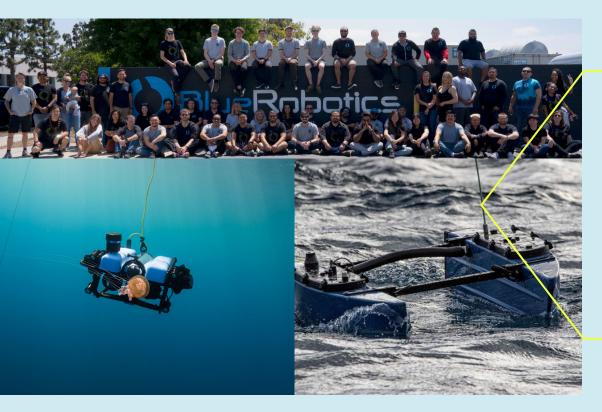


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Ocean Technology on the Kelp Farm

What is Blue Robotics?



- Founded to create accessible, affordable ocean technology.
- The "LEGOs" of ocean tech.
- Products range from ROVs,
 Autonomous Surface Vessels, to
 marine sensors.
- Committed to supporting sustainable practices in the blue economy.

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The Kelp Story + Blue Robotics



- The Good Vibes.
- Kelp's foundational role in the ocean environment.
- Kelp farming for food, sustainability, climate change.

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• This is the stuff we want to be a part of at Blue Robotics. How do we get involved?



Ocean Rainforest



- Ocean Rainforest is a leader in offshore kelp farming.
- Faroe Islands-based company.
- 86-acre farm in Santa Barbara, California.
- Macrocystis pyrifera AKA giant kelp.
- Shared goals: advancing technology use and promoting sustainable kelp aquaculture.





Field Days at the Farm

- Get wet and learn what kelp farming is!
- <u>Activities</u>: deploying ROVs, testing sensors, collecting data.
- <u>Key insights</u>: technology integration, farm operations, environmental conditions.
- What does this tell us?





Smart Farms Need Ocean Data!

• Sensors:

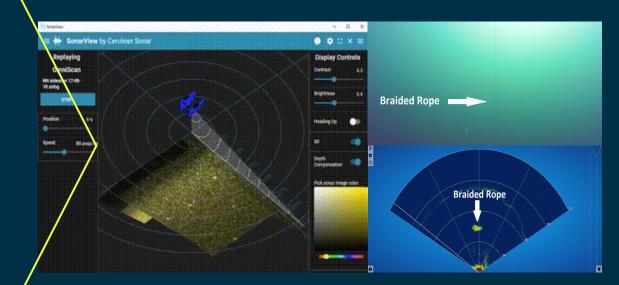
- o Cameras
- CTDs (Conductivity, Temperature, Depth)
- Acoustic monitoring

• Sonars:

- Mapping seafloor
- Monitoring biomass
- Detecting objects

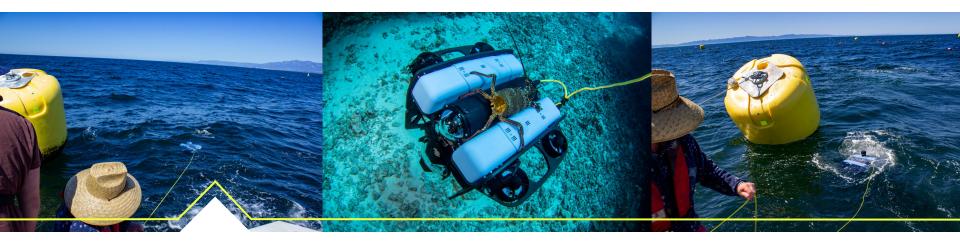
• Benefits:

- Farm modeling
- Enhanced monitoring
- Detailed environmental insights









ROVs

- "Walk the fields" of the farm.
- Underwater tractor. Customize it.

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• Right to repair!



Autonomous Surface Vessels



- Surface tractor.
 - surface kelp monitoring
 - ocean data collection
 - seafloor surveying
 - autonomous patrol
- Advantages:
 - autonomous operation
 - scalable
 - multi-functional

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Smart Buoys

- Environmental monitoring
- System alerts
- Improved farm management through computer modeling and ocean monitoring





Software



- Digital Farmhand: Control all your smart farm applications with a single OS.
- Real-Time Monitoring: data, and video streaming.
- Robust developer tools allow customization to meet specific kelp farming needs.
- User-Friendly: Open-source and community-oriented





The Future

Now

Plans for continuing the partnership with Ocean Rainforest and others . Come say hi!

December

Launch partnership with Darling Marine

October

- Attend and present at the the California Seaweed Festival
- Kelp Farm Cutaway Poster

Goals

- Continue to develop new farm technologies & techniques
- Expand partnerships and relationships
- Tell the story well
- Be thought leaders in the sustainable aquaculture space



BlueRobotics