Senior Embedded Engineer

TI;dr
We’re looking for an embedded systems engineer who can build hardware and firmware prototypes of internet-connected devices. If you like to work independently on blue sky designs and you can design electronic devices, select components, lay out a PCB, then write firmware using an RTOS, this job is for you. In addition to technical skills, you must have the interpersonal skills to work directly with clients and self-manage your own projects.

About Us
Geocene is a small Internet of Things (IoT) engineering consulting firm based in the Bay Area. We help startups build new products, usually internet-connected sensors, but we also offer our engineering services for global development work with NGOs and some governments. By working alongside startups at Geocene, you get all the fun dynamism of Silicon Valley’s startup culture, but without most of the stress and drama.

What it is like to work here
There are fewer than ten people in this company, so we know each other well. We’ve designed a company specifically so we can spend as much time as possible on interesting engineering challenges while also enjoying our off time. We focus our hiring on exceptionally-talented individuals who can thrive in our fast, independent, and low-structure work culture. We’re hoping you will join us.

We have:

- **Few meetings.** We have three 30 minute standups a week and occasional ad-hoc meetings about new projects. Otherwise, the only meetings are the ones you schedule with your clients.
- **Flexible Timing.** Get your engineering done in a reasonable timeframe, keep your clients happy, and show up to meetings. Otherwise, you can do the engineering at midnight if you want.
- **Ability to say no.** Engineers at Geocene can say “no” to a project they have any objection to working on. If they have a significant moral objection to the project, they can even veto the project for the entire company.
- **Engineer driven.** Everyone here does active engineering work except for the one person who does all the other business stuff.
- **Slow growth.** We have no middle managers and don’t want middle managers, which means we grow by increasing the quality of our customers, projects, and raising our billing rate.
- **No KPIs.** An advantage of working for a small company is that you are a person, not a number. We know your successes and will have your back if things go poorly with a client.
- **Huge profit sharing.** All employees own stock and have bonus shares. This isn’t just paper, we pay significant bonuses and distributions to all vested employees every year.
- **Generous Office/Home-Office Budget.** Buy whatever you need or want with your annual budget, so long as it is work-related.
- **Health insurance, 401k with unlimited 25% match, unlimited time off.** We're more likely to complain to employees that take too little time off than the opposite.
- **Come to the office if you want, when you want.** We have a fully equipped lab that you can use when you need it. We trust you to figure out when that is.

**What we want you to do**

A typical project cycle for an engineer in this role looks like this:

- **Sales.** Sales are usually led by our CEO, CTO, and COO. But when we are near closing on a new client for which you will be a good fit, we'll bring you on to a sales call.
  - We expect you to talk about the work you will do for the client and answer the potential client’s technical questions.
  - We expect you to ask the client questions until you understand what it will take to do the work.
  - We are not process-focused. There are no boxes to fill or forms to submit. Being the technical expert on a call is about honestly and directly giving the client the best possible advice, even if it doesn't lead to a sale in the short term.
  - After the call, we will ask you to estimate how long (both calendar and FTE) it will take you to do your portion of the work.

- **Kickoff and planning.**
  - Once we sell the project and sign the contract, you'll be in charge. We expect you to work with the client to create the engineering specifications.
  - The most important part of the project is understanding what the client wants and finding a way to create a shared understanding about what Geocene will deliver for them, even if it requires a change order (even a change order that reduces the project scope).

- **Engineering.**
  - You're in charge of engineering and can build blue sky new products from scratch for interesting new startups. We expect that you will independently execute the specifications that you wrote during the planning phase. Suppose it is an initial prototype project (a lot of our projects are). In that case, a typical project would look like this:
    - create a functional diagram,
    - select parts,
    - create a schematic,
    - layout a PCB in your layout software of choice,
    - order a non-form factor board,
    - write functional firmware while waiting for the board to be made,
    - test the non-form factor board,
    - identify hardware issues, fix them, and respin boards,
    - write more firmware,
- bring it all up and test it all again,
- fix remaining bugs,
- and deliver it to the client.

Throughout the entire process, you'll stay in contact with the client, meeting their expectations for communication. You'll ask clarifying questions, unafraid to admit when you have made mistakes or don't understand the requirements. Our clients are usually very busy startups, so they will look to you for advice and expertise. A good candidate for this job would feel confident providing that guidance to a client.

That's it. We have some multi-engineer long-term projects with established clients. If you are working on one of those projects, your day will feel more like being an employee for that client. Sometimes our engineers are expected to juggle multiple clients simultaneously. We'll check in often, but it will be up to you if you are overwhelmed.

Qualifications

There are many paths to success here. It is hard to write those paths in a bulleted list. But, the core of it is that we want you to be able to do the things we described above.

On the one hand, if you have experience building IoT RTOS devices all on your own, you'll be well-qualified and we will be excited. On the other hand, if you have only worked for large companies and haven't done this type of work before, you might need to include a cover letter to explain why you think you'll be a good fit.

How our hiring process works

You'll send dean@geocene.com a resume, and he'll review it to see if you have the qualifications we need. Then, he'll set up a Zoom interview with our CEO and CTO. The CEO will ask you questions about your background and work history, and the CTO will ask you technical questions. In particular, he will try to get you talking about some technical subject of interest to you. It helps if that subject is related to embedded IoT development.

If that goes well, we will give you an engineering challenge. It should take about half a day and requires ordering a dev board of your choice. We pay a flat fee for this work that should cover parts and your time.

We'll have a final call where you will present the results of your challenge exercise to Geocene as if Geocene was the client. At that time, a significant portion of the Geocene team will join in to listen. After you present your work, we'll all have a chance to ask you a few more questions. Then, we will have a final huddle and decide whether or not to make an offer.

What an offer will look like

Our offer for this position will be somewhere between $135,000 and $160,000, bonus shares worth around $20,000/year vesting over one year, and equity around 0.75% of the company vesting over four years. We offer bonuses for new projects and clients that you bring to Geocene. We have significantly increased salaries and bonuses every year; we expect that pattern to continue.
How to apply
Send dean@geocene.com an email with your resume and anything else you think he would need to understand why you are the right person for this job.