Final Testing Plan

Team 34: PUCKFish

**Required Materials**

* PUCKFish prototype unit
* LoRa receiver
* Qi Wireless Charging pad
* Laptop
* Cables

**Setup**

* Connect LoRa receiver to laptop
* Place PUCKFish unit on wireless charging pad to ensure it has sufficient power

**Testing Procedure**

* Remove PUCKFish prototype from charging pad
* Place PUCKFish unit within body of water
* Confirm integrity of PUCKFish unit under water
* Move the device, confirm that the accelerometer is accurately reporting data
* Change the orientation of the sensor, confirm that the orientation sensor is accurately reporting data
* Cover and uncover the light sensor, confirm that the accelerometer is accurately reporting data
* Remove PUCKFish unit from water
* Confirm the LoRa receiver is receiving data
* Monitor transmission from PUCKFish over LoRa
* Confirm the sensors responded to stimulation as expected (temperature and dissolved oxygen will change merely by being in/out of water)
* Assess waterproofing effectiveness by seeing if unit still functions, and has not absorbed water

**Measurable Criteria**

* Prototype precisely reports acceleration data
* Prototype precisely reports light data
* Prototype precisely reports temperature data
* Prototype precisely reports orientation data
* Prototype precisely reports dissolved oxygen data
* LoRa receiver accurately receives data
* Unit remains waterproofed and functional in water