

Needs Identification and Problem Statement

Needs organized in categories

Organized in the following categories: Rescuing, user friendliness, cost, material, health/safety concerns

- Detecting kids or pets
- Detecting temperature and carbon monoxide (CO) levels
- Communicate with the guardian or passerby
- Easily installable
- Compatible with all cars and/or buses
- Compatible with most common mobile phone OS (Android, iOS)
- Customizable optional features
- Acceptable cost worldwide
- Can be used in extreme conditions (pertains mostly to the material)
- Doesn't create distress for locked kid/pet

Needs in order of prioritization

Need number	Need	Importance
1	The system can detect a child/pet in the car	5
2	The system can detect the temperature and carbon monoxide levels in the car	5
3	The system can communicate with the driver/caregiver and passerby	5
4	The system is compatible with all car/bus models	4
5	The system can work in extreme conditions	4
6	The system does not distress the child or animal	4
7	The communication system can accommodate all users	4
8	Easily installable	3
9	Low cost	3
10	Offers optional customizable features	1

Justification for each need

Need #1: The ability for the system to detect a child or pet actively sitting in the vehicle has the highest priority because the users (parents and passerby) need to know if their child or pet is undergoing any complications that could lead to the possibility of death.

Need #2: directly linked to the product's functionality, and of utmost importance to ensure the child or pet's safety.

Need #3: The need to communicate to the user is dependent on the functionality of detection of the child or pet.

Need #4: All users should be able to connect their car/bus to the system. This is a high priority to allow the users to use the system.

Need #5: This is prioritized at a level of 4 so that the system can withstand extreme conditions in any location in the world.

Need #6: This needs to be prioritized at a level of 4 so the child or animal is not affected by the system.

Need #7: All users should be able to use the system regardless of their location. This is a high priority to allow all potential users to be accommodated to the system.

Need #8: This need is prioritized at level 3 as instructions may be provided to aid installation and having something that is easily installable won't affect its functionality.

Need #9: This need is prioritized at a level of 3 since the system will not be at a very expensive cost nor low cost. Product functionality is more important.

Need #10: Customizable features are lowest priority since the functionality is independent.

Problem statement

A need exists for drivers/caregivers to quickly rescue young children or pets stuck inside a car or bus that is turned off, using an alarm system which can alert the caregiver/passerby at any time and place, is easy to install, and compatible with most cars and cellphones.

Other questions (information we would like to clarify)

- How important is it for the client to have a mobile app developed as part of this product?