

# Arin's challenge details for challenge: [Solar Prize](#)

## [Round 6](#)

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### Explanation

Water Jet Cutting services of 316 steel plates 5mm thick.

Additional laser cutting services of 3mm max aluminum plates and sheets.

3D printing of PVC filament

Cold press 1mm aluminum forming of 6082 alloy aluminum into 1.2 by 2.4 meter sheets.

Machine learning expertise

Google admin services

AutoDesk Talent

Finite element analysis in Fusion 360 or other

Satellite imaging services or subscriptions

Foam composite testing facility

Spray Foam equipment suppliers

Spray foam and marine foam manufacturing services.

Aluminum extrusion manufacturing

PVC extrusion and fitting manufacturing

Marine Grade Aluminum tap rivets manufacturing

American Flag and flagpole manufacturing for the vessels flag

Safety LED light manufacturing

### Key Needs

- Procurement of Raw Materials (2 / 5): Aluminum and marine foam
- Manufacturing (2 / 5): LED safety lights, flagpoles and flags
- Product Design (2 / 5): AutoDesk Inventor designers, OnShape experts for BOM, fusion 360 finite element analysis
- Software Development (5 / 5): Data Scientists and machine learning experts to help develop route planning that is as good as a human making the GPS waypoints and sinking schedule for the vessel.
- Robotics (2 / 5): Robotics experts to review, critique and improve upon our system design.
- Science, Research and Development (5 / 5): We'd like academic partners to help study the impact on primary production when you sink the seaweed.
- Fabrication & Prototyping (1 / 5): 3D printing, CNC cutting, laser cutting, water jet CNC cutting, sheet metal folding of 2.5 meter wide with 1mm thick, sheet metal shearing that is 2.5 meters wide and 1 mm thick.
- Funding & Investments (4 / 5): 300K in Angel investment needed to make a fleet of 20 vessels to prove we can produce 4 vessels at a time and to prove that when 20 vessels are deployed we have higher rates than just 1 due to swarm intelligence.
- Technical Analysis (3 / 5): Finite element analysis in fusion 360 or similar tools

- Legal, Insurance, and Public Policy (3 / 5): Legal and regulatory interpretation of international law and various international water conventions and treaties.
- Testing and Validation (3 / 5): Science mission Vessels in Miami or New Orleans or sailors or yacht owners who are adventurous.
- Business Development & Commercialization (2 / 5): Connections at places like Frontier who purchase Carbon Removal. Microsoft. Google. Etc...
- Hardware Development (3 / 5): PCB development so we can make our own system on a chip that integrates our PWM control outputs, GPS, satellite modem and various hall sensor inputs while allowing us to run linux and process USB images.
- Marketing & Promotion (2 / 5): Media services to fly drones when doing missions, underwater photography and videography as well as video editors to process huge amounts of footage into engaging reality / doc style social media mini stories.

## Matches

1. [BlochSoft Technologies Inc](#): 87.56%
2. [Zpryme](#): 86.58%
3. [IoT Conduit](#): 86.57%
4. [New Mexico Clean Energy Resilience and Growth](#): 85.62%
5. [Positive Deviancy](#): 85.61%
6. [Coe Student Innovation Center - University of Wyoming](#): 85.60%
7. [University of North Dakota Energy and Environmental Research Center \(EERC\)](#): 84.68%
8. [BLUE Excelerator \(Blue Institute\)](#): 84.65%
9. [HomeMe Group, Inc.](#): 84.65%
10. [Circuit Launch](#): 84.65%