

Unit 4: Robotic Hands

David Gruber: We're in the northern part of the Red Sea, and the reason we're here is we're trying to test out our squishy robot fingers for the... for the first time in a reef.

So we tested these squishy fingers in a swimming pool, and now we wanted to put them to the true test. We wanted to try them underwater in one of the richest coral environments that we have.

Robert Wood: Squishy fingers are making a robot hand but making it out of rubber. The idea came up when I met David, and he showed me these fantastic videos of him, you know, going underwater with his robots. But the hands that he was using were meant for oil exploration, and so they were basically just destroying everything that they touched.

So, I said, you know what: We can make squishy fingers.

David Gruber: It's a nice grip, you know. I think this is gonna work great.

This area here is one of the richest coral environments that we have.

These squishy fingers do work well on land, but do they work well under the water? We're gonna find out soon.

If we can grab that, that'll be interesting because it's... it looks very fragile.

Team Member: Oh, do it. Grab it. You're in there. Squishy robot fingers!

David Gruber: From this, we could do the entire genome. We could sequence out proteins. This is all we need.

It's super exciting! I mean, we're basically in the first steps, but you could just see just the amount of potential that they have.