Job Title: Ocean Engineer – Navigation & Autonomy (Contract-to-Hire)

Location: Pensacola, FL

Employment Type: Full-Time, 3-4 Month Contract (1099) with potential for W-2 conversion

Period: January 2026 – April 2026

Reports To: CEO

This is a 3–4-month, full-time contract (1099) focused on refining the navigation solution for a critical customer demonstration in March/April 2026. You will join the team immediately to calibrate sensors, tune state estimators, and validate navigation accuracy in real-world conditions.

Upon successful execution of the demonstration, this role is intended to convert to a permanent W-2 position leading our Guidance, Navigation, and Control (GNC) efforts.

Key Responsibilities

1. Sensor Integration & Calibration

- Lead the identification, integration, and testing efforts to improve upon the existing Inertial Navigation System (INS).
- Troubleshoot sensor dropouts, timing synchronization issues, and driver latency in a ROS environment.

2. State Estimation & Tuning

- Help improve existing IMU stack and/or explore alternative low-cost solutions (e.g., DVL) to optimize AUV navigation.
- Improve performance of dead-reckoning accuracy for low-cost AUV systems, compensating for sensor drift without relying on constant GPS.

3. Field Validation (Feb – March)

- Plan and execute field trials to measure navigation error accumulation (drift rate) over time and distance.
- Analyze and document AUV performance in challenging conditions (high currents, featureless bottoms, surface waves).
- Validate waypoint following and autonomous surfacing behaviors.

Required Qualifications

- **Citizenship:** Must be a United States Citizen.
- **Experience:** 3–5 years' experience in research, development, and field deployment of AUVs, ideally with low-cost systems.
- **Hardware Expertise:**
    - Proven experience integrating INS/AHRS units.
    - Experience with DVLs (e.g., Teledyne Wayfinder, Nortek, Water Linked) is desired.
    - Understanding of acoustic positioning (USBL/LBL) aiding is a plus.
- **Software Stack:**

    - Strong proficiency in Python and C++.
    - Deep experience with ROS 2

Logistics & Housing: The "Sprint" Setup

To support this development sprint, we want to remove all logistical friction so you can focus entirely on the mission.

- **Housing is 100% Covered:** We provide fully furnished accommodations for the duration of the contract at no cost to you. No leases, no utility bills—just show up with your gear.

Compensation

- **Hourly Rate:** $8,000 – $10,000 / month (Dependent on experience and fit).
- **Structure:** 1099 Independent Contract.
- **Conversion:** Potential for conversion to Full-Time W-2 (Salary + Benefits) upon successful contract completion.

How to Apply

Please submit your resume and cover letter to info@gparticle.com.

We are an equal opportunity employer and value diversity at our company. We do not discriminate on the basis of race, religion, color, national origin, gender, sexual orientation, age, marital status, veteran status, or disability status.

About Us

Guided Particle Systems Inc is an advanced technology research, development, and manufacturing company that specializes in system level packaging, scaling, integration and solving complex problems. We're a small, growing company at the forefront of autonomous marine systems, microfabrication technology, and more. From the arts to analytical chemistry, robotics and quantum science, we research, develop, and apply cross-disciplinary and cross-industry technologies, tools, and techniques in our solutions.