



Mission Neon Dawn

The European Space Agency (ESA) is calling for tenders for a satellite to measure the effects of climate change.

Your goal is to design the satellite with enough features to catch the eye of ESA

Consider a satellite to be a web server.

Your satellite must meet the following requirements to be considered and placed into orbit.

- Respond to requests on port 7192
- /position returns the satellite position at any time in the (x, y, z) frame where the center of the planet is (0, 0, 0) and its radius is 1.0.

- Send a POST request at startup to

[host-ip]/register

```
the content of the request must be of this form {
  type: "http" | "ws", // (ws for WebSocket, http by default)
  name: string // display name of the satellite
}
```

List of most coveted features

- Change altitude over time
- Change speed over time
- Use websocket, You'll need to send the satellite position in this form {
 type: "position",
 position: [number, number, number]
}
- Allow an administrator (you) to modify satellite properties remotely (speed, altitude & orbit).

Before you get started, you need to understand what a web server is, what it does, and how HTTP works in general.

To get started, choose a web server in the language you want

- Typescript
 - Deno.serve (deno.com) | Bun.serve (bun.sh)
 - Elysia (elysiajs.com)
 - Oak | Hono
- Python - Flask
- Go - Fiber

You are free to use whatever you want. Even outside of this list.