Snake Assignment

Description
In this assignment, I created a random snake generator where each "snake" is made up of a random number of links ranging from 5-12 (inclusive), and where each link is a rectangular prism with a random length, width, and height. Links are right behind each other to form a snake-like appearance, and there is a joint between each link that rotates on the x-y plane, resembling the slithering of a snake. To run the program, which includes 5 simulations of such snakes, **run search.py**

Sensors + Movement
There is also a random number of sensors (each link has equal probability to be a sensor), where links with sensors are colored green, and links without are blue. Each joint has a motor and there is a synaptic connection between every sensor and every motor (which was discussed to be the best strategy in office hours). I changed the motor joint range constant to .45 to induce more movement as well.

Citation
In this assignment, my codebase is built off of the ludobots wikepedia
https://www.reddit.com/r/ludobots/wiki/installation/ and pybullet.

Diagram
Below are some examples of possible snakes which are also shown in my video submission