



About Deepoid

We are a company based in Sweden, passionate about underwater communication and making incredible diving experiences even better. We want to improve the way divers communicate, as well as actively support the diving community.

Our technology is based on ultrasonic sound and was first used in the Aqwary product "Smart Console" that enabled divers to share information across their own local subaquatic network. We are now teaming up with companies around the world to help them deliver advanced underwater communication to their users.

Thesis work -Voice communication

Problem

People like to talk when they communicate. Especially when you are doing things that requires your focus, such as scuba diving. There are version of underwater voice communication in the world, but these systems are focusing on professional users. This means that the price is out of reach for the majority of potential customers.

We want to investigate if our technology can be used to allow users to use voice communication over a short distance (10-15 m) without adding a lot of cost to the divers equipment.



The low cost ultrasonic technology we are using have a bandwidth that is limited to 1.2 KHz (-6db).

Task

The task is to investigate the possibilities and suggest how to build a voice communication system that uses our limited bandwidth and power while still allowing voice communication over a distance of 10-15m.

Outcome

A report of the problems and suggested solutions to them and if possible one test-implementation that can be verified (on existing hardware) under water.

Does this sound interesting?

We always formulate the exact master thesis together with the student and supervisor so please get in touch on anders@deepoid.com or call/text me at 0703104448