Basic Weatherproofing

Raspberry Pi and microphone array waterproofing.

We present here two different methods of weatherproofing for MAARU, depending on whether or not you have access to a 3D Printer. For both, you'll need acoustic weatherproof vents (details in kit list).

Tip: Power down and unplug the device from the power source while you're setting up the waterproofing

1. Drill a 1x3cm hole in the bottom of the box and 6+2 holes in the lid. The hole at the bottom of the main box will allow for power/data wires to exit the Tupperware. The 6 circular holes on top will line up with the MEMS microphones on the array while the 2 other holes will line up with two other protrusions on the surface of the array. Once all the holes have been made, sand down the edges and surrounding area to reduce risk of damage and increase surface area for adhesives to attach. Attach the IPRO vents to the mic hole and lay electric tape over the other two holes and cover with sealant.

2. Put the raspberry Pi inside with the cables to the power source and the Huawei dongle coming out the bottom. Seal up the bottom with electric tape and clear sealant.

3. Put silica in the case and snap shut. Seal the edges with 2 layers of sniper tape.