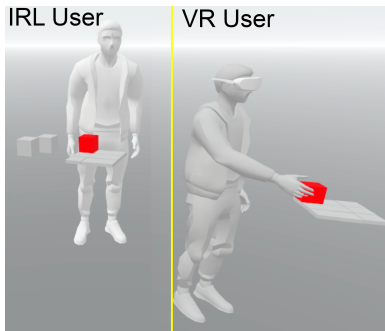


# Block Party by Platypods

## electrical and mechanical initial design



*Enables people in both VR and IRL to interact simultaneously with real world objects and digital twin VR objects.*

The functional idea is: to have a grid of 3x3, and use resistors to sense where blocks populate the board, with stacked blocks reducing measured resistance. The leds inside the blocks are addressable by the ESP32, so they may light up in IRL when manipulated in VR.

The ESP32 sends and receives data via the MIT developed Singularity plugin for Unity. In Unity the blocks and the board are rendered depending on the sensed inputs sent by the Arduino. Also when a user in VR touches a block in vr, information will be sent via bluetooth to the ESP32 to illuminate the respective block in IRL.

