

# Firefly Take-Home

*Firefly's platform is built around a customer's floor plan, enabling live incident mapping, dynamic routing to life safety assets, and real-time data sharing with emergency services.*

We want to add a live location indicator for individuals in need of help. This could be viewed from the user's perspective, showing their live position and nearby context, or from an operator's view within Firefly's dashboard.

**Main Task:** Design and implement a live location indicator on a map, as above, and implement one extension task below.

**Extensions:** please implement one of the below, or choose your own

- **Simulating an incident nearby** – What would it look like if a crime or emergency were unfolding near the user? What info should surface? How does the UI guide them?
  - Icons, event timeline, etc.
- **Real-time risk assessment** – Could you pull in or simulate external data (crime reports, 911 calls, weather) to give users more context about their surroundings?
  - E.g. news feed of local events
- **Route safety visualization** – If a user is moving or planning a trip, how could the UI highlight safer vs. riskier routes based on live data?
- **Emergency response UI** – How would the design shift if the user needed to alert authorities or notify contacts in real time?
  - Initiate an emergency via the UI, and subsequent flows
- **Augmenting the map** – Could you overlay relevant safety zones, evacuation routes, or high-incident areas in an intuitive way?

## Tech notes:

- MapBox for mapping <https://visgl.github.io/react-map-gl/>
- [Deck.GL](#) or React 3 Fiber optional for additional enhancements
- We love [Citizen](#)'s approach to real-time mapping - feel free to check out their app for inspiration

Code quality and UI polish are super important to us. We're after thoughtful design, clean implementation, and an intuitive & delightful experience.

## Use of AI:

As a startup, we expect developers to use all of the tools available to them. Feel free to use

LLMs to assist you, but you should be the one making engineering design decisions and have a full and deep understanding of your code. You will be asked follow-up questions in order to determine your understanding.

Please include a README with your submission that outlines your decision making process, including important considerations made along the way.

**Time expectations:**

Please spend no more than 3 hours on this project. We don't expect a massive load of features; we are more curious to see what you think is important, and how you scope your work to appropriately match the time limit.