Adaptive Hungry Hippos Game

Assembly Instructions

1. Insert the hippo assemblies into the game board (refer to the original game instructions for guidance).
2. Lay out the power supply and game controller so they're within reach of both a wall outlet and the game board.
3. Connect the 4 hippo servo cables to the 4 servo cables that are attached to the case. Each cable attached to the case is labeled with a color. While you can technically connect them in any order, matching the colors ensures that the LED indicators in the case correspond to the correct hippo during gameplay.

   Note**:** Two of the servos extension cables have extra length. To keep things tidy and avoid strain, rotate the game board so the hippos with longer cables are farther from the controller, and the hippos with shorter cables are closer.
4. Connect the four adaptive switches to the corresponding jacks on the end of the controller case. Each jack is labeled with the color of the hippo it controls. You can plug any switch into any jack.
5. Plug the power supply's DC jack into the matching input on the game controller case.
6. After checking all cable connections, plug the power supply into a wall outlet.
7. The microcontroller should boot up within 10–15 seconds. A blue or green LED (depending on the starting mode) should be visible through the case lid.
8. The game is ready to play — just press the adaptive switches to control the hippos. (For full gameplay instructions, refer to the original game instructions)
9. Remember to unplug the game when not in use to avoid unnecessary strain on the servos

Notes:

- Check for servo heat: Occasionally touch each servo during or after gameplay. They should stay relatively cool in this implementation. If you notice one getting hot, unplug the game to give it a break ("let the hippos rest") and check the servo's mechanical connection or adjust the programmed open/close angles in the Arduino code (hippos/hippos.ino). Servos shouldn't have to fight to hold position in this design.
- If a hippo becomes "bound up," gently move it by hand to ensure the mechanical parts are operating freely.
- The servos may hum or "chatter" occasionally depending on their adjustment. However, they should not chatter loudly or continuously, as this can cause premature wear. If this occurs, you may need to adjust their physical connection to the hippos or fine-tune the programmed rotation angles in the Arduino code (hippos/hippos.ino).