

Baby Monitoring Device.



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- Interactive System Engineering
- Electronic Engineering

Agenda



- Monitor vital sign
- Detect changes
- Notification
- User Interface

Concept



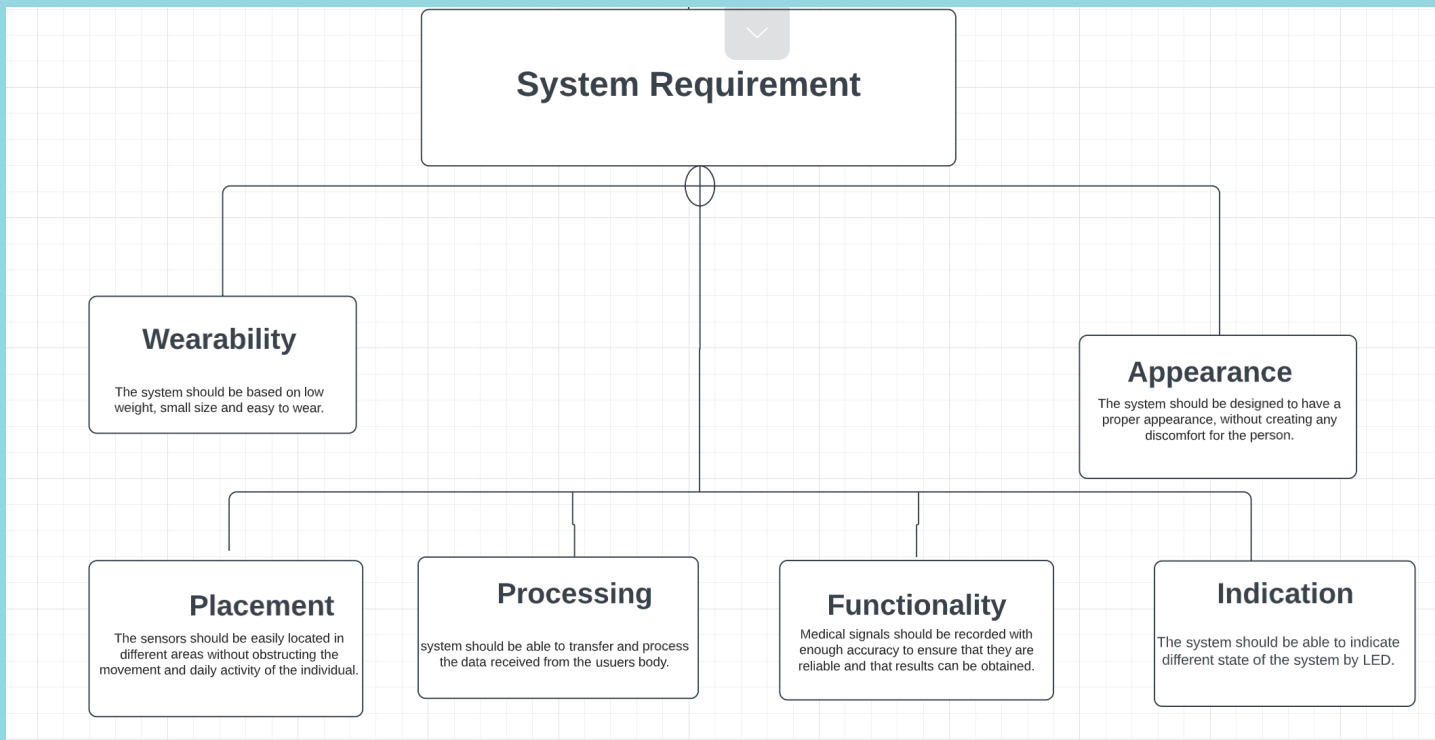
- Heart Rate
- SpO2
- Sleep patterns
- Breath

Research

SIDS death Rate



System Model



Software Requirement

```
graph TD; SR[Software Requirement] --> Data[Data]; SR --> Scalability[Scalability]; Data --> Warn[Warn]; Data --> Efficiency[Efficiency]; Scalability --> Ability[Ability]; Scalability --> Security[Security];
```

Data

The software system should display graphical and numerical symptoms, and report the health status of the device user.

Scalability

The system should have the ability for upgrading, and the software components should be updated for the developed system.

Warn

The system should have alert and warning capabilities for the user.

Efficiency

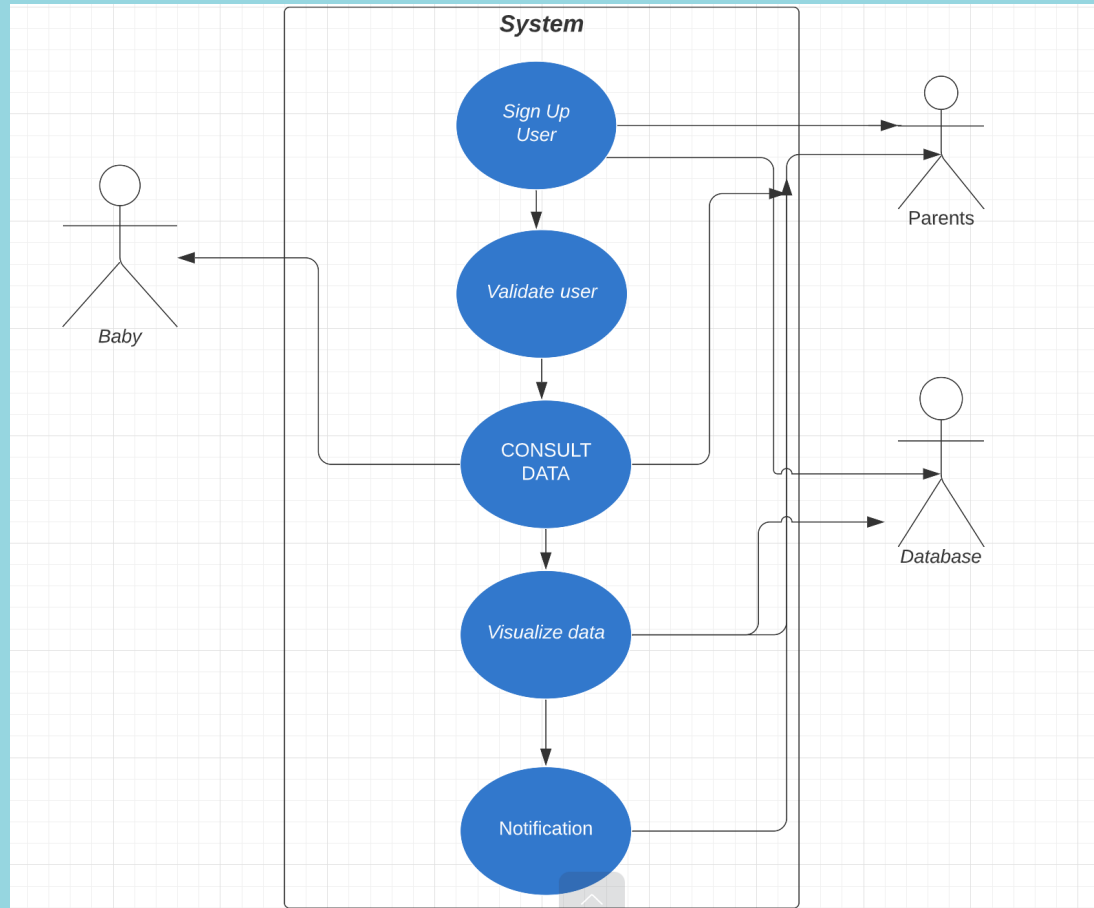
The system should operate correctly at the same time during different conditions.

Ability

The system should be designed to be smart enough to provide the user with sufficient performance.

Security

The transmission of medical signals should be encrypted and the measured data should be considered for the privacy of the individual.



Hardware Specification



- Microcontroller
- Sensor
- Battery
- Charging Plate
- Medical Fabric

<https://github.com/moshiour-rahman/SS2022-ELE-Interactive-Systems-Engineering>

User Interface



<https://www.owletcare.com/products/owlet-dream>

Thank you.