

WHAT IS SIDS ?

Paci-Sids



DESIGN



Future Work



What is SIDS ?

CDIO

Sudden infant death syndrome (SIDS) is the unexplained death, usually during sleep, of a seemingly healthy baby less than a year old.

SIDS is sometimes known as crib death because the infants often die in their cribs.



SIDS

Sudden Infant Death Syndrome

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RISK FACTORS:

Prone and side sleeping, soft bedding, bed sharing, inappropriate bed surfaces, exposure to tobacco smoke, and prematurity

PROTECTIVE FACTORS:

Breastfeeding, pacifier use, room sharing, and immunizations

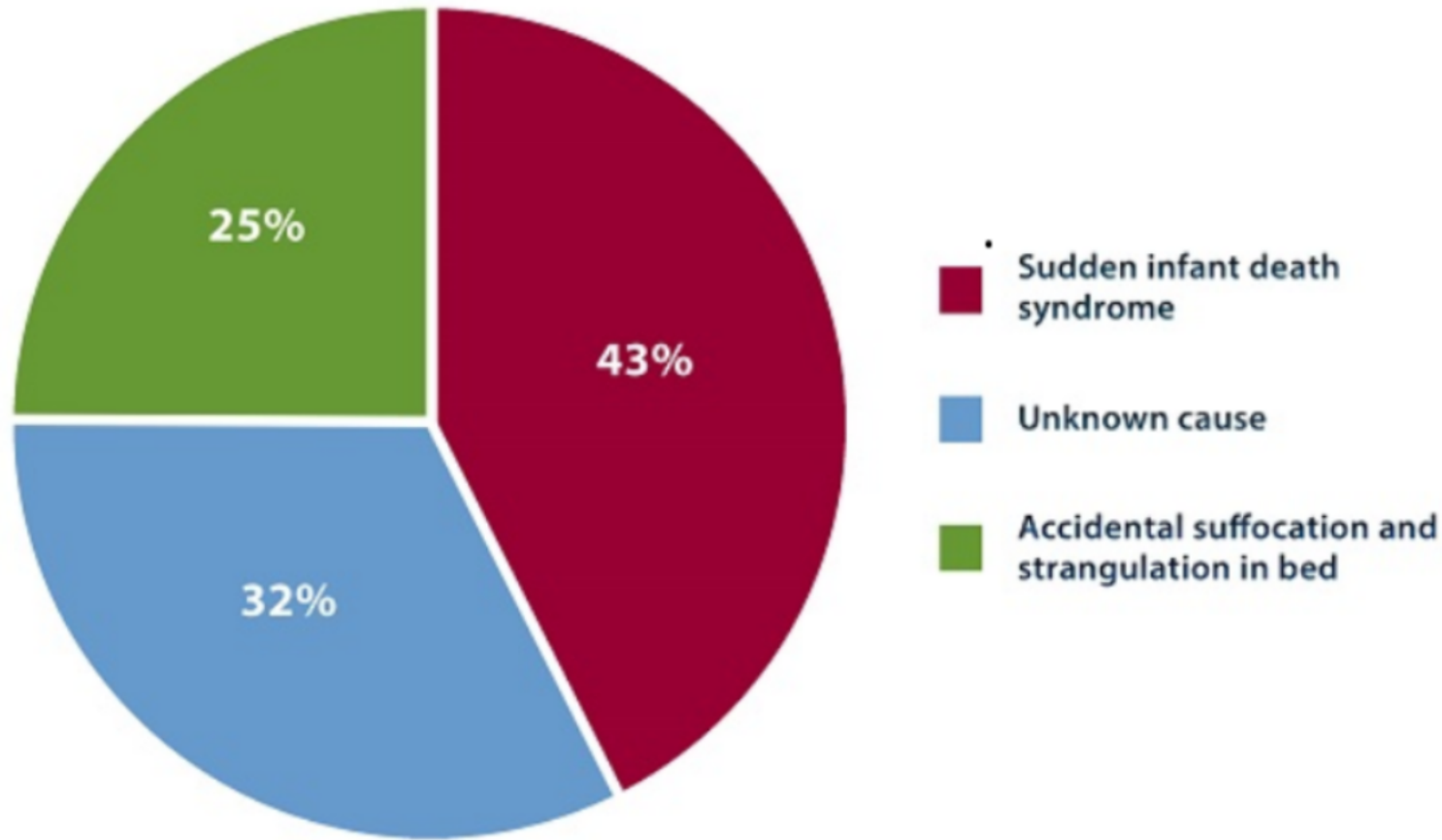
RISK REDUCTION:

Safe sleeping environment



Causes of Unexpected Infant Deaths , 2015

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SOURCE: CDC/NCHS, National Vital Statistics System, Compressed Mortality File.



More Facts!

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6x

Infants placed on their faces to sleep are 6x more in risk than those sleeping on their back



270

270 Babies die yearly in the UK, which is 5 babies each week !

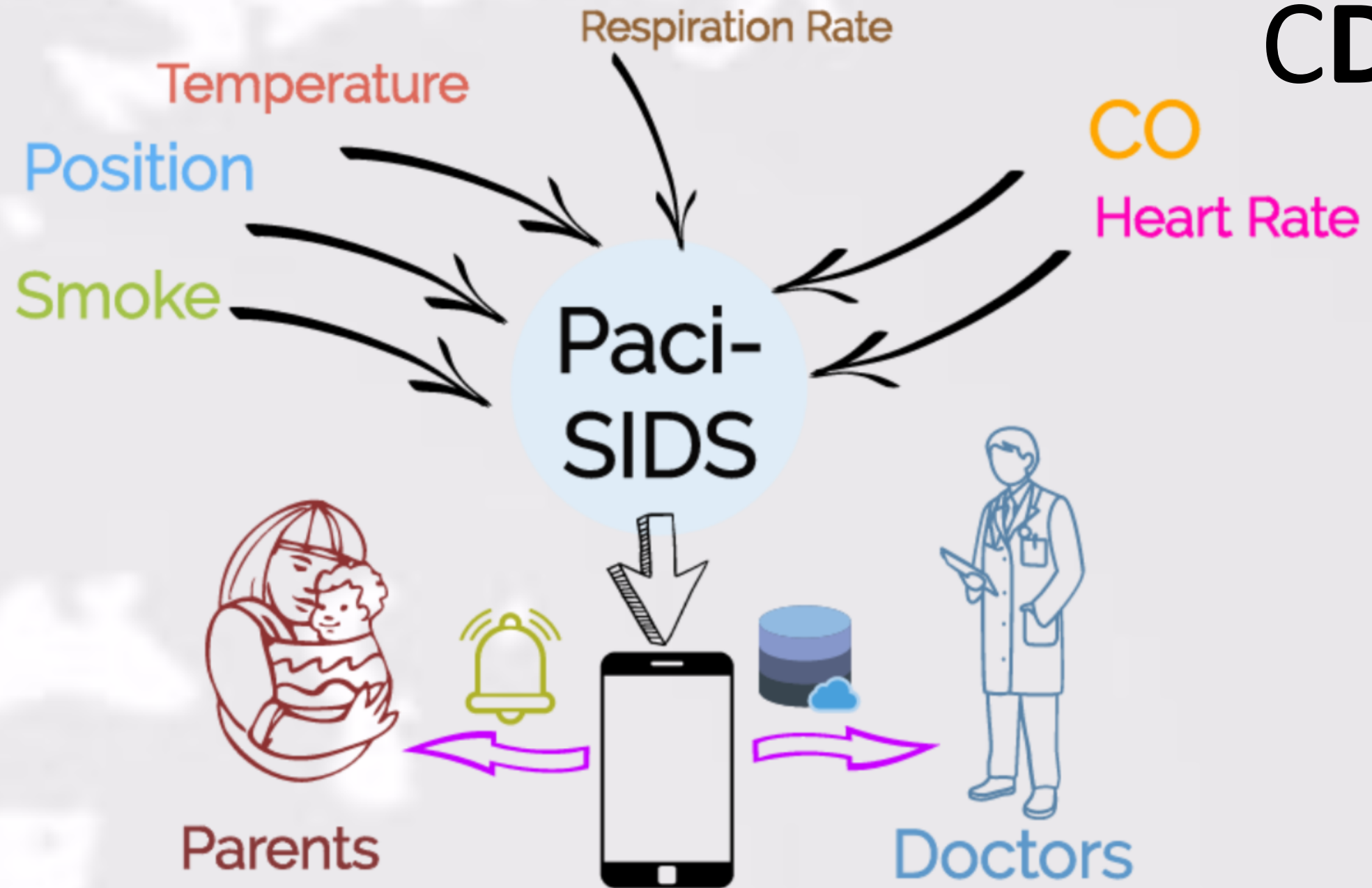


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SIDS Best Practices and Considerations

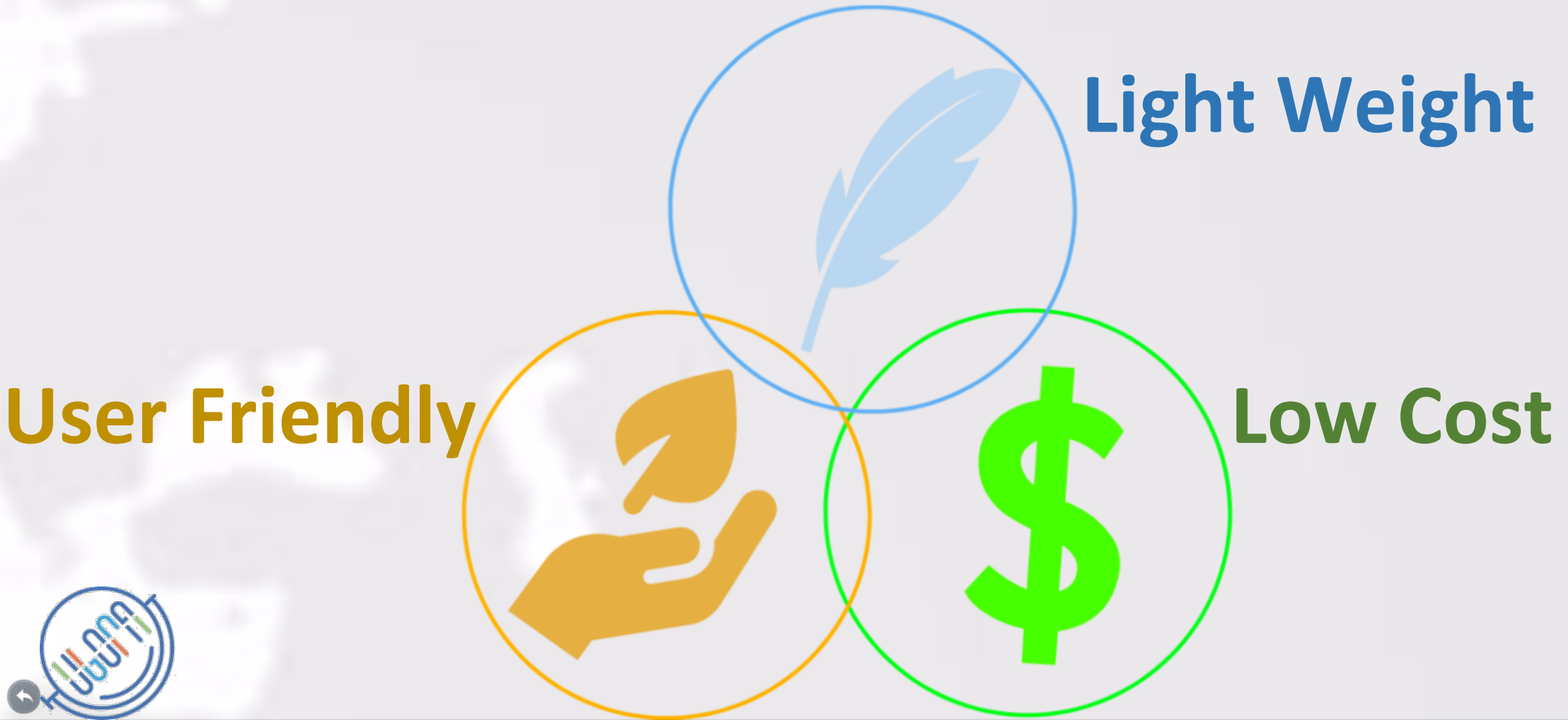


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Paci-SIDS Properties

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Class of risk and Standards

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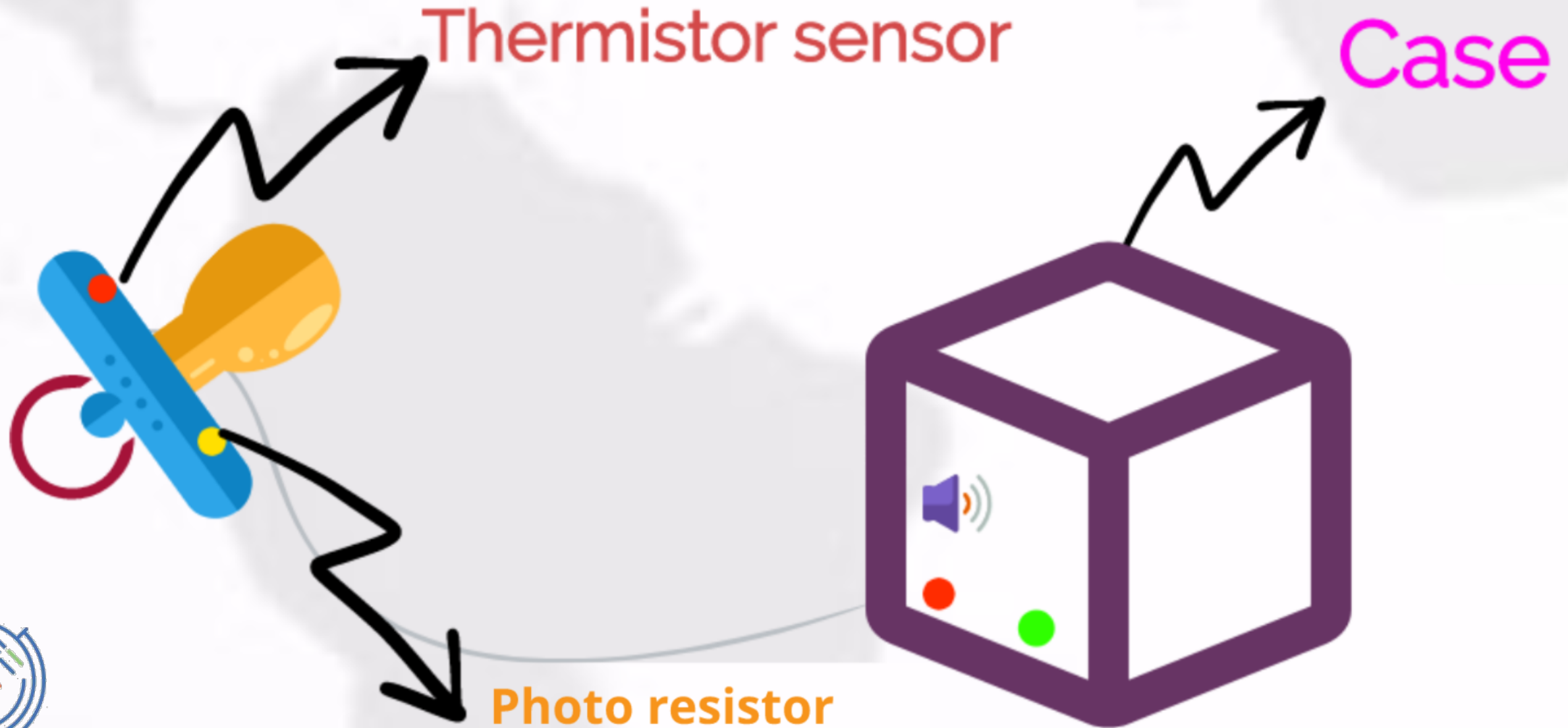
- Paci-sids is a **Class IIB** Device
- **EN 12586:2007** : Child use and care articles. Soother holder. Safety requirements and test methods
- **EN 1400:2013** : Child use and care articles. Soothers for babies and young children. Safety requirements and test methods.
- **BS EN 12868:2017**: Child use and care articles. Method for determining the release of N-nitrosamines and N-nitrosatable substances from elastomer or rubber teats and soothers.
- **ISO 18778:2005**: Respiratory equipment. Infant monitors. Particular requirements.
- **ISO 7000:2014** : Supply chain risk management. Supplier prequalification.
- **IEC 60601:2016** : Medical electrical equipment. Guidance and interpretation. Electromagnetic immunity: performance of medical electrical equipment and medical electrical system.





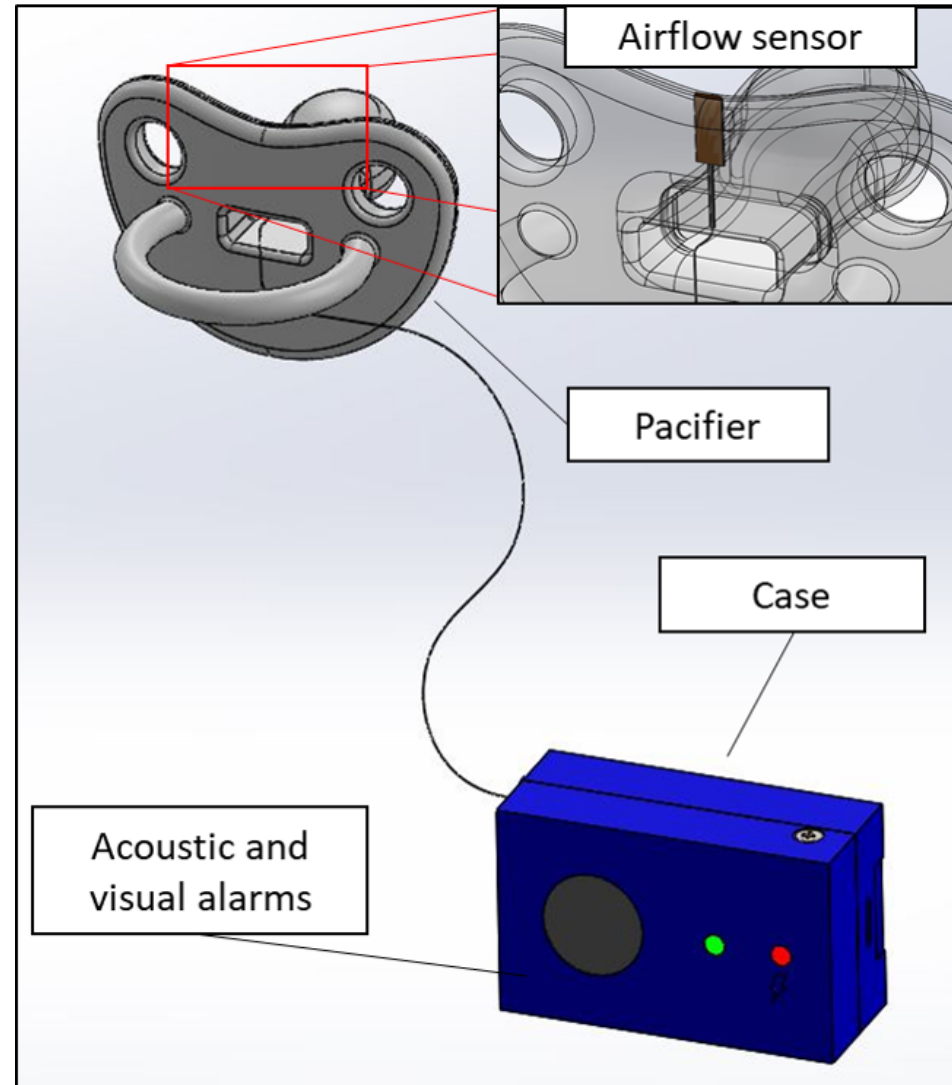
Pacifier Based Implementation

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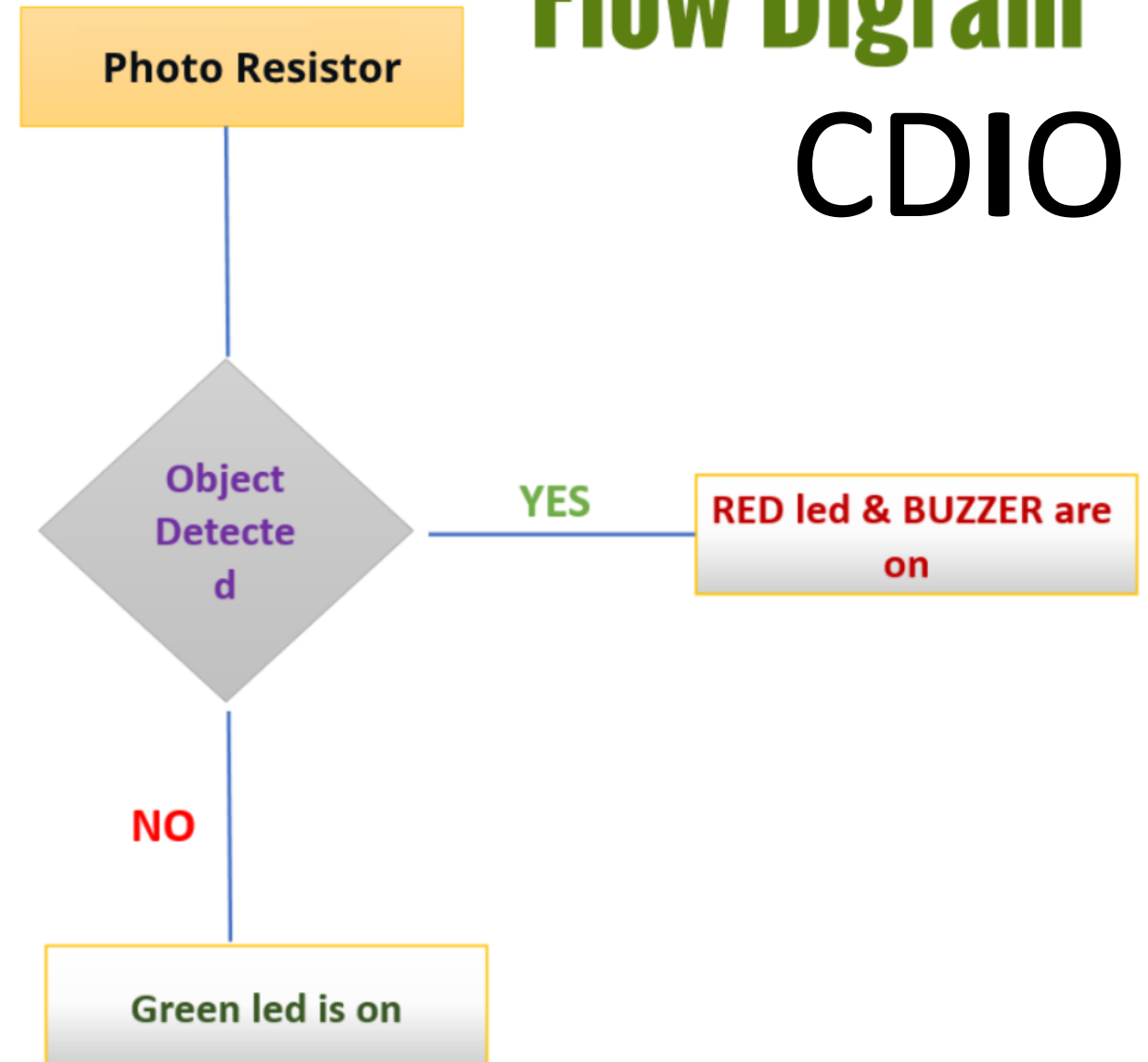
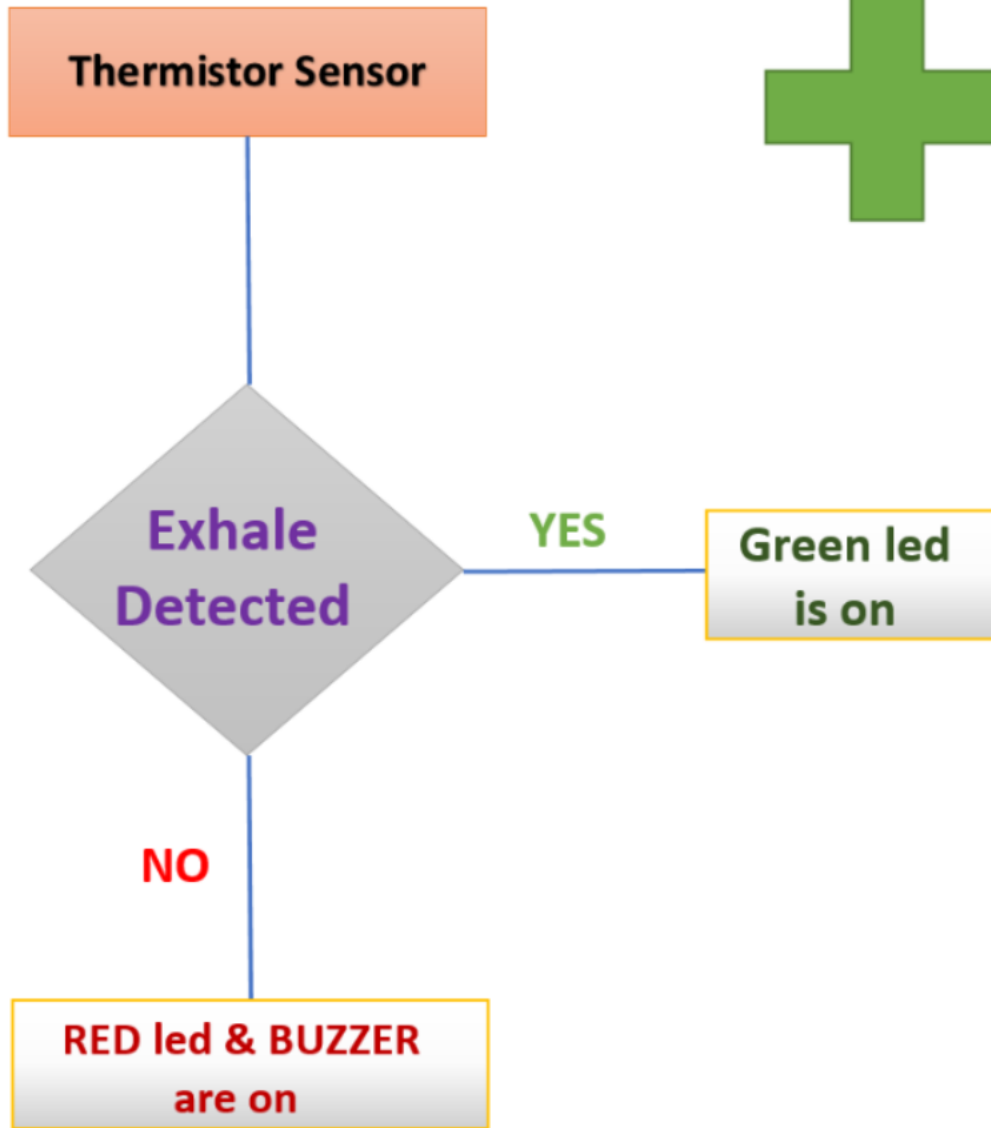


Pacifier Design and 3D Printing

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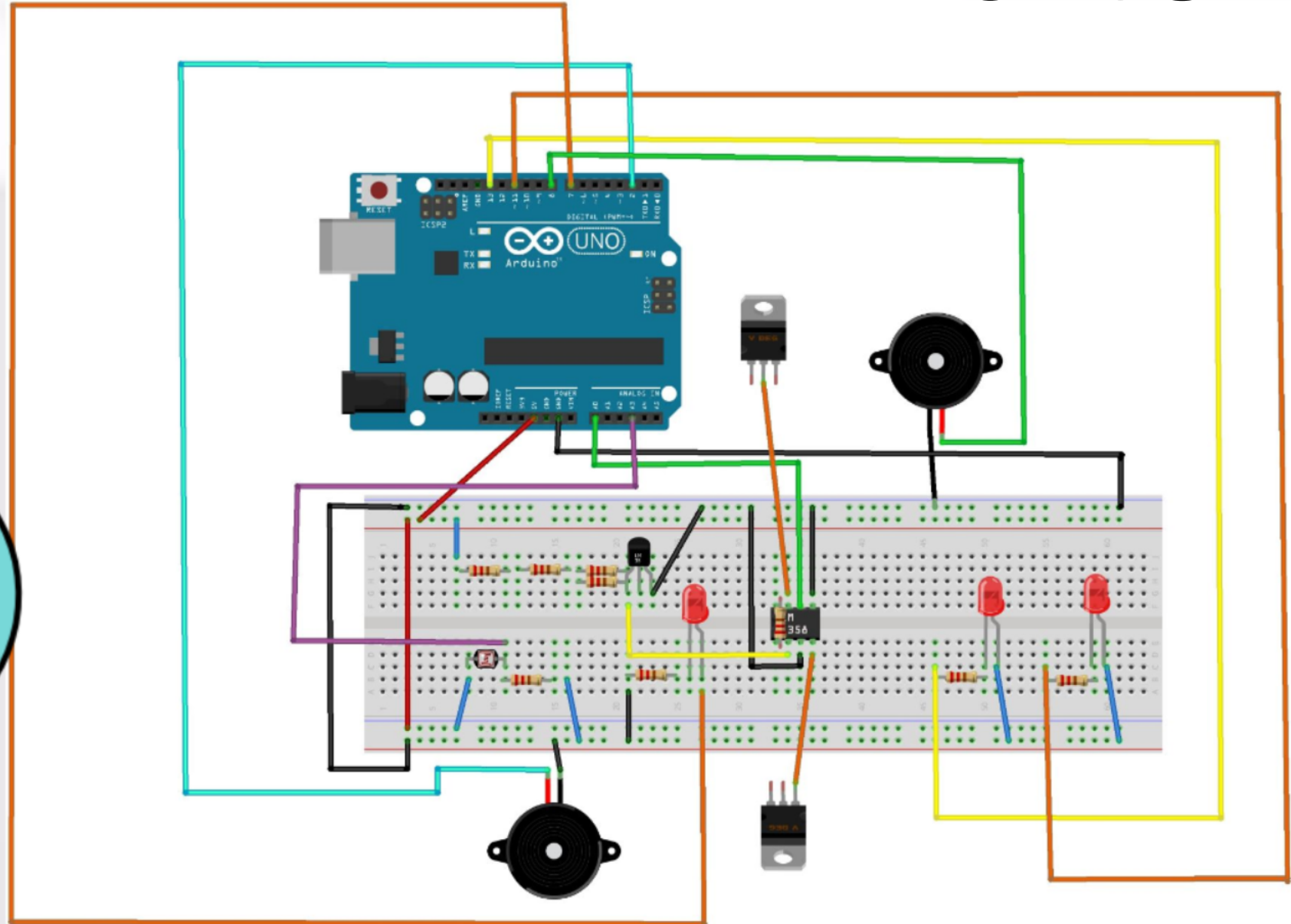


Flow Diagram CDIO

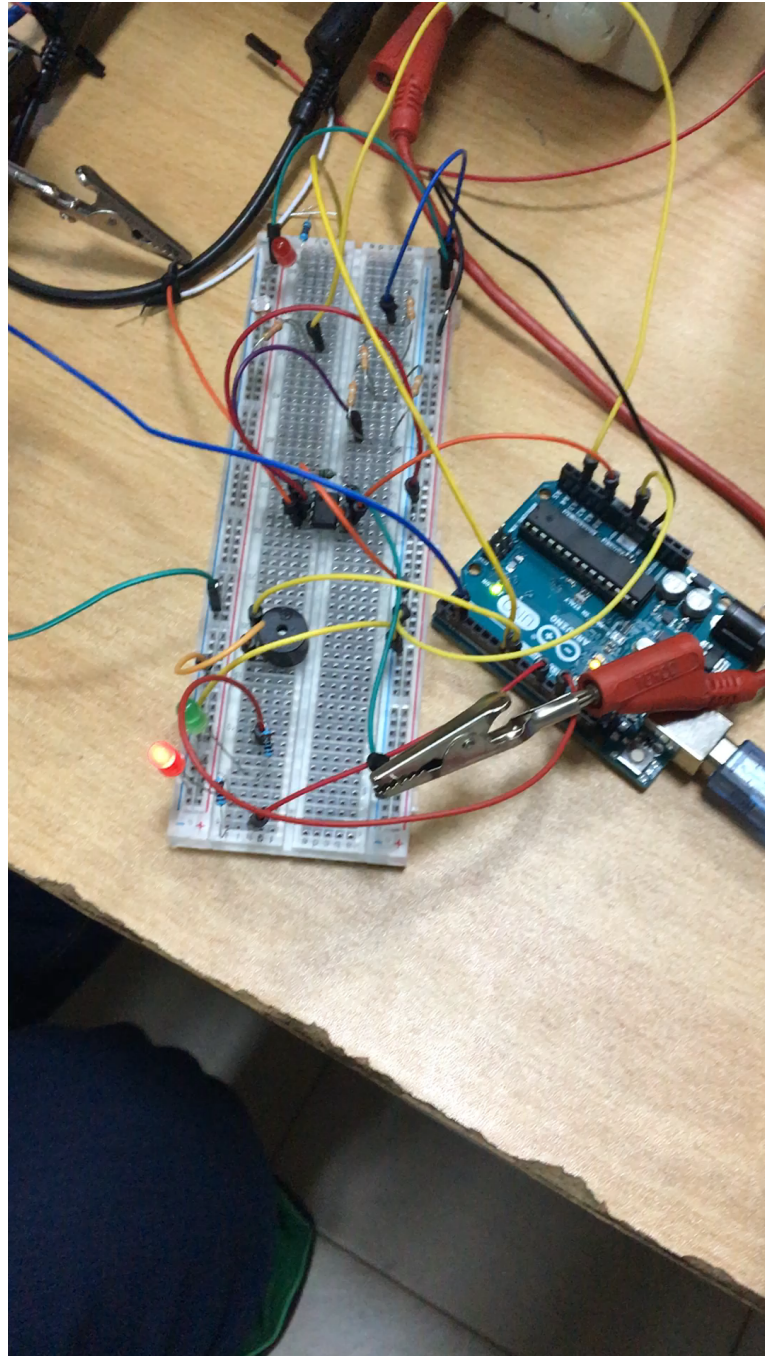


Closer look at the Implementation

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Demo of the **prototype**



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Paci-SIDS Operation

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Paci-SIDS will be rented to parents by local health centres for the first year of baby's life

Information collected by this system will be collected and aggregated to try to reach the root causes of SIDS and best possible approaches for prevention

The system can be reused by multiple families to reduce costs (after replacing the pacifier piece)

THANK YOU!

