Smarticle Hardware Notes

- Smarticles are always on unless battery is unplugged
  - Always leave charging when not using or unplug battery (but this is annoying)
- Reset button on front of smarticle is software E-stop. It will put the smarticles back into inactive mode where they do nothing, and the servos are not engaged.
  - Press this if one starts going crazy
  - Also use before charging them just to put them back into their lowers power mode
- Servo switch controls power to servos and is hardware E-stop
  - Left position: servos unpowered
  - Right position: servos powered
  - Switch to left position when not using them to conserve battery
- To Remove battery, use something blunt to push battery out the right side of the smarticle.
- Connecting/disconnecting battery:
  - I usually leave the battery connected as much as possible and then just let them charge through the day, but it's not a great idea to let them charge overnight as there is a (slight) risk of LiPo batteries catching fire
  - I use a pencil/screwdriver to get the wire out and then just pull on it to disconnect the battery
  - When you connect it again, just push in the wire into the cable so it doesn't stick out

Software Notes

- I have a commented example that should show you how to do most things but here is an overview.
- There are 3 modes for the smarticles:
  - 0- inactive,
  - 1- stream servo (still in development; won't really do anything)
  - 2- gait interpolate
- Mode 0 does nothing; servos are not engaged; no data is read or transmitted, but will receive commands
- Mode 2: smarticles will go to flat position with arms rigid
  - Can send gait interpolation points in this mode
- After sending gait interpolation points, smarticle will remain in current position
- Must use swarm.set_servos(1) to start the gaits