## Step 1: Get Badges in the room

1. Click SETUP in Netlogo
2. Tell all the students to turn on the badges and wait until every badge displays the message “opened”
3. Once every badge is in and displays “opened”, click GO in Netlogo (the one that is forever)
4. Now, all the badges should populate the display in Netlogo

## Step 2: Generate interaction data

1. Now, the students can walk around the room and interact with the badges (To interact, the students must face the badges toward each other and simultaneously press both buttons of the top of the badge – only one student has to press the buttons)
2. As the interactions occur, the links should appear on the screen between the badges that interacted
3. Once the interactions are finished, click SAVE-INTERACTION-SET to avoid losing the data
4. Then, click FINISH to take the interaction data and apply it to the disease spreading simulation

NOTE: If Netlogo is closed and you want to retrieve an old saved data set, just open Netlogo and click LOAD-INTERACTION-DATA and then proceed to step 3

## Step 3: Playing back the simulation

1. Once you click FINISH, you can change the variables on the right side
2. Once the variables are changed, click UPDATE to make the changes affect the data set
3. Then, adjust the playback speed by changing TIME-MULITPLIER and click PLAY to watch the interactions take place
4. You should notice the plot updating over time as more badges become infected in the simulation.
5. Using the same data set, you can change the variables on the right side and click UPDATE to see how the changes affect the interactions and ultimately the number of people infected.
6. While the simulation is running you can click the three buttons above the output to see some information about the simulation. Each button will show a different kind of information.

NOTES:

* To prepare the badges, load the files called save.rom and wifi.txt onto an empty microSD card. Then insert the SD card into the badge, power on the badge, and wait until the badge is “Searching Wifi” before you remove the SD card. From then on, all you have to do is power on the badge for it to load the correct program and join a Netlogo simulation.
* In Netlogo, there are switches to control various aspects of the simulation
  + ONLINE – determines whether actual badges are being used or if Netlogo should create a room with NUM-PARTICIPANTS random badges and fake a set of interaction data
  + SHOW-LABEL – changes whether or not the badge’s module-id is shown as a label in the output
  + REGARD-TIME – changes whether or not the interactions in the view form with respect to time or if they form one after the other until they are all displayed
* In order to run a “fake” simulation (AKA without real badges), turn the ONLINE switch to OFF, click setup and click the GO button that isn’t forever. Then click PLAY under the view. Changing NUM-PARTICIPANTS changes how many badges are in this “fake” simulation.