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Outline

- Introduction
    - Creating replicas of real life engineering mechanisms that can run accurately in a game environment in real time, while also being able to be manipulated by a user in a way that they can get a better understanding of how it works and use it as a learning tool.
- Background/Purpose
    - Create accurate 3D Models that could be used for learning purposes
    - STEM Learning with games
    - Should be replicable with variations based on modifying input parameters
    - These parameters need to create accurate models, that interact with accurate physics
    - Should work in a game, so need to function in real time
    - Explore how close physics engines in game engines replicate expected real world physics
    - What modifications can be made to make these tools more accurate?
    - Does accuracy need to be sacrificed to create faster running models to meet the real time expectations?
- Looking into Comparisons of Physics Engines in Game Engines
    - Summarize results of other papers
    - Look into those results and see which may best suit the accuracy of real engineering mechanisms
        - May focus on collision detection
        - Collision penetration
- Informal Learning through Games
    - See what can aid in informal learning with games
    - See if these could be implemented into something along side these mechanisms to create an interesting game
- Conclusion
    - How can we combine the information on various physics engines in games, with the information on informal learning with games to create an accurate representation of engineering mechanisms in a game that can invoke learning responses in users?