

This is a humanoid model I made with Blender 3D. It can walk, turn, and kick the ball and cube.

## Controls

- ↑ Make the character walk the direction it is facing
- ← Make the character turn left by 45°
- → Make the character turn right by 45°
- ↓ Make the character move as though it were picking up an object
- k Make the character kick

Numpad 2, 4, 6, 8, + and – move the camera Control+Numpad 2, 4, 6, and 8 rotate the camera

## **Original Goals**

- ✓ Create a humanoid model in Blender 3D
- ✓ Load the model in Three.js
- √ Make the model walk by pushing arrow keys
- ✓ Put a cube and sphere in the scene
- ✓ Allow the humanoid model to kick the cube and sphere
- Allow the model to pick up the sphere and cube and put them down somewhere else

## Limitations:

- The animation does not look realistic.
- The walk cycle stops in the middle of a cycle and suddenly reverts to a plain standing position.
- I had planned to make it able to pick up the ball and cube and set them down, but was not able to get to that. It can still move as though it were picking something up, but does not actually pick them up.
- The cube and ball do not always move when I put the humanoid in position to kick it.
- The ball does not spin when it is kicked.
- There is no collision detection. I would have liked to be able to bounce the ball off the cube but did not have time to implement that.

## Challenges

The main challenge was time constraints. A lot of work piled up in my classes at the end of the semester. I had two term papers and a programming assignment in another class to complete. One of my professors was considerate enough to assign a project only one week before finals. As an added convenience, he initially posted the wrong files for the project which caused me to spend time trying to resolve my confusion.