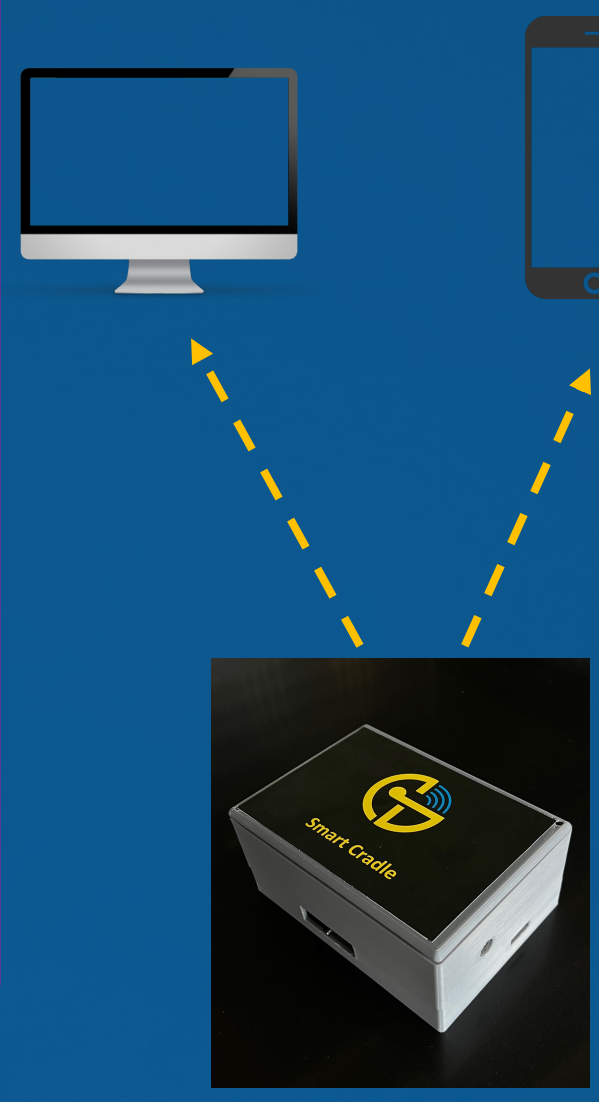
Smart Cradle

E-NNOVATE
International Innovation Show

Abstract:

This device is designed to help parents in keeping their baby safe. It can communicate with any modern device using a webpage. The device is placed inside the baby's cradle, and uses Its numerous sensors to detect any accident that may happen to the baby. The sensors are a microphone to detect crying, a thermometer for keeping an eye on the temperature, and a gyroscope to detect if the cradle is being tilted or if it has fallen. It also includes a speaker to play music. The device creates a network that you can connect to using WiFi, and view a webpage containing the status of every individual sensor, as well as a music player. The sensors' threshold can be configured in this page as well. If any of the thresholds are broken, the website will send a notification and play a sound to alert the parents, the area for the sensor that has exceeded its threshold will be red for parents to quickly identify the problem, wasting no time to find what is wrong. The music player has a very intuitive interface so anyone can work with it.



Features:

- Detects accidents that may happen to the baby
- Monitor temperature
- Recognize loud sounds such as crying
- A webpage to monitor the status and configure the device
- Alert the parents in case of any problems by sending a notification and playing a sound
- Easy to use
- Able to play music to calm the baby

Applications :

Any parents who have a baby that sleeps in a bed or cradle can use this device to help them keep their baby safe.

Can use in kindergartens , ….

Technical Specifications

- **Input Voltage 5VDC-3A**
- **Operating Voltages 5VC and 3.3VDC**
- **Consumption current at peak load 3A**
- **Consumption current in an unloaded state 0 miA**
- **Operating temperature range -10 C' to 70 C'**
- **RS232-UART protocol between raspberry pi and AVR**
- **Three working modes: active, idle, power down**

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