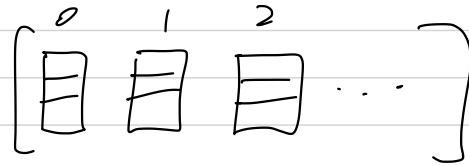


02/09/2023

How to analyze an exercise using the app and the wireless nodes?

- ↳ Run the python script on the flutter app (Carlton and Ben)
- ↳ connect multiple nodes to the app
- ↳ in the app, be able to store the latest sent values by each of the nodes
- ↳ requires a data structure where the index represents a node and each index stores the 3 orientation values sent by the node:



Debate between Carlton and Ben about how we should approach identifying the nodes in the app:

Ben: We should label each of the nodes and tell the users which ones to put on for a specific exercise.

Ex: for a curl, you need nodes 1 and 2 attached to your right arm above and below your elbow (around your forearm and lower end of shoulder)

in the app, we create a list: $[1 \ 2]$ identifying the nodes needed for the curl of the right arm.

Using that list, we generate one more list $\left[\begin{array}{c} 0 \\ \boxed{} \\ \boxed{} \end{array} \quad \begin{array}{c} 1 \\ \boxed{} \\ \boxed{} \end{array} \right]$ containing the orientation values sent by each of the nodes.

Then, we send this final list to the script for the analysis of the exercises.

Carlton: We should have all the nodes as generic and the app assigns a label to each of the nodes dynamically. The user knows which node to use because the app will make the corresponding node vibrate.

Ex: for a right arm curl, the app would say: attach vibrating node to your right forearm. Now, attach vibrating node (the next one) to the lower end of your right shoulder.

⇒ we decided to use Ben's idea because it is simpler to implement and we expect to give us less problems in the future.