A System for the Prevention of Vehicular Heatstroke

Myrick, Robert

Every year close to 40 children die from heatstroke after being left in a car. This problem has gone largely unchecked in today's vehicles, so the goal of this project was to end these deaths. The system created had to fill three main criteria. The first was that the method for detecting a person must be able to differentiate between a person and cargo, the second was that the danger must immediately be ended, and the third was that the system must only work when the temperature is dangerously hot. The system created consists of an RC Time circuit with a capacitive touch sensor to detect people, an RC Time circuit with a thermistor to measure temperature, and switches to restart the program when any door is opened then closed. The program first checks for a person, and if a person is found, the temperature is checked. If the temperature is above 35°C, then "life saved" is displayed (simulating an opening window). In all 15 trials the system successfully detected a human and successfully completed the program when the temperature exceeded 35°C. These results prove the validity of this design and show that it is possible to save many lives every year with this system.

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