Prototype #2

Team #11

“There is a need for a carbon monoxide, temperature and child/pet detection device capable of working and connecting to all vehicles to notify the driver of the presence of a child/pet and to detect dangerously high/low temperatures and levels of CO.”

Steps to solve problem

Is there a child?

Is the child in danger?

When adult walks away:

If child is there and the conditions are dangerous

Set alarm off

Is there a child?

This sensor will detect the presence of the child based on a Passive Infrared Sensor(PIR).

Is the child in danger?

In simple terms, when the sensor detects considerable amounts of carbon monoxide, the voltage rises, and the delta of voltage can be used to calculate CO levels.

Different PPM levels, different risks

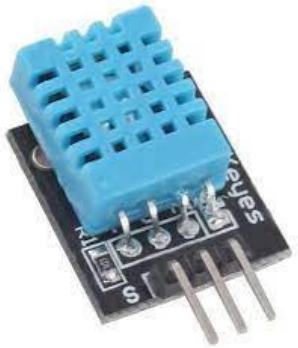
The sensor can detect anything ranging from 10 to 10000 PPM. The low CO levels are considered anything below 51 PPM, while the high level is 100 and above. The cut-off point, where it’s absolutely necessary to ring an alarm is at 200 PPM.

2. Is the child in danger?

Detect temperature

If the temperature is too high then the child is in danger

Prevent heatstroke



When the parent walks away

Using bluetooth connection

Detecting when the phone is disconnected

Information stored before disconnection

App reacts in consequence to the value that is stored into it