



**Figure 1:** Wheatley’s mesh extracted via the official copy of Portal 2 and imported in Blender

## Character Choice and Augmentation Plan

### Character Choice

I am choosing the character “Wheatley” from the game “Portal 2” for this assignment. “Wheatley” is an “intelligent personality core”. These are purpose built (therefore having a distinct personality) robots with spherical shape that can attach to and control any electronics in the game. More info about this character can be found here – <https://theportalwiki.com/wiki/Wheatley>. Despite a somewhat simpler geometry, these personality cores can convey a lot of emotions as shown in this clip from the game – <https://www.youtube.com/watch?v=rWVGupqvCL8>.

### Animation Plan

For my video, I plan to start with a shot of my laptop that has a “Wheatley” wallpaper. In the first part of my video, I close my laptop and put that in a bag. Then as I’m leaving the room, “Wheatley” appears on my table (as if he just escaped from my wallpaper) and attempts to start a conversation. Then the entire video will be me moving my camera around the table to escape the conversation and capture him somehow in the laptop again. The main challenges in animating this character will be getting the expressions right by moving appropriate parts of the sphere. As can be seen from the video linked above, each layer of the spherical robot along with the handles can be animated. Each of the parts move very subtly to create a convincing emotion. Getting that right will be challenging.

### Character Mesh

To get the character mesh, I simply used my own copy of Portal 2 I own through Steam (the official distribution mechanism). Assets extracted in this way are allowed to be used in non-commercial projects and therefore this should not be violating any copyrights. The mesh consists of 2 (upper and lower) handles, the outer shell, the inner sphere and the 2 “eye” lids. The inner sphere has 3 degrees of (rotational) freedom while every other part has upto 2 degrees of freedom. Refer to the figure above and the aforementioned video to see these degrees of freedom in action.

### References

1. [https://developer.valvesoftware.com/wiki/Blender\\_Source\\_Tools](https://developer.valvesoftware.com/wiki/Blender_Source_Tools)
2. [https://developer.valvesoftware.com/wiki/Animation\\_in\\_Blender](https://developer.valvesoftware.com/wiki/Animation_in_Blender)