

## Phantom Limb (This station requires 2 people)

### Part 1: Experiment

- Put your left arm (palm-up) inside a paper bag on the table, so you can't see it. Make sure the bag has a hole cut out of the bottom.
- Put the rubber arm (palm-up) next to the bag so your arm and the rubber arm are parallel. Try to make your hand as much like the rubber hand as possible.
- Focus on the rubber hand.
- Now get your friend to brush both your fingers, and the fingers on the fake hand.
- They must stroke both identically, with the same timing and at the same part of your hand.
- Continue this for approximately 1 minute

### Questions

- Which arm felt like your arm?
- What information does your brain use to give you your sense of self?
- What would happen if your partner hit the rubber hand without warning after doing this experiment for several minutes?
- Why did we ask you to test this on your fingers?

### Part 2: Design an Experiment

With your groupmates, brainstorm a *testable* scientific question based on the information you have so far. Write out how you would test this question. Don't forget to consider scientific controls!

**Want more information?** Here are some keyword suggestions you can use to find more information on this subject, use one of them when describing your test: Primary sensory cortex, body image, brain topographic map, proprioception