

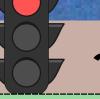
RESCUEFLOW

Every second counts GROUP 21











Ambulances can wait up to 40s at red lights Drivers don't always react to sirens Every stop wastes precious seconds — or lives

SOLUTION: INTRODUCING RESCUE FLOW!

GPS sent to server Checks for Green Wave (predetermined route) Lights turn green ahead Traffic moves out of the way

HOW WE BUILT THE PROTOTYPE



ESP32 + GPS + LED traffic lights



Wi-Fi connection to a remote server



Server checks for Green Wave eligibility



If in Green Wave — LEDs turn green

REAL WORLD SETUP



IOT NB-IoT SIM in ambulance and traffic lights



connectivity setup (e.g. NB-IoT modules)



Remote server handles GPS and Traffic Lights







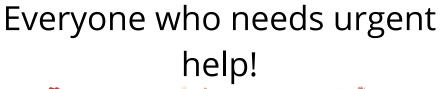












TARGET USERS



Anyone can face a life threatening emergency



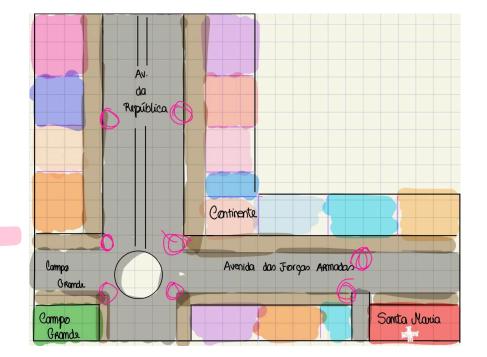
TECH HIGHLIGHTS

Accurate vehicle location Vehicle-Light communication

Smart Green Wave control Compatible with city systems

Model Testing

- 1. RC car simulates ambulance
- 2. Real map: Av. das Forças Armadas + Av. da República
- 3. LEDs switch automatically
- 4. Dynamic response validated



What We Gain

Faster response = + lives saved Safer, smarter streets Built for real emergencies Uses existing infrastructure







