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DIRGA KIT
DISASTER MITIGATION KIT

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LEAD-UP

- Inability to connect to victims due to disfunctional telecommunication infrastructure caused by disasters
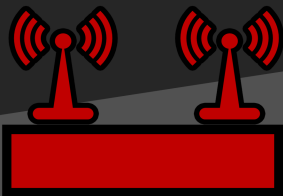- Lack of detailed field condition for SAR teams from voice-only communication
- Less effective SAR team coordination from lack of bird's eye view on traveled areas

ALTERNATIVE

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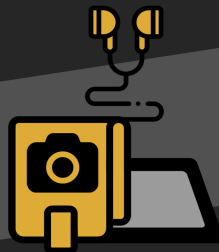
A system designed to aid in disaster relief!

PETS

PETS (Portable Emergency Transceiver Station) is a device made using Mini PCs for processing, Software Defined Radio with antennas for radio compartment, and equipped with GPS module for location tracking.

Features:
- Portable
- Act as cell towers
- Notify user of new subscribers
- Store GPS data

RESPACK

RESPACK (Rescuer Telecommunication-Pack), is a wearable device built with Single Board Computer equipped with a camera module for picture taking, a GPS module for location tracking, an audio jack for voice I/O, and an LCD screen for display.

Features:
- Portable
- Communicate with other users
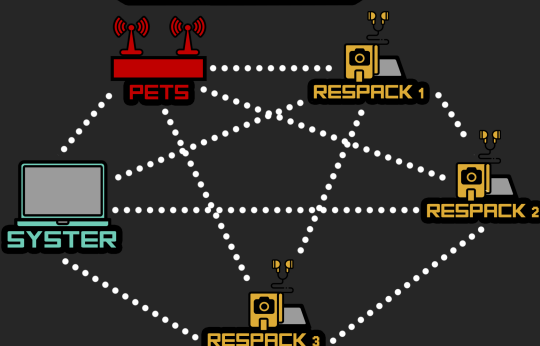- Take and send pictures to other users
- Store GPS data

SYSTER

SYSTER (System Interface & Integrator), integrates with PETS and RESPACK, and allows easy configuration and data visualization.

Features:
- Visualize PETS's and RESPACK's GPS track
- Display potential areas with victims
- Display sent and received messages on a certain phone
- Show PETS's subscribers list
- Easily configure PETS
- Show pictures taken with RESPACK

USAGE

PETS
RESPACK 1
RESPACK 2
SYSTER
RESPACK 3

PETS can be mounted to a vehicle during deployment. When a victim is nearby, he/she can automatically connect to PETS thus allowing calls/SMS. PETS also records GPS.

RESPACK can be attached to the user, and is to be used with other RESPACKs. It allows calling and picture taking, and sends the picture automatically to other RESPACKs. RESPACK also records GPS.

When PETS and RESPACKs are near SYSTER, they automatically connect in a mesh network, allowing data transfer and configuration. The data transferred are GPS and configuration files from PETS and GPS and pictures from RESPACK.