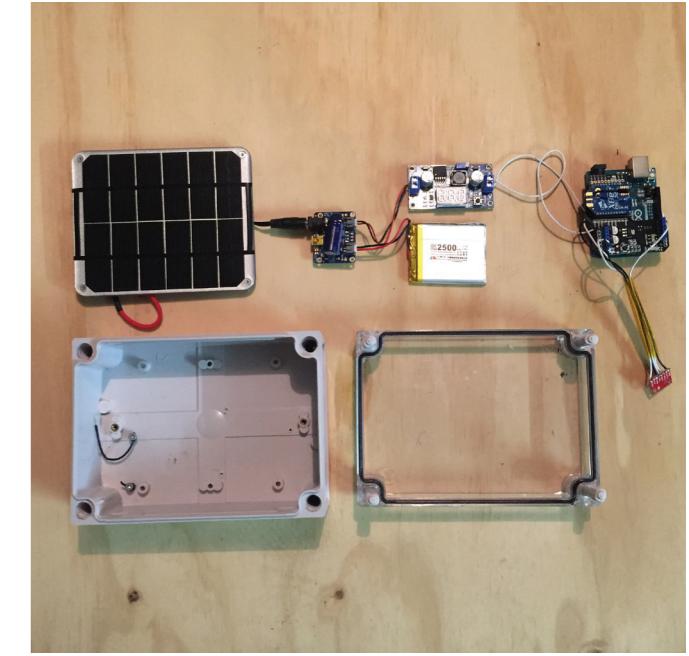
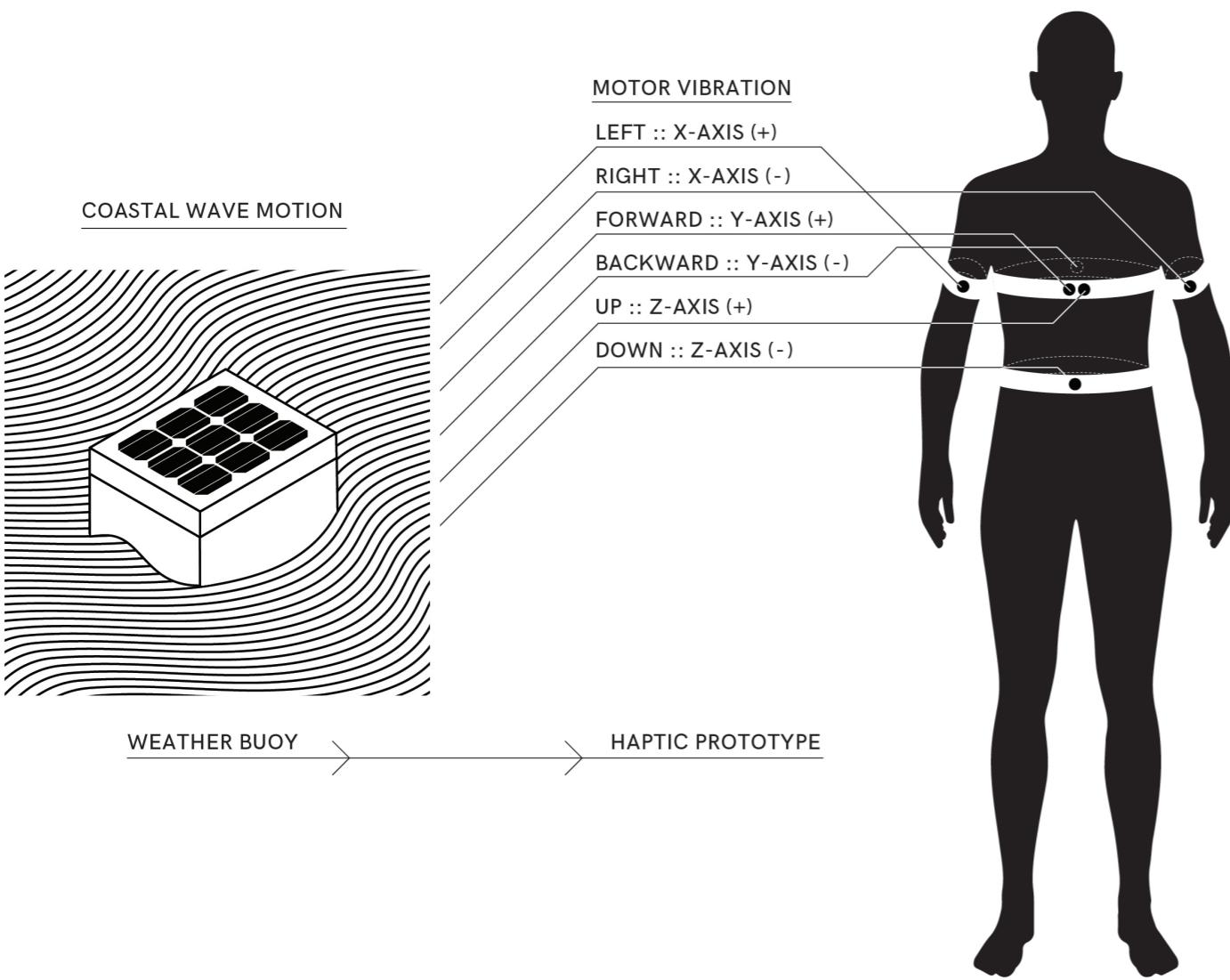


WAVE TRANSLATOR

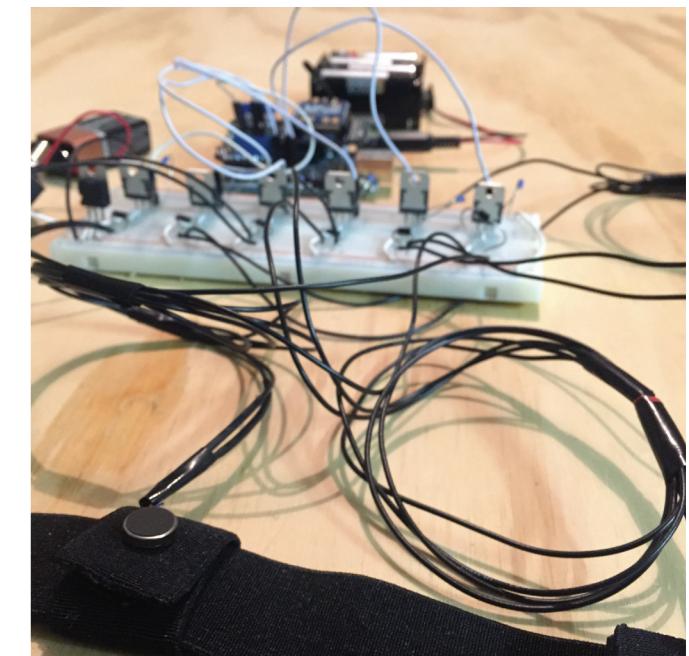
Devon Ward

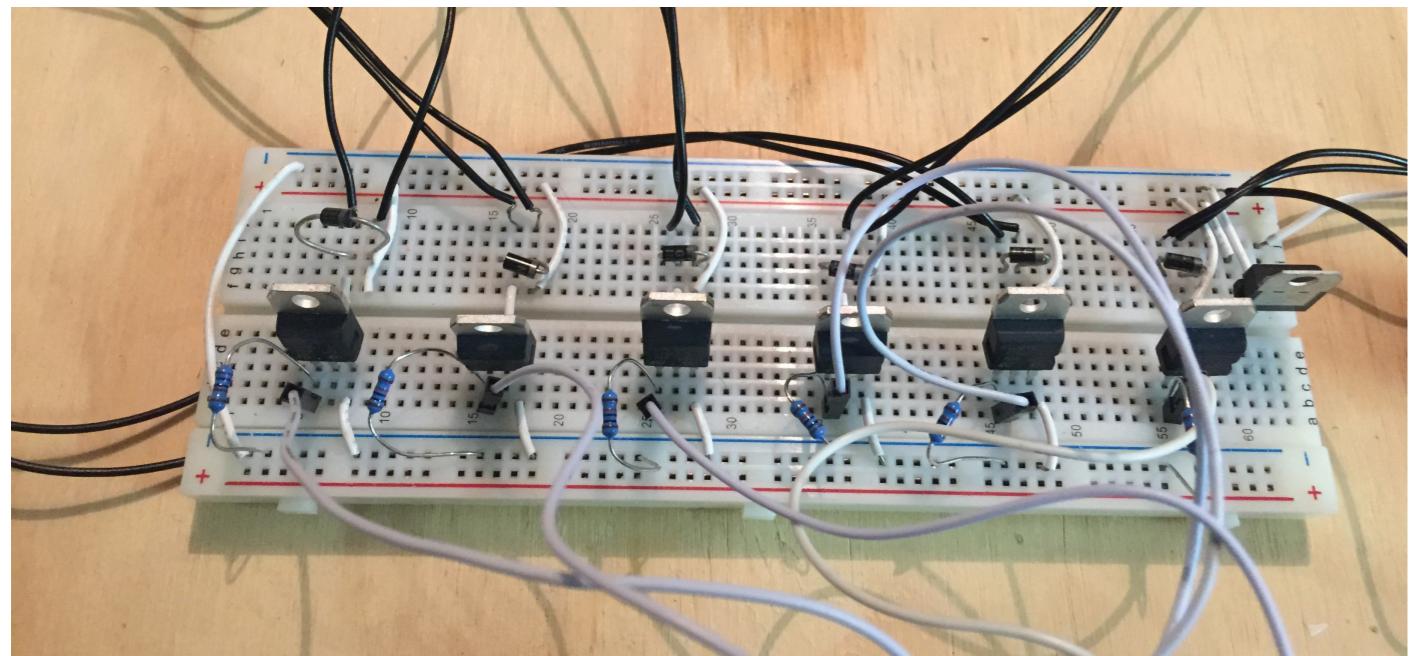


The project started as an exploration into the increasing allure of highly mediated experiences of environmental phenomena. It began by asking: what are the implications of translating the immediate, felt experiences of naturally occurring events—in this case waves crashing on the beach—into highly mediated experiences of data. Would an apparatus that translates wave-motion into datapoints, which drive haptic motors, create a new form of haptic memory that enhanced the experience of a place, or would it act as a hyper-mediated Siren song that distracts and dislocates one from the experience of the real phenomena?

The project consisted of two parts: a homemade buoy and a prototype of a haptic wearable. The buoy consisted of a weather-box, a solar panel, lipo battery, voltage booster, Xbee and an Arduino connected to an accelerometer. The haptic prototype consisted of an Arduino, an Xbee, a 9V battery, six n-channel MOSFETs, a 5V voltage regulator, six vibro-motors, wire, resistors, nylon fabric bands and some Velcro.

The buoy was able to detect the surface motion of the waves on the island's coast and wirelessly broadcast that data to the haptic prototype. The haptic prototype consisted of four





nylon bands with 6 motors: one band for the left arm, one for the right arm, one band for the chest and one for the stomach. The movements of the buoy corresponded to motor vibrations in the haptic prototype. If the buoy accelerated to the left, the wearer would feel a vibration in their left arm. The haptic prototype resulted in a calming experience, a successful result for a week on the island. However, question about the significance and impact of devices such as this remain.

