Hot Car Life Alarm

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We successfully built an original, modular, working prototype of a device to fit the gap in the market for protecting against hot car deaths. The Hot Car Life Alarm detects the presence of living organisms left in a vehicle and alerts others to its presence. For this device to effectively work, it must be as small as possible to fit behind the vizor of the car, while not disrupting the driver's view. Additionally, it cannot attach to the windshield since doing so is against the law. The system uses a long-wave infrared camera and a temperature sensor to detect the presence of lifeforms in the vehicle. Upon a positive detection sequence, it triggers a bright LED to flash in a "SOS" pattern. To test the system, we turned on the AC/heater and ran the code. We recorded what happened each time as it grew hotter/colder then repeated the test 10 times each to ensure accuracy. The system detected everything not completely hidden from view (only 2 specific locations) and responded to the detection results appropriately 100% of the time. Through the analysis of our results, we have determined that as long as a single part of the occupant is visible, the device can successfully detect and alert those present that there is an occupant in the vehicle. While the current device is currently not as feature filled as we initially planned, it functions exceptionally well at the given task.