

Setting up for the first time

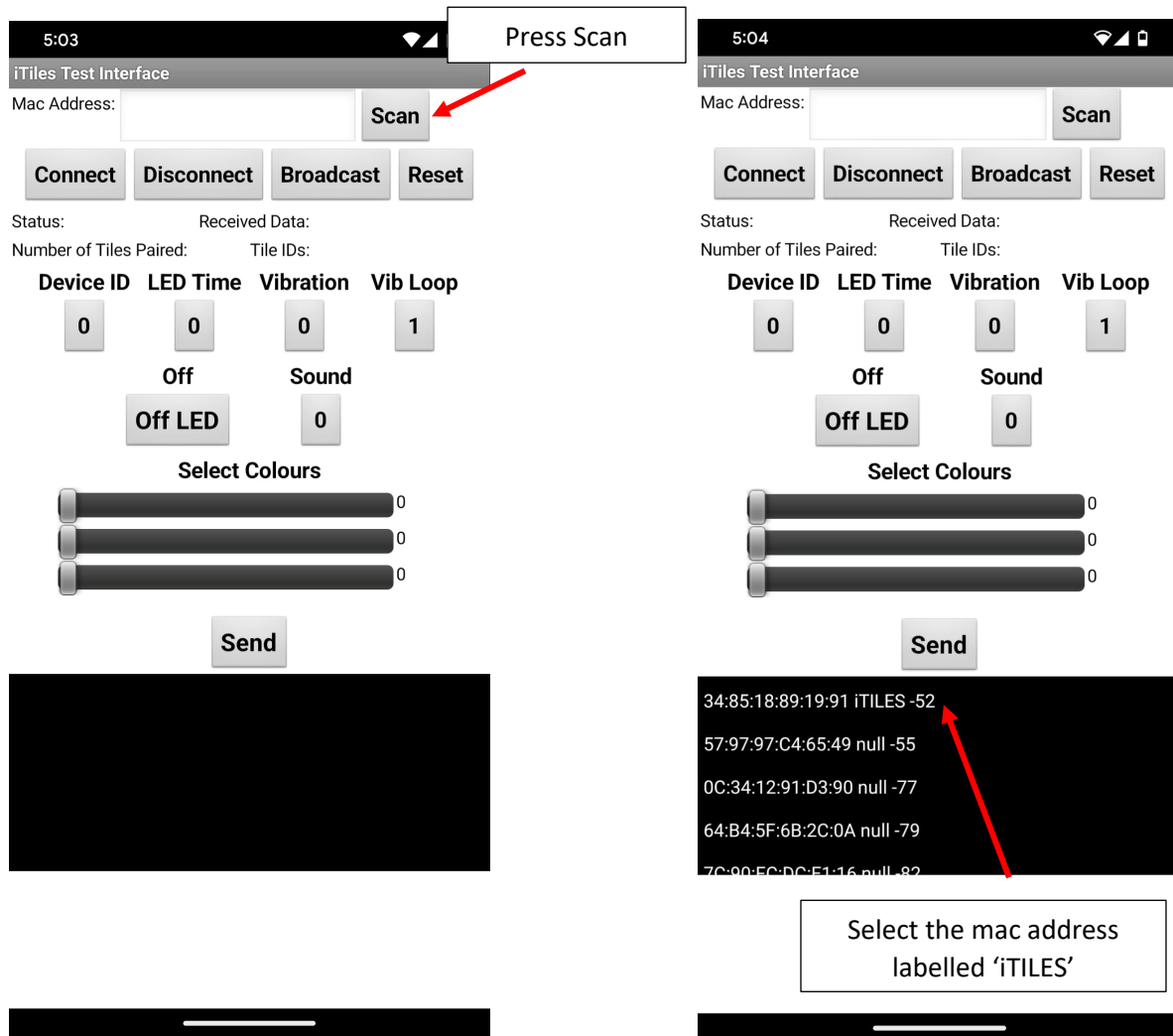
All tiles are configured as standard tiles out of the box. A standard tile will glow and fade in Red. In order to start using iTiles with the app, reconfigured any tile as a master tile by following these steps:

1. Locate the pin hole on the back of the tile. Use a pin to press (and hold) on the button located inside the pin hole.
2. After 5 seconds the tile will light up in yellow. Releasing the button when the light is yellow will reset the tile, clearing all its pairing information. This reset function is applicable for both standard and master tiles.
3. Continue to hold the button for another 5 seconds and the light will toggle between purple and green. Releasing the button when the light is purple will configure the tile as a master, while releasing the button when the light is green will configure the tile as a standard tile.

A master tile will glow and fade in Purple when switched on.

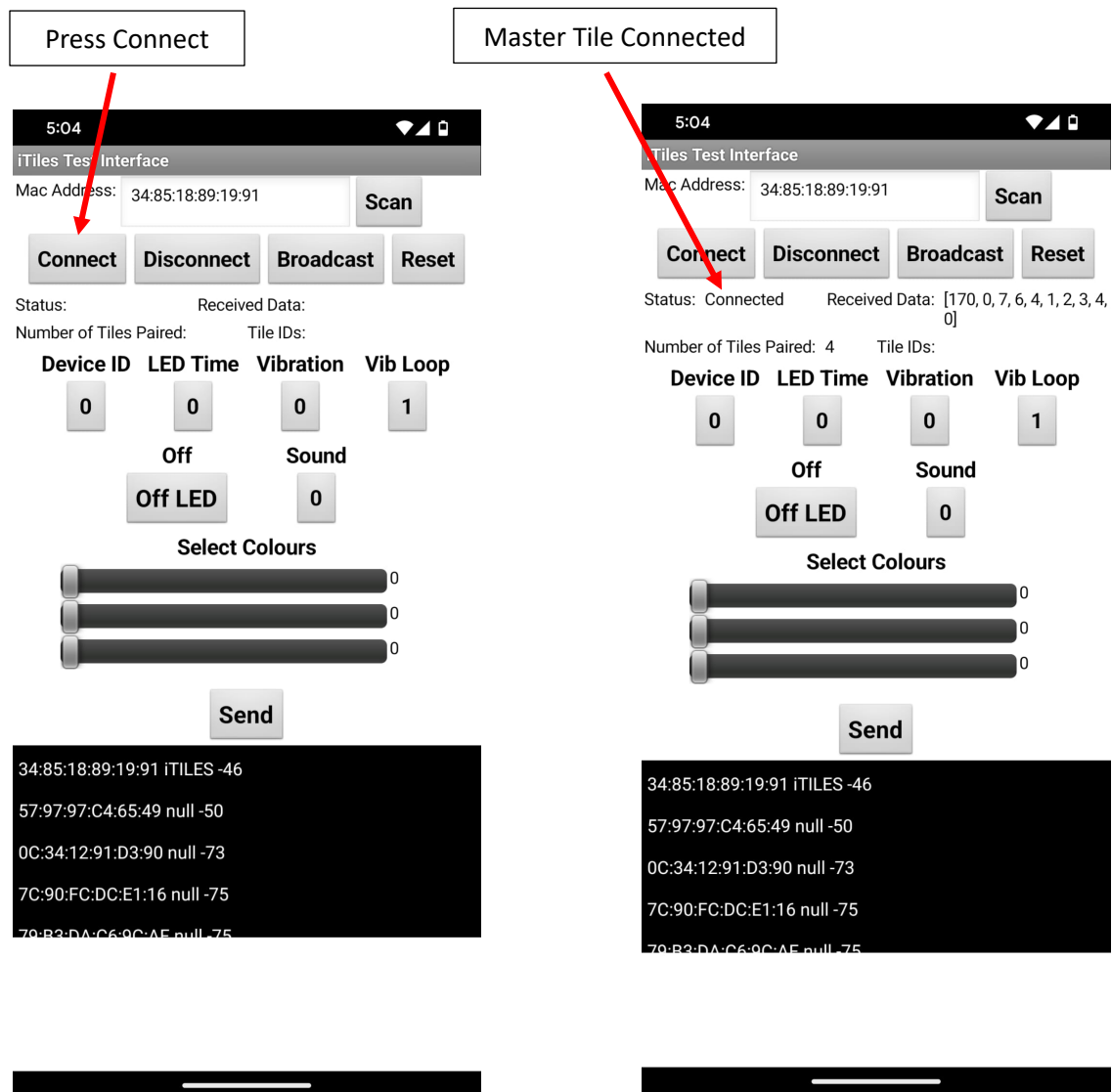
Pairing Standard tiles to Master Tile and Using the Test Interface

1. Switch on all the iTiles to be paired (including the Master tile). A Master tile will glow and fade in purple. Unpaired standard tiles will glow and fade in red. Connected standard tiles will light up in green for 1 second and turn off.
2. Launch the iTiles Test Interface App. Press 'Scan' to show a list of connectable devices. Select the device labelled 'iTiles', and the Mac Address field will be filled up with selected tile address.

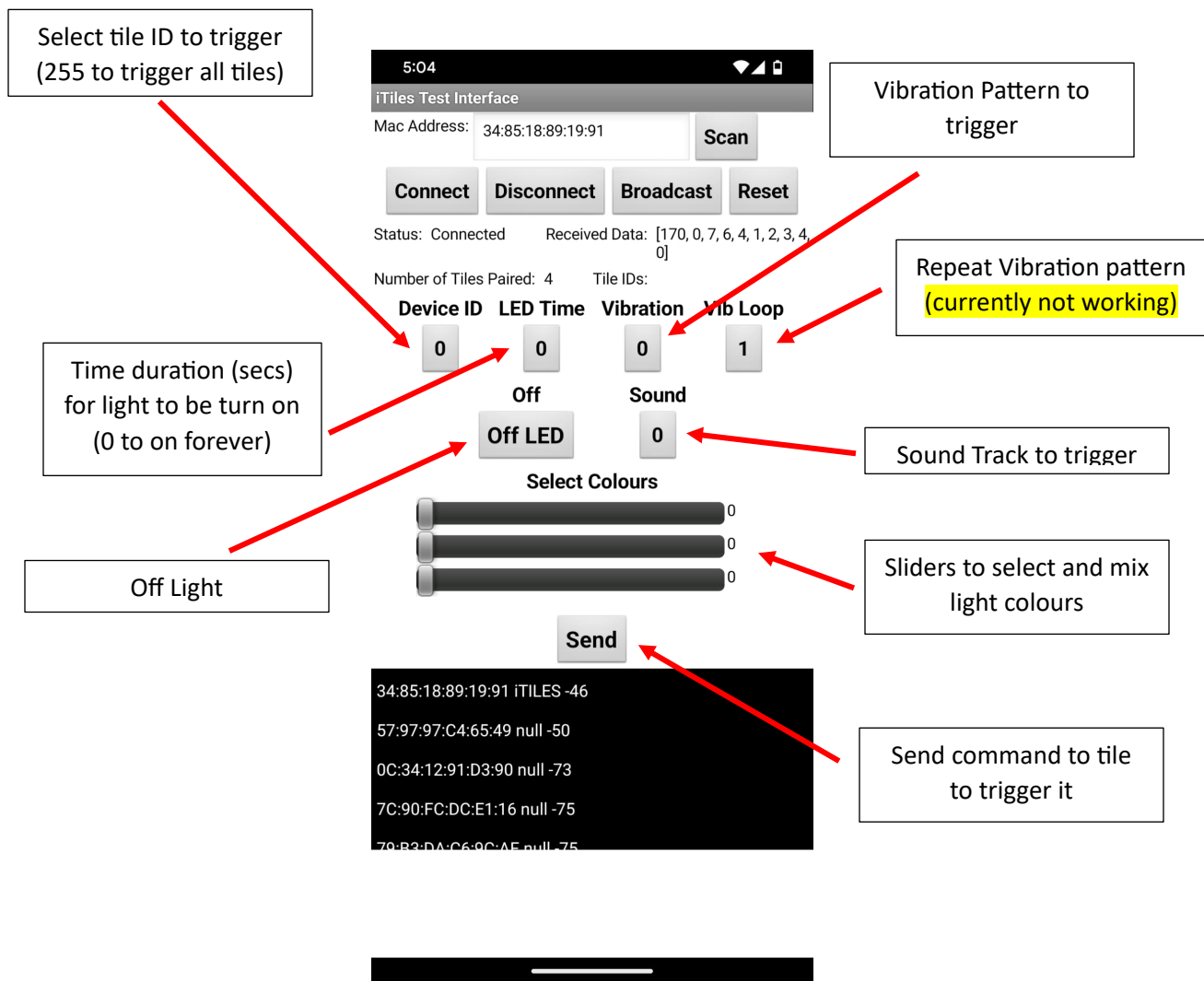


3. Press 'Connect' to connect to the master tile. Once connected, the status on the app should show 'Connected' and the Master tile will stop glowing in purple.
- The Master tile will timeout if not connected within 90 seconds and go into sleep mode. To activate the Master tile, switch it off and on.

***All the apps uses a MTU size of 46 which has an unreliable connection with MIT app inventor.**
After a successful connection to the Master Tile, ensure that the Received Data field shows some reply message from the Master Tile. If the Status shows connected but there is no received data, disconnect and connect again.



- Press 'Broadcast' to broadcast the Master tile mac address to all tiles within the vicinity. Unpaired standard tiles and stop glowing in red and start to glow in 'yellow'.
- To pair the glowing yellow standard tile to the master tile, touch the tile and the light will turn off to indicate that it has been successfully paired. Tile ID will be assigned in ascending order from Device ID 1 onwards. Up to 250 standard tiles can be connected to 1 Master tile.
- Once pairing has completed, commands can be sent to individual (or all) tiles to trigger light, vibration and/or sound.

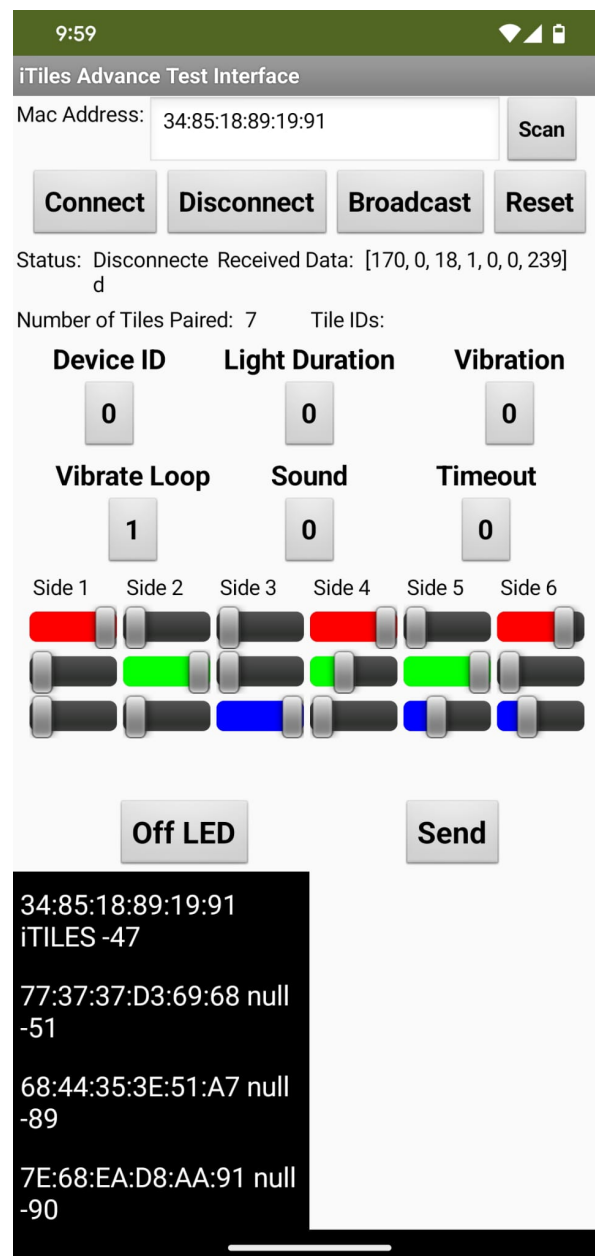


- To reset pairing on a specific standard tile, choose the tile ID and press reset. To reset all tiles, select tile ID 255 then press rest.

Using the Advance Test Interface App

The Advance Test Interface App is used to test the Super Trigger command which uses one single command to for advance trigger options which includes setting a trigger timeout.

1. Launch the Advance Test Interface App and connect to the Master Tile.
2. The interface is similar to the Basic Test Interface but with the additional function to setup the light colour in each side of the tile and also to set a timeout. If timeout is assigned a value, and if the tile has not been touch within that period of time, a timeout command will be received by the app.



Using the Orchestration App

The following sound files have been pre-loaded into all iTiles. The file names are organized as follows:

T001- T009 : Generic Game Sounds

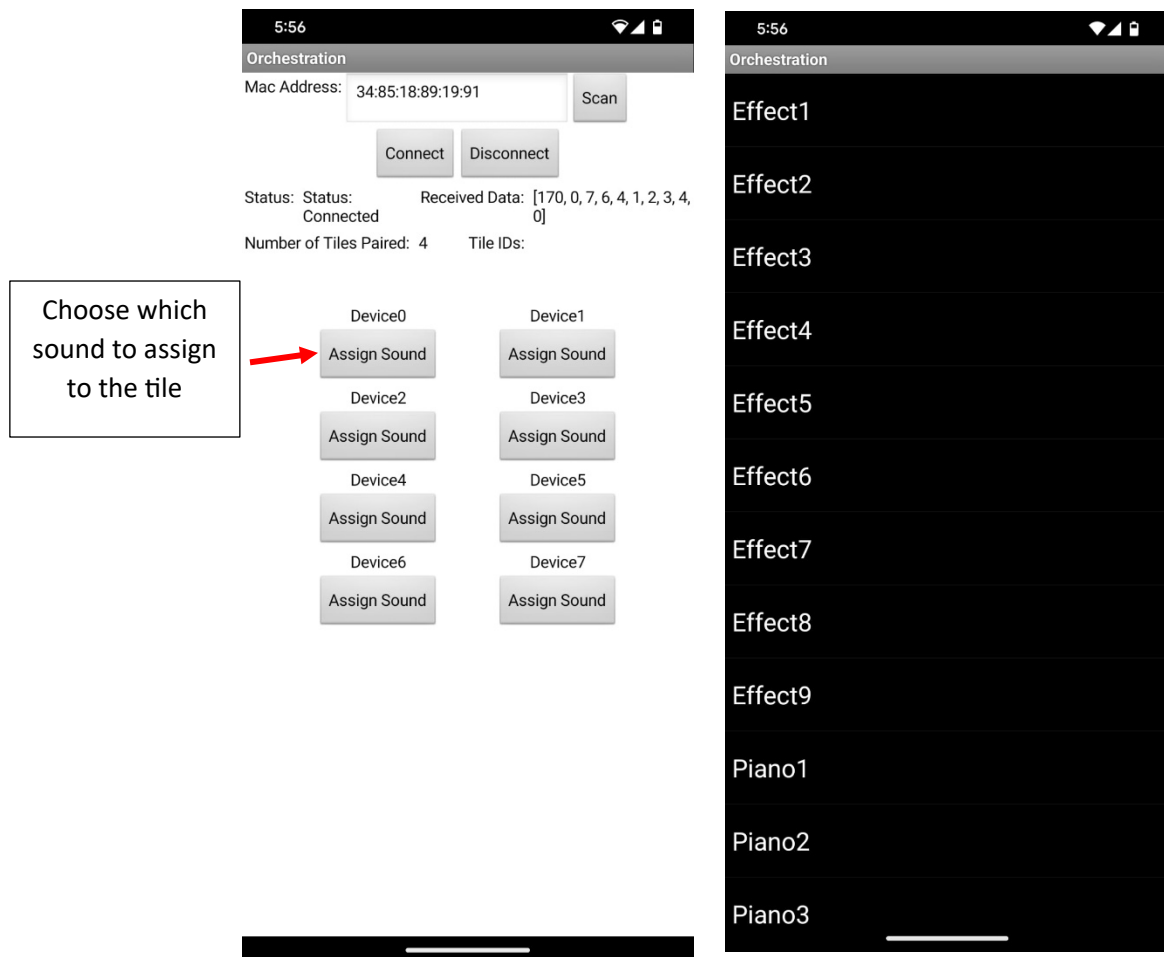
T011 – T034: Piano Keys

T041 – T060: Strings

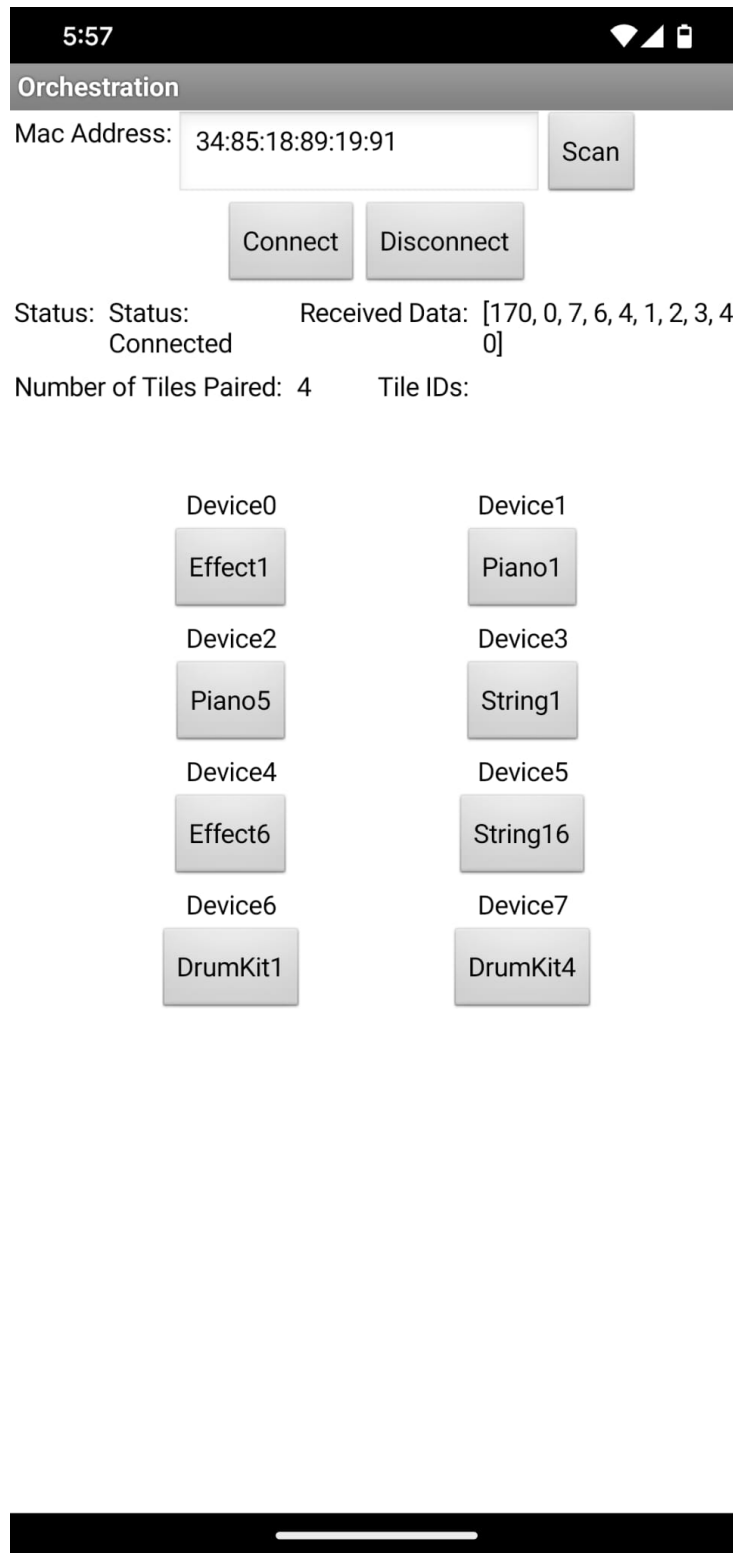
T061 – T069: Drums

**Assume all standard tiles have already been paired to the master tile.*

1. Launch the Orchestration app and follow the same procedures to connect to the Master Tile.
2. For each device, press on the Assign Sound button. Device 0 corresponds to the Master Tile



- After tiles have been assigned a sound, touch the tile to play the sound assigned to it.



Using the Memory Game App

1. Launch the Memory app and follow the same procedures to connect to the Master Tile.
2. Press Start to start the game. The game starts with a sequence of 3 tiles lighted blue in a random order. After the sequence has completed, all tiles will flash blue and the player touches the tiles in the same lighted sequence. A correct touch will trigger the tile to flash green and play a success sound. When all tiles are touched in the correct sequence, a short sound clip will play to indicate a new round where 1 more memory sequence is added. An incorrect touch will trigger the tile to flash in red together with a sound and the tiles will display the sequence again for the user to make another attempt.
3. To stop the game, press the stop button.

