

For my final project, I wanted to incorporate 3D printing more heavily into my 3D modeling workflow. My plan was to create a game piece that would light up when placed on the game board. There was mixed success. To begin, I modeled a character and rigged it so that it would be poseable. This way, I would be able to find the best, most balanced stance for the character to stand in reality. A big challenge was getting the eye hole to be large enough to house an LED, but small enough that it would fit snug. Even though I bought 3mm LEDs, the cap around the bottom of the LED was wider - the melting of the filament also meant that sometimes the hole was not as wide as the model specified. After three different iterations, I had finally printed a model that had the right-sized hole to house the LED lights for the eyes. The parts would warp after being removed from the bed, so I had to sand it perfectly flat in order to ensure a proper fit. To keep the wires from crossing, I used hot glue to separate them and secure them to the housing. To attach the two halves of the shark, I used regular super glue. The LEDs are powered with a 3Volt clock battery.