



## ConservationTech startup seeks Design Engineer for exciting marine IoT/sensing project to create sustainable oceans

### Overview: IoT Design Engineer at SafetyNet Technologies

We're looking for a smart and dedicated design engineer to join our team for a 1-year part time contract. You will have one or more successful IoT projects under your belt already, and buy into our vision for inventing technologies to create a sustainable ocean. You want to work at an [awarding winning](#) conservation technology company that is making a difference in the oceans and you want to work with a similarly smart, generous and diverse group of people that put engineering, design, science, business and innovation together to solve intractable conservation challenges.

### Quick Summary

- Job Title: IoT Design Engineer
- Timing: Between August 2020 – July 2021, part-time role depending on your availability.
- Location: From home, and 3-5 Hardwidge Street, London SE1 3SY, UK (station: London Bridge)
- Website: [www.sntech.co.uk](http://www.sntech.co.uk)
- To apply: send CV, cover letter and portfolio or work examples to [enquiries@sntech.co.uk](mailto:enquiries@sntech.co.uk)

### What is the job?

We have secured funding to bring a new piece of ocean sustainability hardware to reality. We're starting from first principles to create a system that has sensing capability, certain IoT functions and cloud connectivity to server-side software that bridges to a data science product. We are looking for a design engineer to create our first prototypes of the hardware elements and small parts of the software elements of this system, bringing the concept to Level 5 Technology Readiness Level (TRL5, [description](#)). Using off-the-shelf modules is not beneath you, but you don't shy away from inventing new systems where you see gaps. This would be a run-of-the-mill project for consumer electronics, except that we are doing this in a punishing marine environment, so you will be inventive and challenge all assumptions, as well as working extensively with our experienced electronic and mechanical design team who have brought our existing marine product Pisces to market. Whilst pulling expertise from the rest of the team, you will be working with the CTO to run the project and delegate the design of subsystems as necessary.

### Responsibilities:

- Develop a new IoT system that comprises an environmental sensor, an internet gateway, and a cloud-based database.
- Work with the team to develop the specification and system architecture, researching and specifying the best off-the-shelf parts for the application, and defining where original parts need creating from scratch.
- Where there are unknown factors or incomplete information, you will conduct technical experiments to generate evidence to inform design decision making.

- Work with SafetyNet's electronic and mechanical engineering team to bring the IoT product to TRL5. This will involve prototyping in both hardware and software, and bringing together our existing deep knowledge in electronic and mechanical design.
- Work with consulting data scientist / software engineer to create best practice means to store sensor information in the cloud, ready for cleaning and analysis.

#### **Skills:**

- Must have experience:
  - Prior IoT, wireless comms or environmental sensing project(s) completed successfully
  - Embedded electronics, including interfacing with wireless communication hardware, integrating sensors, storing and transmitting information via a microcontroller
  - Firmware development
  - Working across disciplines, in particular integration with mechanical designs and accounting for mechanical factors.
  - Strong self-learning ethic: our proposed system is broad, spanning many areas of specialisation, so we do not expect you to be a master in all of them. But you will be needed to rapidly familiarise yourself with new technologies as the project progresses.
  - Ability to strike a balance between working independently and collaborating closely as the situation demands.
- Nice to have experience:
  - Has led previous projects, familiar with the requirements for working to a defined scope, budget and schedule. Can break down a complex task into smaller components and easily fit them back again into a bigger picture.
  - Comfortable with software engineering and programming for web applications
  - Experience with setting up internet gateways
  - Worked across interdisciplinary teams, can talk the language of several disciplines beyond own.
  - Whilst we have a fully equipped workshop available for you to use, the reality of keeping our staff safe means that we are encouraging working from home. This may mean that you have a space and ability to perform light electronics prototyping at home (and we can support you to enable this)

#### **About Us**

SafetyNet Technologies takes a user-centred design approach to building smart electronic solutions to overfishing and ocean conservation, backed by sound business models that help make the commercial fishing industry smarter and less wasteful. Based in London Bridge, [we are a team of 15 designers, engineers and business specialists](#) who have built strong links with the international commercial fishing industry, scientific community and regulatory bodies. There are solutions to the global overfishing problem and we aim to accelerate their discovery to enable maximum positive impact.

#### **Location**

You'll be working from home for the duration of the Covid-19 crisis, but you are able to visit our physical studio in London Bridge, London, UK, where you'll find a fully equipped mechanical engineering workshop and electronics lab. You might also bump into our tenants who work on

electric vehicles, kickstarter campaigns and hexapod robots. We will also equip you with everything you might need to work successfully from home.

### Extras

- Make a BIG social and environmental impact using your technical skills in an exciting startup
- 25 days holiday plus bank holidays, health and dental insurance plans
- Flexible working options (both location and times), opportunities for global travel

### To Apply

Please send a CV and Cover Letter expressing your interest in the role to [enquiries@sntech.co.uk](mailto:enquiries@sntech.co.uk). If you have a portfolio or non-confidential examples of your work to share, please do send them to us as well.

**We hope you consider joining us!**



*From left to right: Chris (Human Centered Designer, contractor), Dan (CEO), Larissa (Project Manager), Henry (Electronic Engineer), Nadia (COO), Steve (Principal Engineer), Aran (CTO)*