

OBJECTIVE

This project aims to reduce the cost associated with microchip fabrication clean room training. The training is generally very costly, and candidates are not fully aware of the environment until significantly into the training.

BACKGROUND

Clean rooms are areas that require extensive training and preparation. Microchips are sensitive to outside contamination and mistakes are very expensive. This requires training which is very expensive and often not realistic.



VALUE PROPOSITION

Our project simulates the training needed which saves time, money and misunderstanding.

REQUIREMENTS

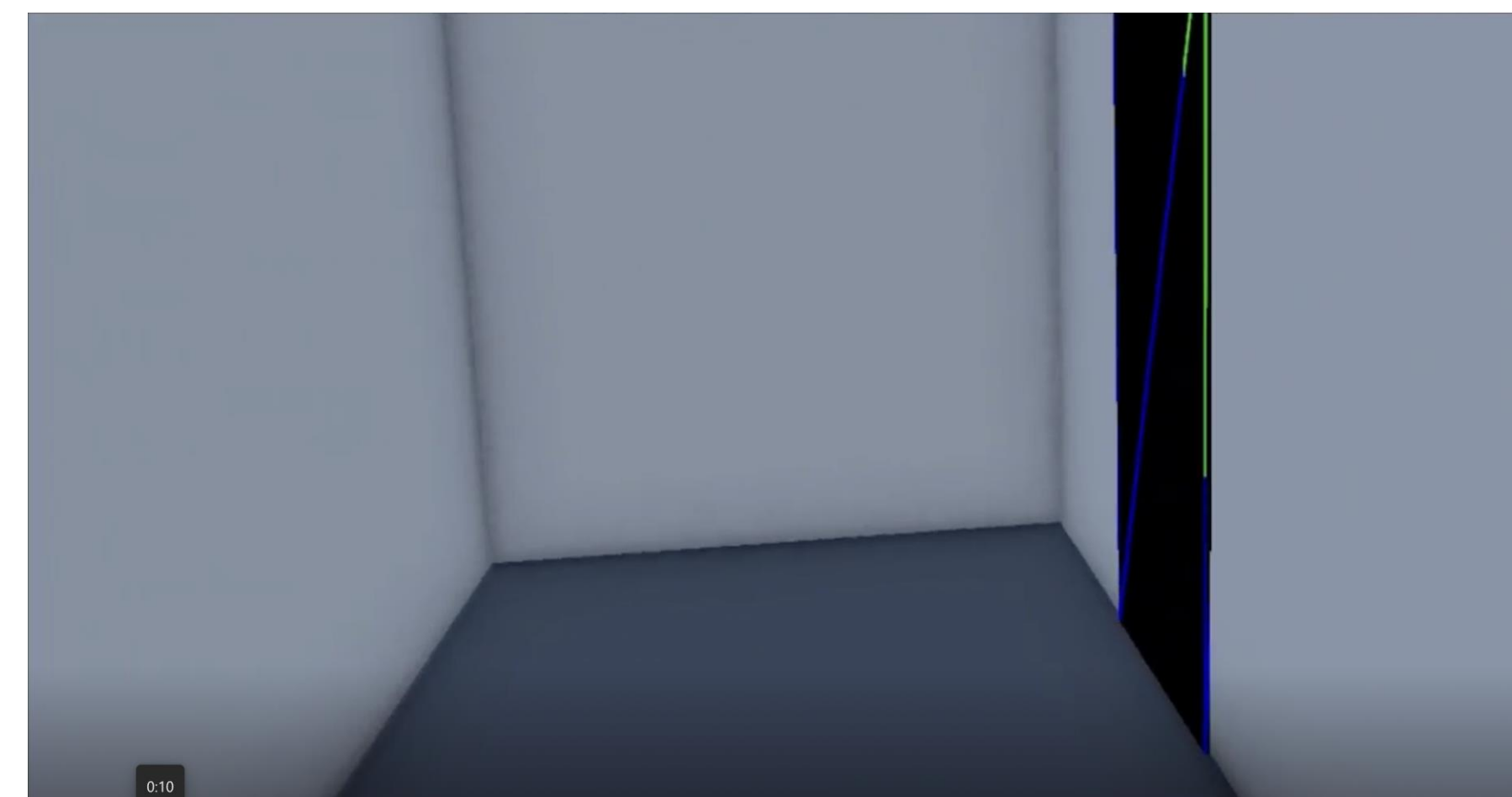
- Clothing Interaction
- Multiple Rooms
- Clean Room Equipment
- Object interaction

CONCEPTUAL DEVELOPMENT

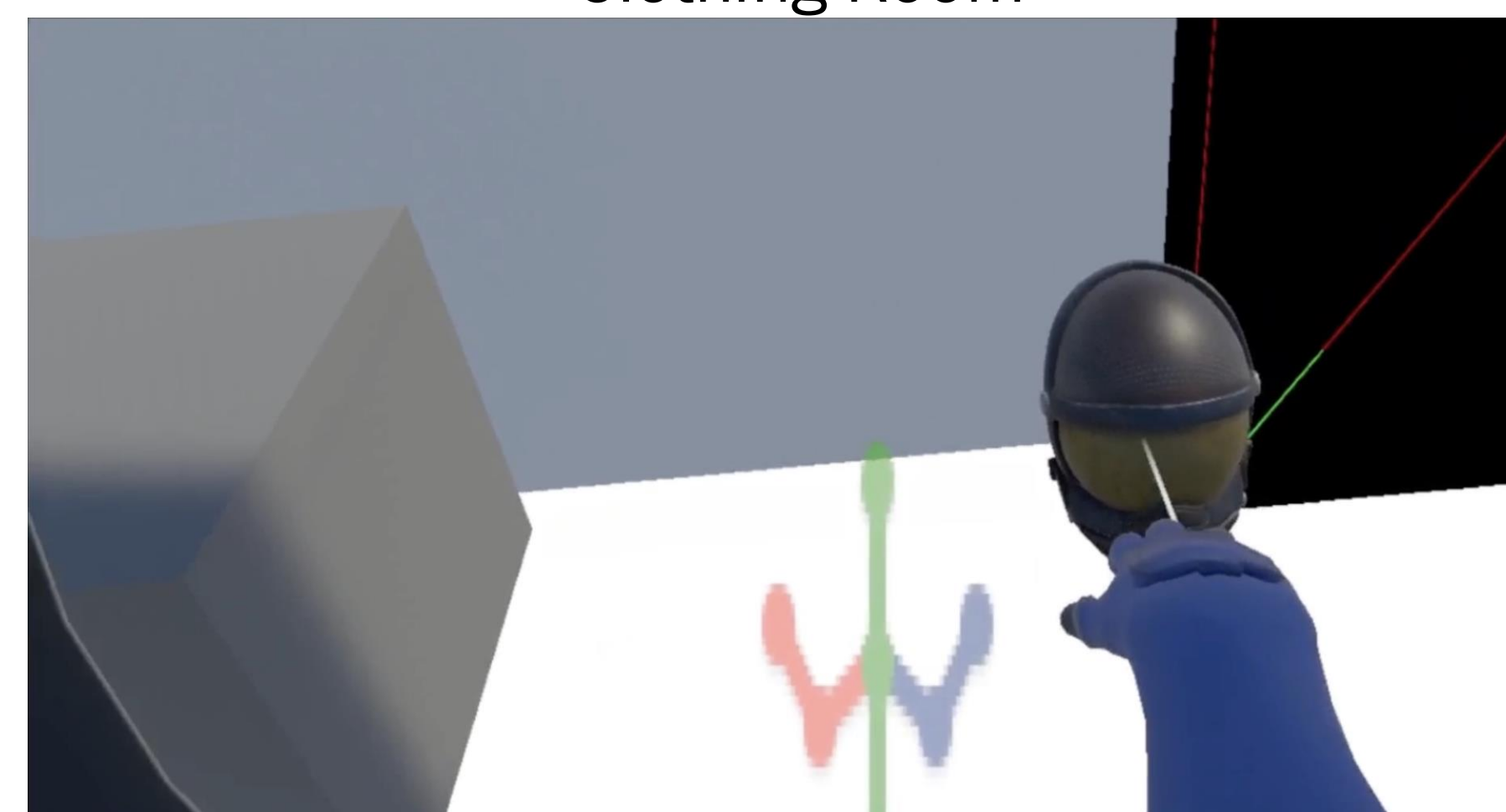
We started broad and grand with our concepts of the final product. Through trial and error in development and testing; our concepts were defined and refined to better fit the skill and time we possessed.

FINAL DESIGN

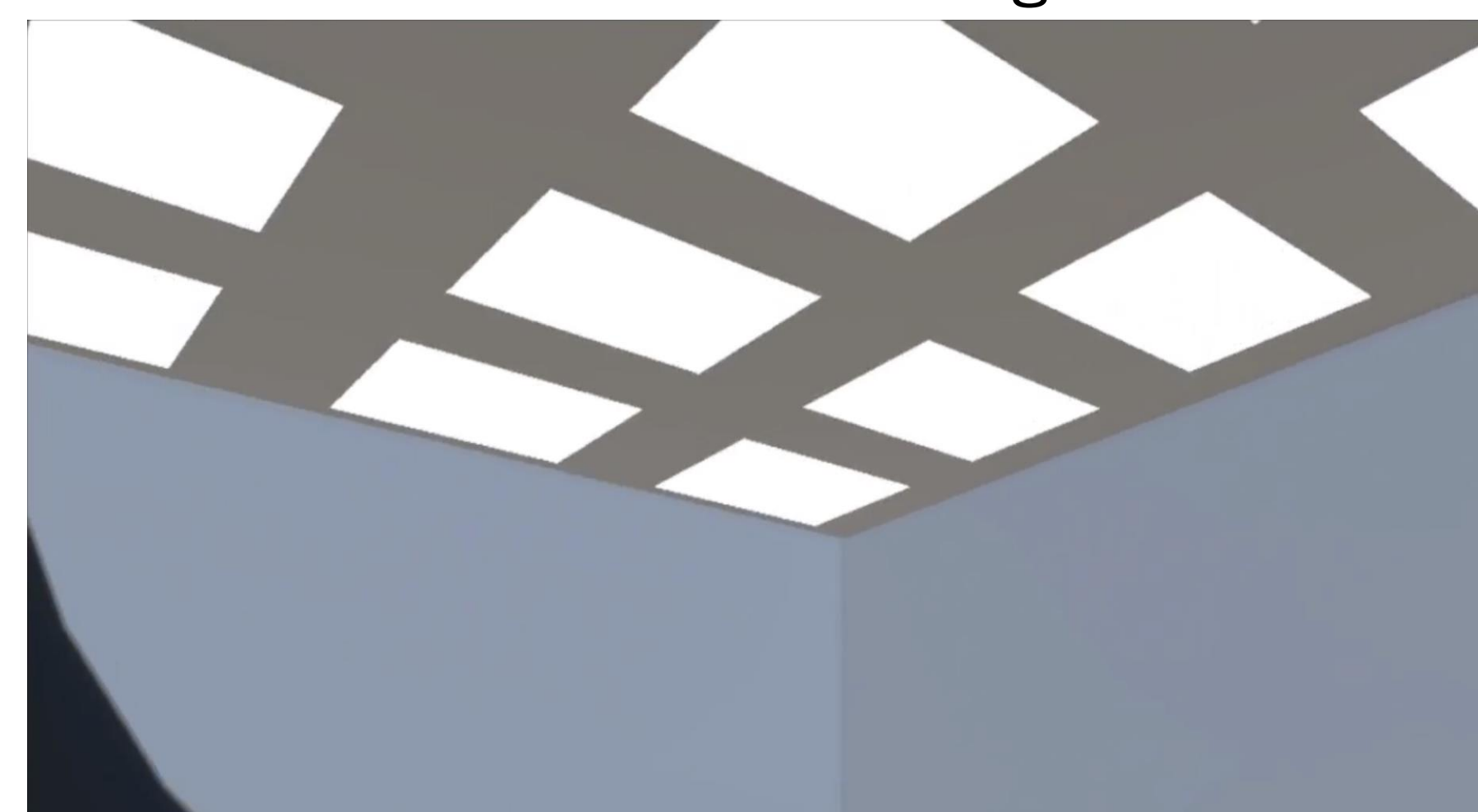
Entrance Room



Clothing Room



Clean Room With Lights



VALIDATION

We were able to create the three main rooms that were required. We setup the physics to ensure the basic interactions worked.

- The clothing is not custom as of yet, but we created a system to put on the clothing and have real time changes to reflect that.
- The clean room equipment is limited but we created models that can be used by the next team. The current equipment includes the clothing and the lighting.

CONCLUSION

This project reduces cost and safety hazards that go along with training for a clean room. We believe we have created a good foundation for the next team to take over and show how vital a project like this truly is. Recommendations we have for this project are to ensure it stays scalable and realistic. If we had more time, we would have invested a lot more in putting basic visuals in rather than ensuring everything is interactive.

ACKNOWLEDGEMENTS

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Instructor: Bruce Bolden

Graduate Mentor: Jiaqi Shi