

# Final Project Midway Report

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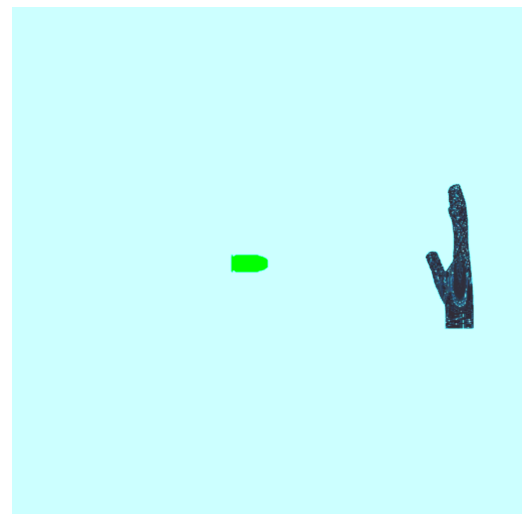
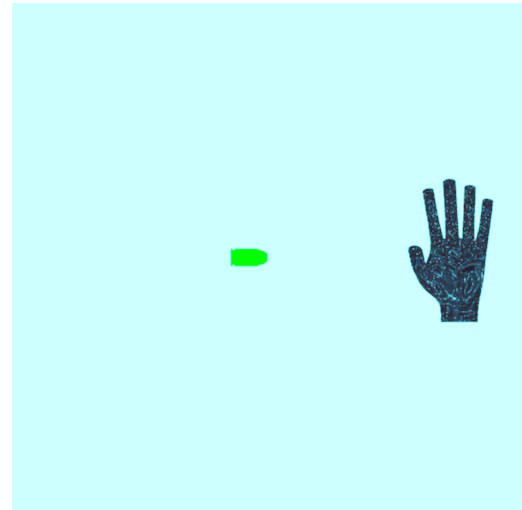
## What We Implemented

For the project we have correctly loaded the bullet obj file and the hand obj file. We also were able to correctly texture map an image onto the hand to make it look like a tech glove.

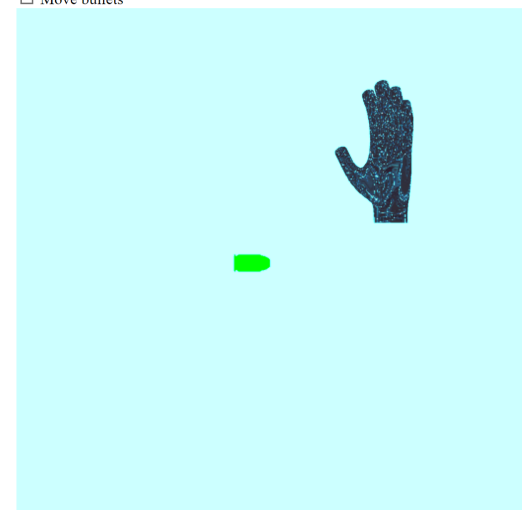
We were also able to implement two cameras: one static orthographic camera on the bullet and one orthographic camera that revolves around the hand in a circular motion.

We were able to implement many interactive features involving the hand. We have a feature where you are able to stop the camera from rotating around the hand by checking a checkbox. We also have a feature where you can rotate the camera around the hand by using a slider bar once the checkbox for stopping camera movement is checked. We also have a feature where you can move the hand to certain positions on the canvas by clicking on the location with the mouse (only the right half of the canvas because the left half is reserved for the bullets).

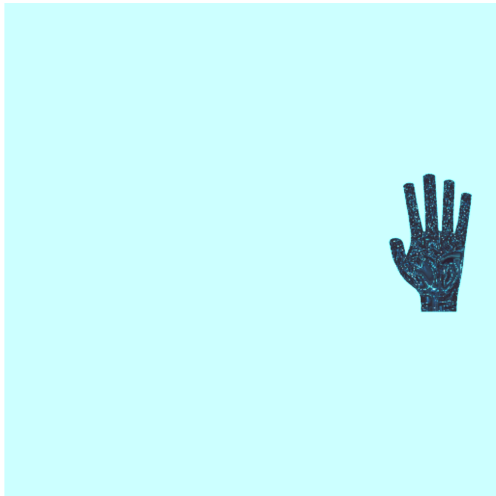
We were able to implement many interactive features involving the bullet as well. We have a feature where you can make the bullet disappear by checking a checkbox. We also have a feature where you can make the bullet move left and right in a straight line. We also have a feature where if the bullet passes the hand, a popup box occurs once saying you have been hit. The popup box feature has many instances where it looks incorrect (the bullet passes the hand but there's no popup) because we are simply comparing the x position of the bullet with the x position of the hand. Depending on the time constraints, we might try to make it better.



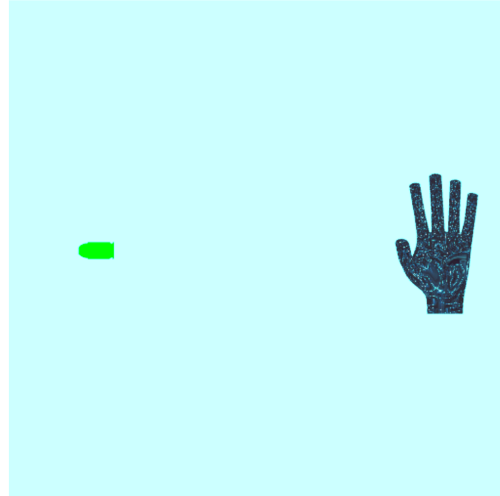
-2 theta  2 theta  
☒ Stop the camera  
☐ Toggle bullets  
☐ Move bullets



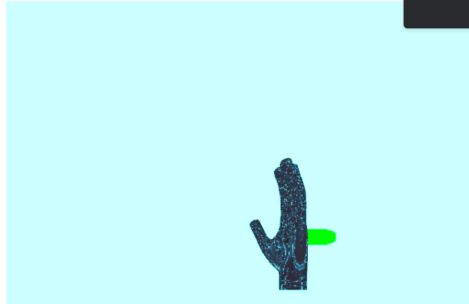
-2 theta ■ 2 theta  
☒ Stop the camera  
☒ Toggle bullets  
☐ Move bullets



-2 theta ■ 2 theta  
☒ Stop the camera  
☐ Toggle bullets  
☒ Move bullets



-2 theta ■ 2 theta  
☒ Stop the camera  
☐ Toggle bullets  
☒ Move bullets



localhost:8000 says  
You got hit  
OK

## Challenges Faced / Changes to Proposal

We are currently missing lighting/shading, reflective mapping, instancing. We have been trying to work on instancing the bullets but we haven't been able to finish that by the midway report. As mentioned in the proposal, if we are unable to properly instance the bullets, we will end up loading a few more bullets by using an obj loader.

Another challenge we faced was trying to get one camera to rotate around the entire scene but we weren't able to do that which is why we decided to use 2 separate cameras instead. Our proposal wasn't very specific about how we were going to implement the camera(s) so we believe this is acceptable.

Another challenge that came up was trying to have a background image on the canvas. We thought that you needed a background image so that you can implement reflective mapping but after speaking with the professor, we found out that wasn't the case. Depending on how much time is left, we might end up leaving the canvas white. We never specified that we were going to have a background image so we believe this is acceptable.