

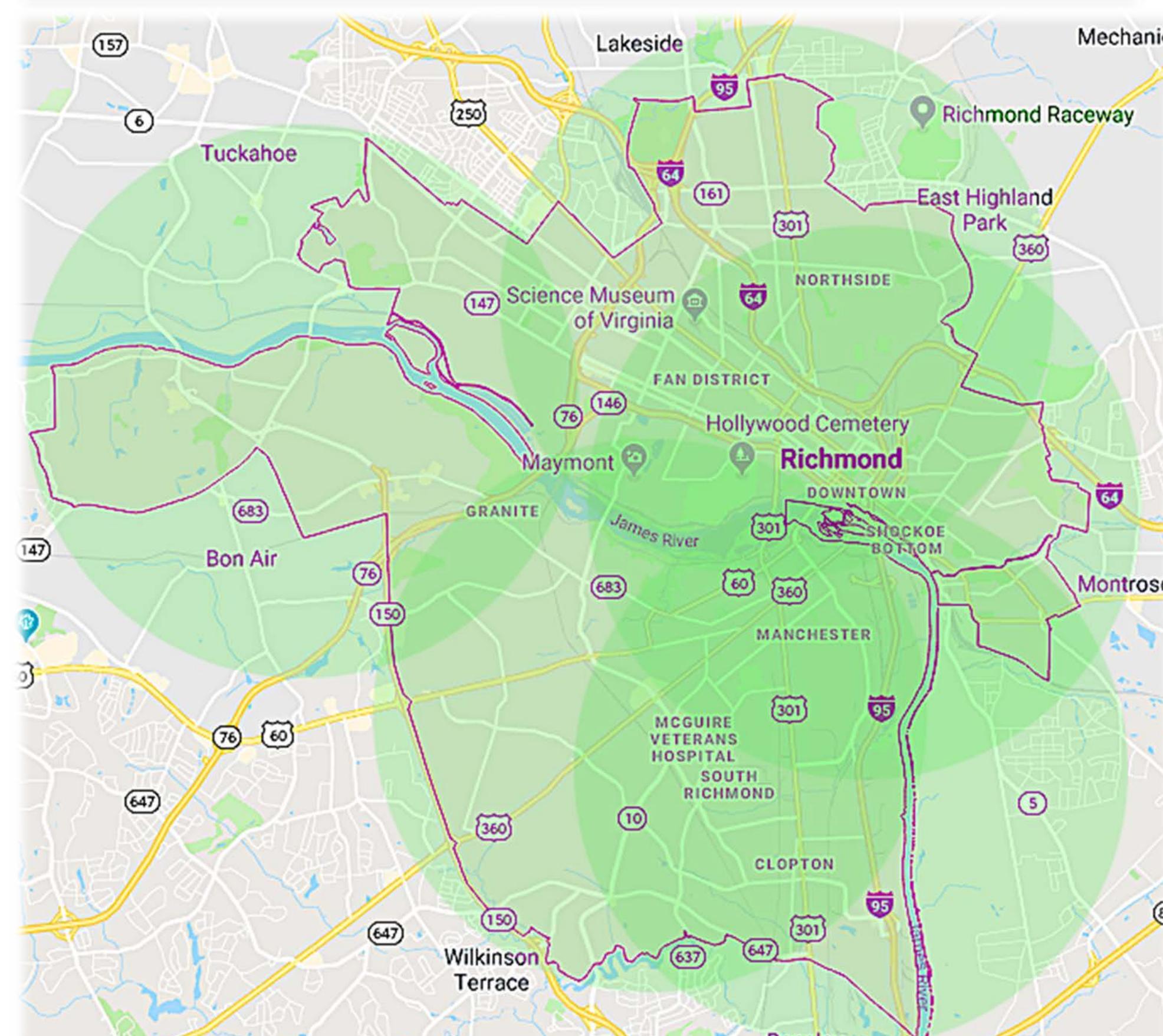
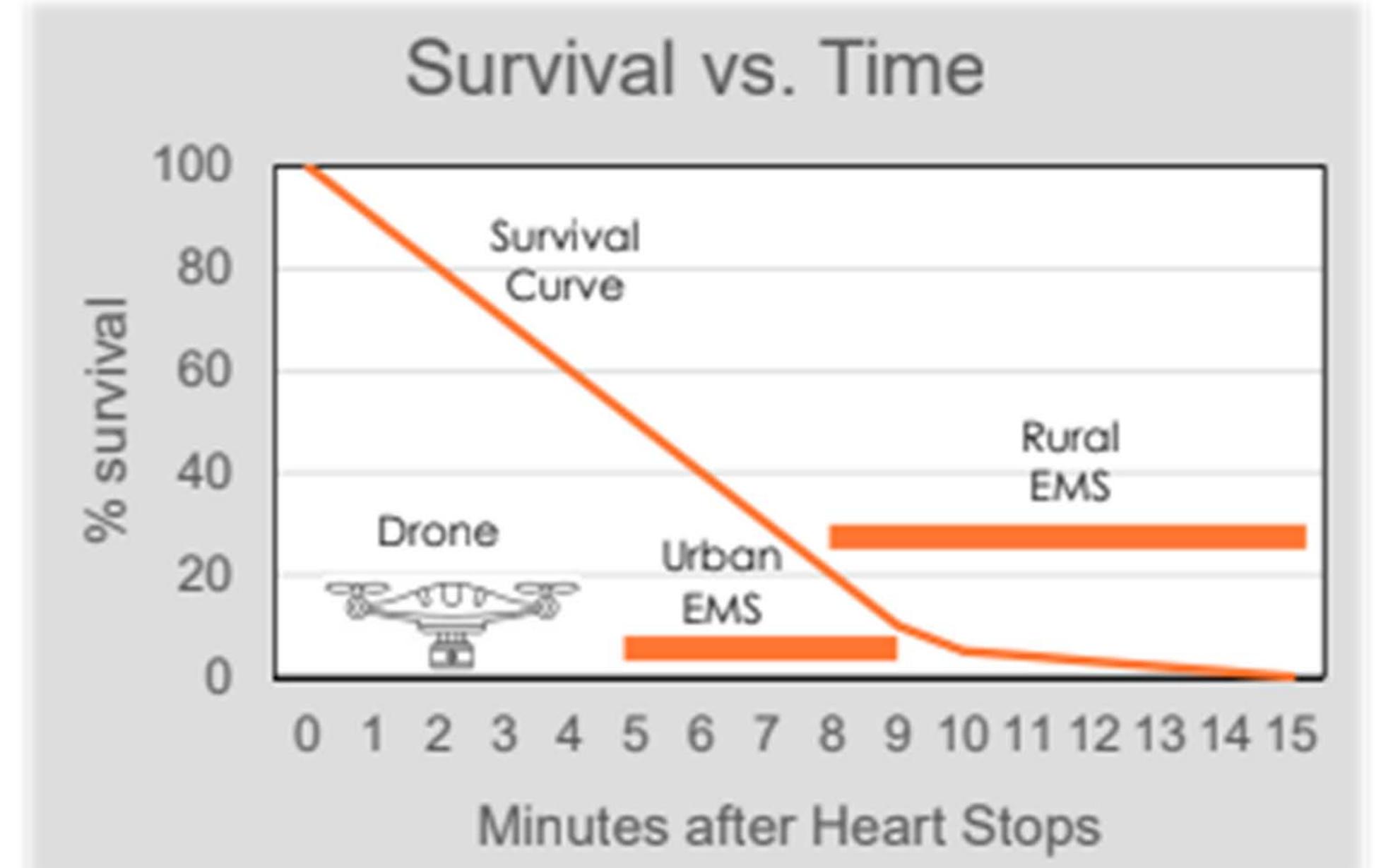


Drone Delivered Naloxone System

Team members: Tin Vu, Tyler Griggs, Anthony Caliri, Sreepradha Sreekesh | Faculty adviser: Tamer Nadeem | Sponsor: Dr. J Ornato, Richmond Ambulance Authority

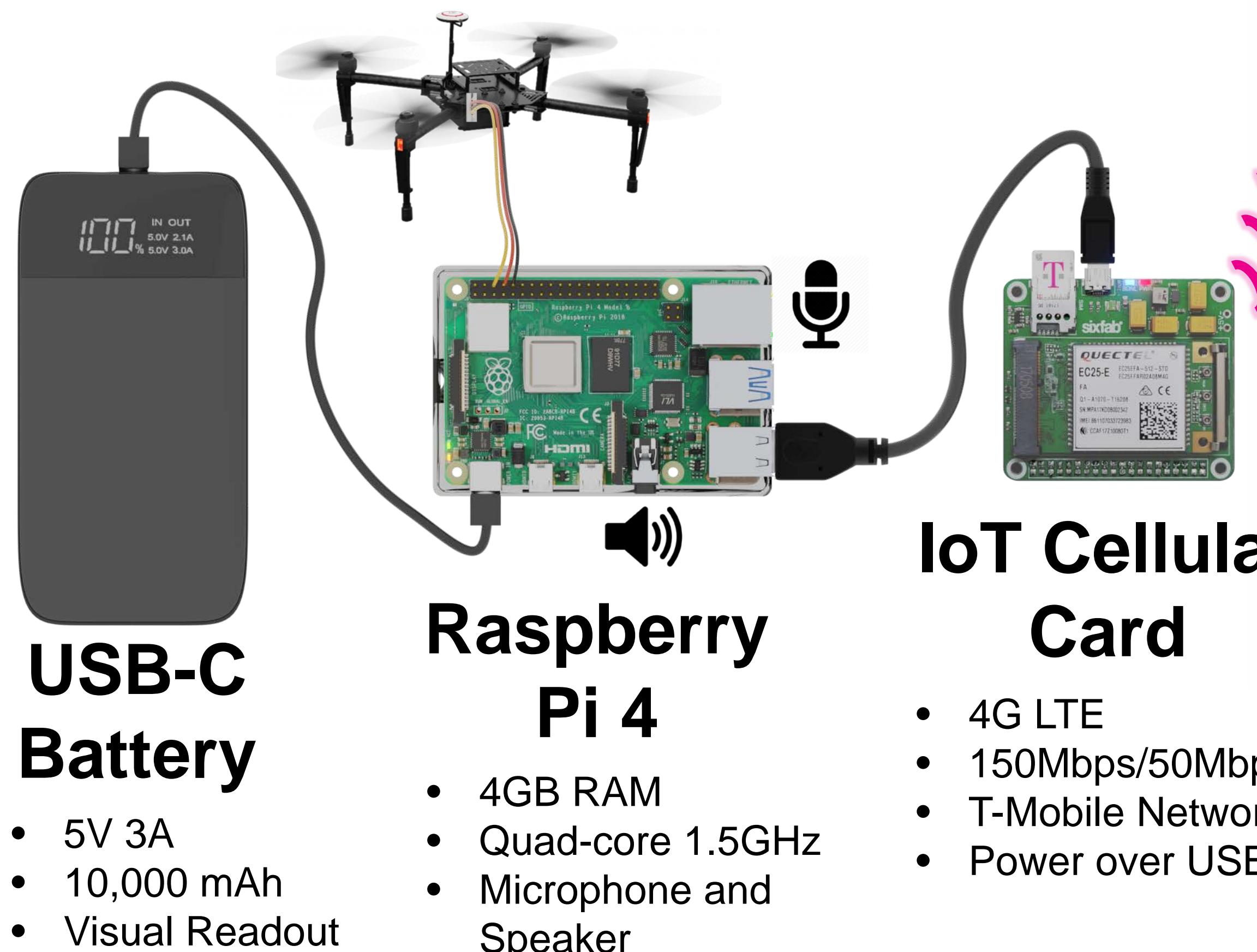
Public Health Emergency

During an emergency like an opioid overdose or cardiac arrest, every moment the patient is left untreated lowers the probability of survival. These situations require a device or medicine fast in order to save the patient's life.



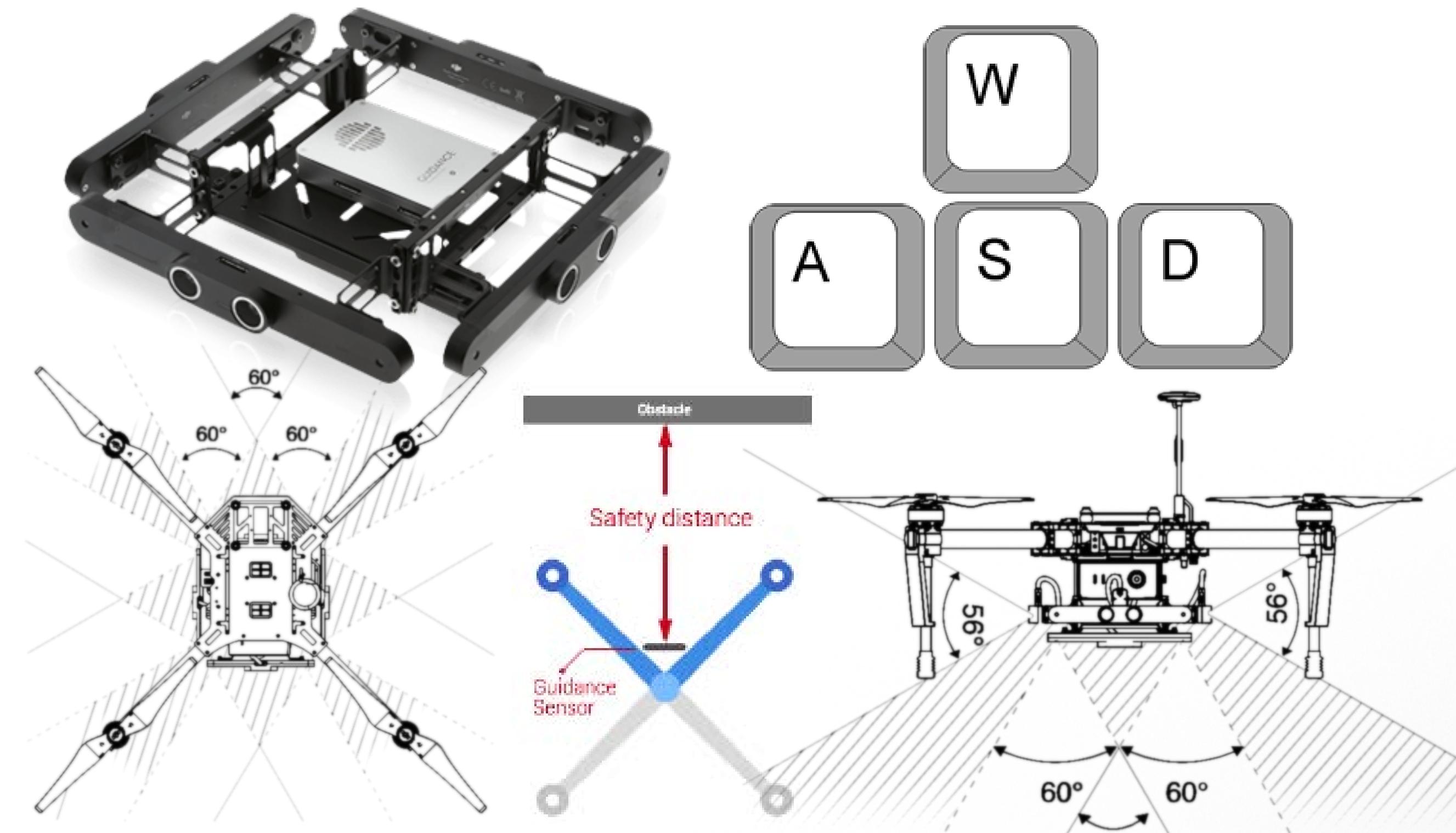
The response time would be less than 2 minutes for any point in the city during full system coverage.

Onboard Computer System

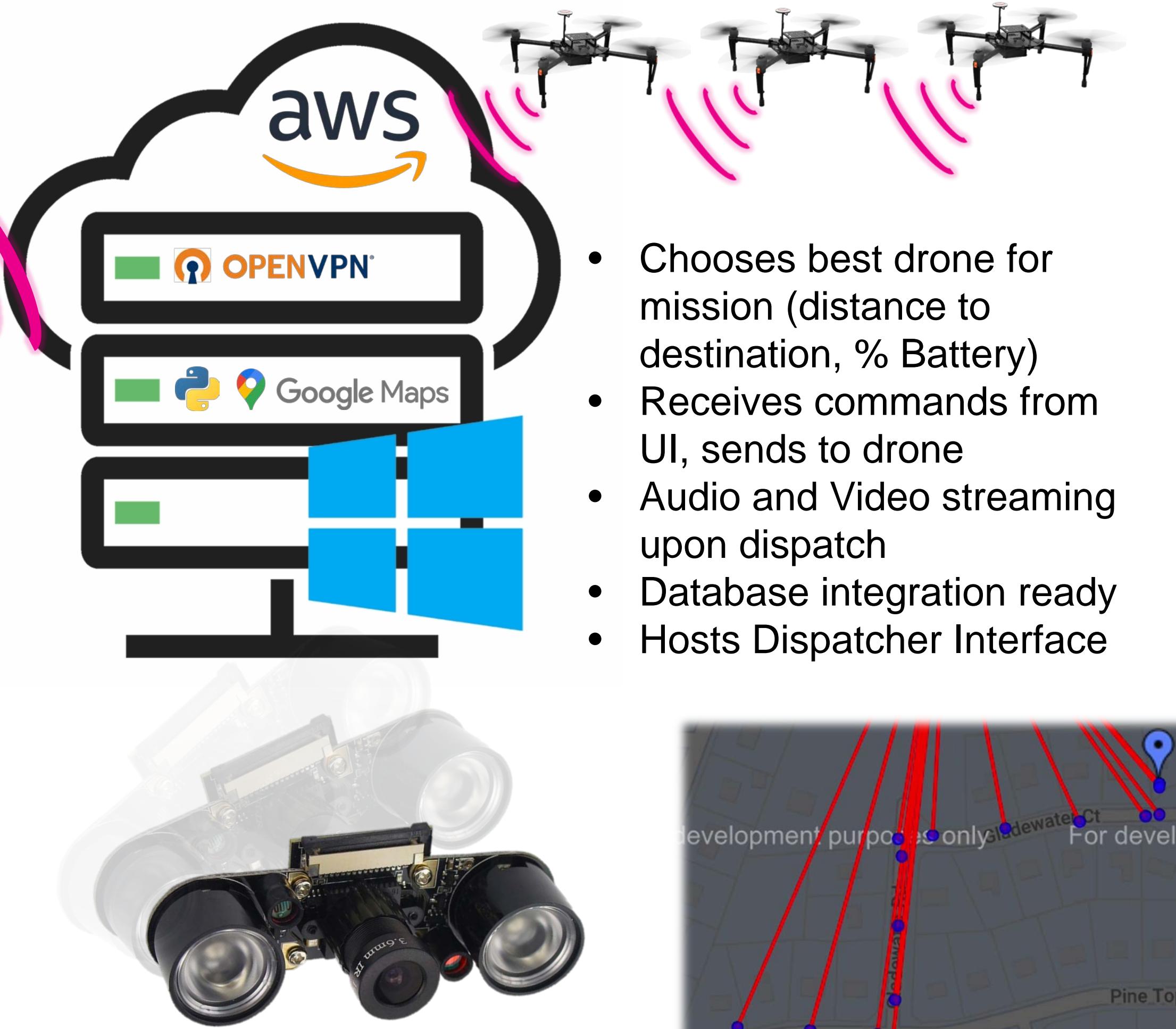


Detect-And-Avoid Obstacles

DJI Guidance sensors autonomously stop the drone and alert the dispatcher to avoid obstacles manually and proceed.



Cloud Server

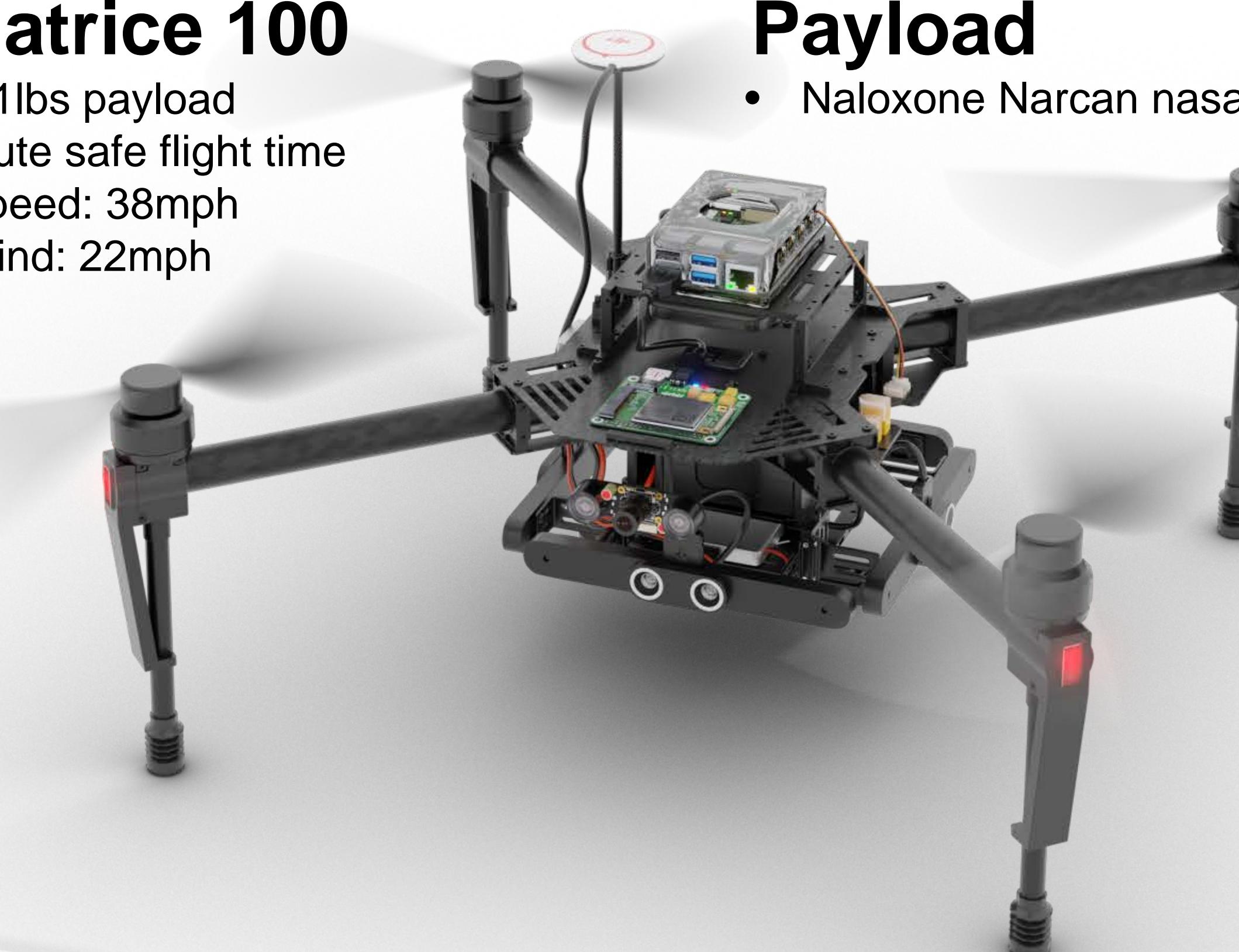


Smart Routes & Landing

- Given a destination, server will automatically generate waypoints for route
- Pause & Click points on map to create custom route
- Safe Altitude for each point is mapped by district (The Fan, VCU, Church Hill, etc.)
- Automatic Landing-Sequence confirmed by dispatcher

DJI Matrice 100

- 7lbs, +1lbs payload
- 20 minute safe flight time
- Max Speed: 38mph
- Max Wind: 22mph



Payload

- Naloxone Narcan nasal spray

