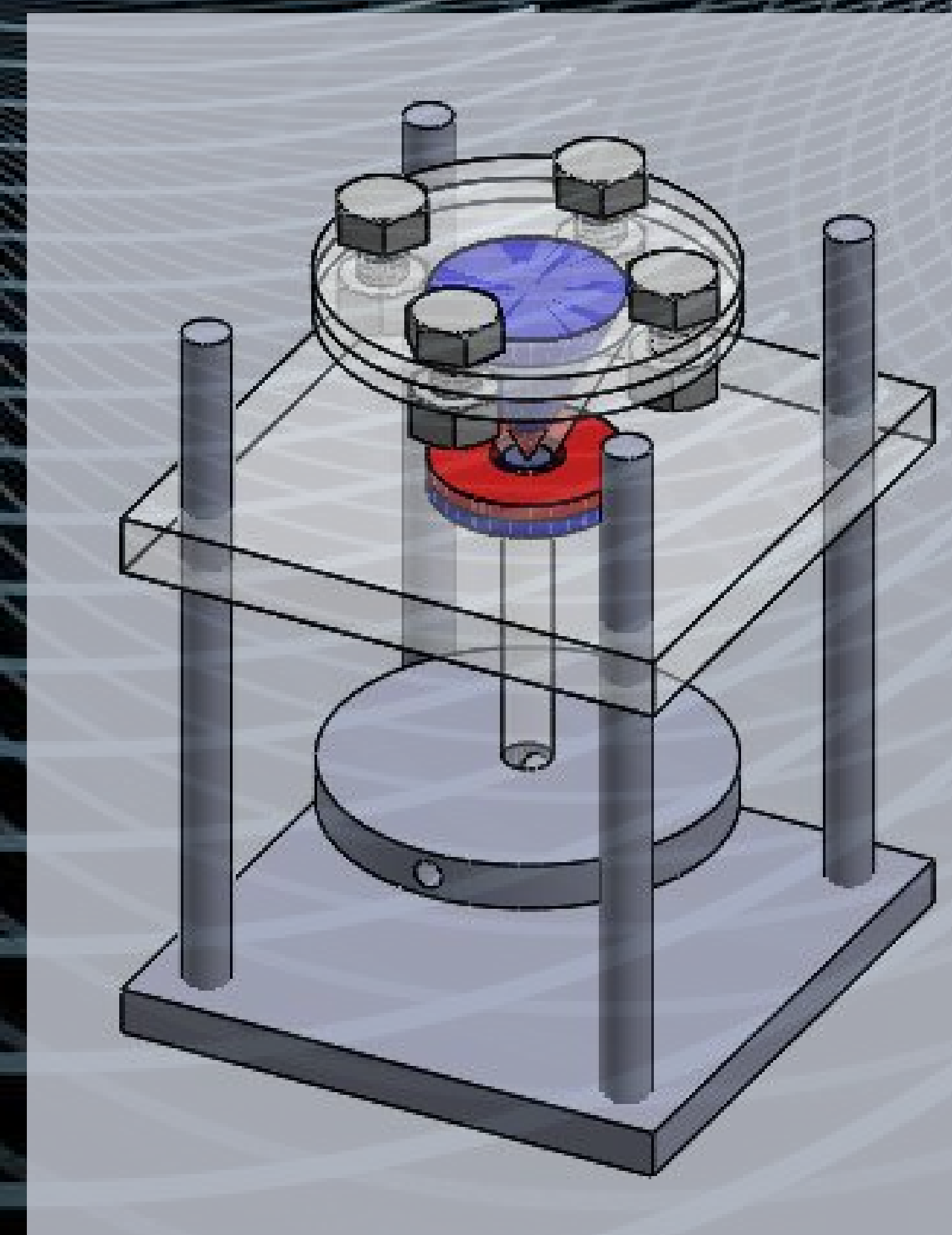
Design

Our new model utilizes a hanging weight design to allow us to test various parameters of the system, including pull/push weight and stability (with error), to help us better design our final product.

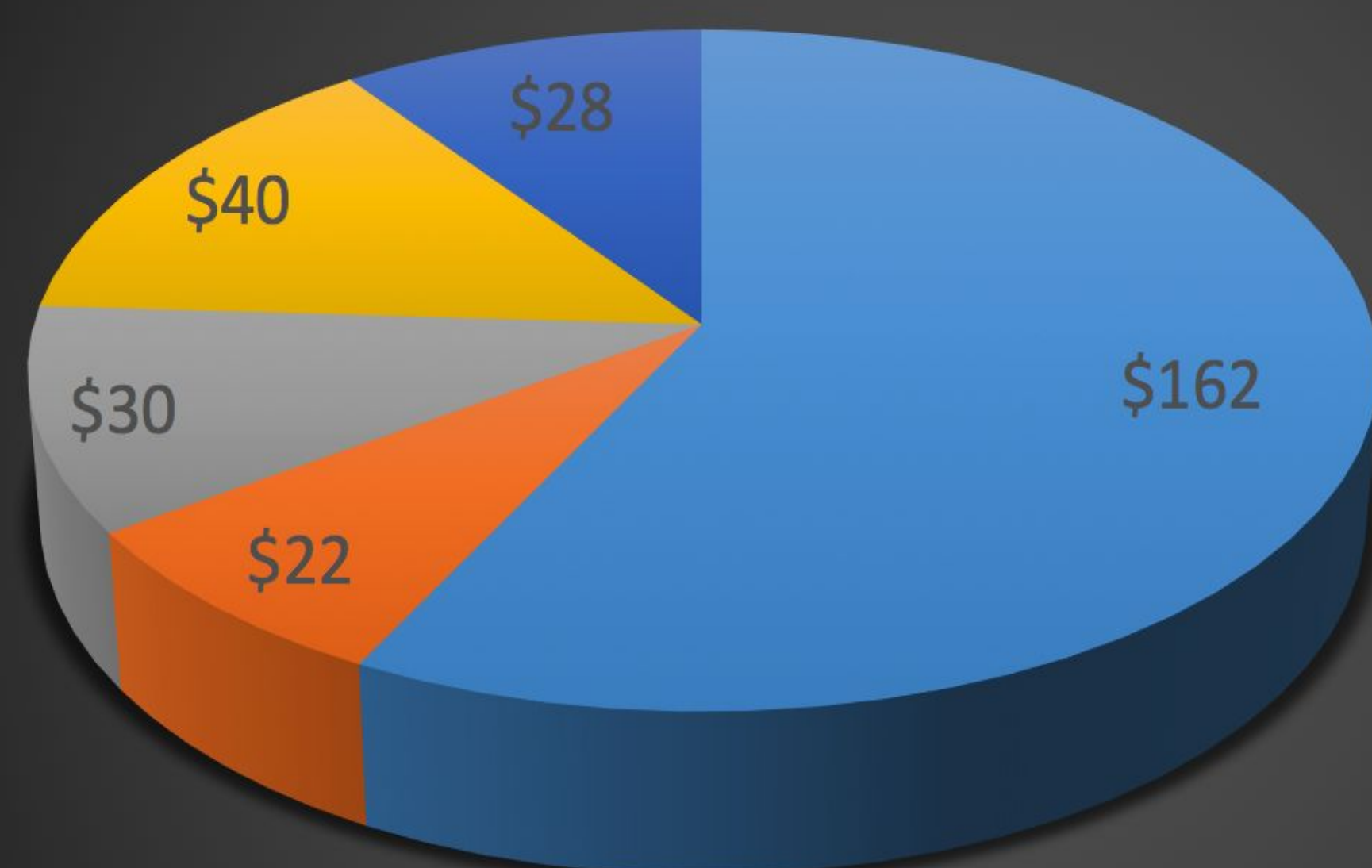


Free Wheel

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.



Cost



- Magnet
- 3D printing
- Fasteners
- Machining Cost
- Build Materials

Timeline

Fall

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

Winter

- Vertical design using conical magnet
- Test stability using weights

Spring

- Horizontal design using complementary conical magnets
- Attach motor-generator

Advisor: Yun Wang; Team Members: Siddharth Baranwal, Tandy Li, Suchith Shantharaj