Smart Baby Room

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The increasing workload and the challenge of balancing childcare have become a pressing issue for parents. To address this, a smart baby room has been developed to provide ideal conditions for babies, considering factors such as weather, environment, comfort, safety, and security.

According to the huge revolution of IOT people are used to living their day-to-day lives easily using this technology. Nowadays with the busy lifestyle of parents, they always try to take care of their newborn babies in an easy way. We are going to apply this technology for the children below 5 months.

FEATURES


Lighting System
Temperature/
Humidity
System
Safety
System
Auto
Window
Notification System
Audio
Monitoring
Auto Door
Security
System

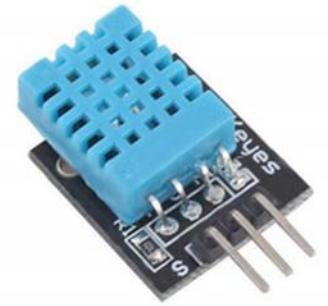
CIRCUIT COMPONENTS

Analog Sensors

Ultrasonic Sensor

Gas Sensor

LDR Sensor



Humidity/Temperature Sensor

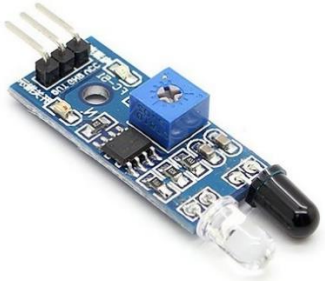
CIRCUIT COMPONENTS

Digital Sensors

LDR Sensor

Rain Sensor

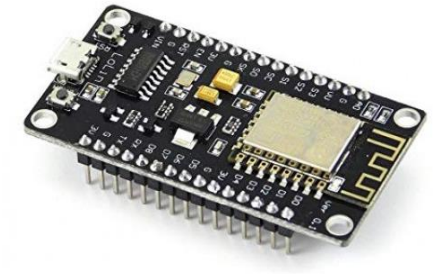
Mic Sensor



IR Sensor

CIRCUIT COMPONENTS

Arduino Board



Node MCU

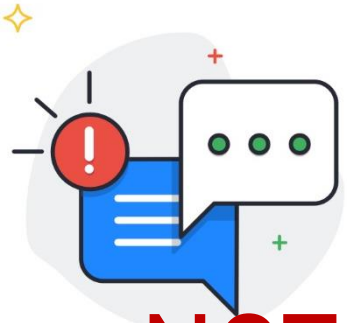
Servo Motor

Jumper weirs

LED Bulbs

AUDIO MONITORING

- Cry Detection Technology
- Automated Cradle Movement
- Self-Soothing Mechanism



NOTIFICATION SYSTEM

- Child Comfort and Awareness
- Automatic Wetness Notification
- Enhanced Child Care

AUTO WINDOW

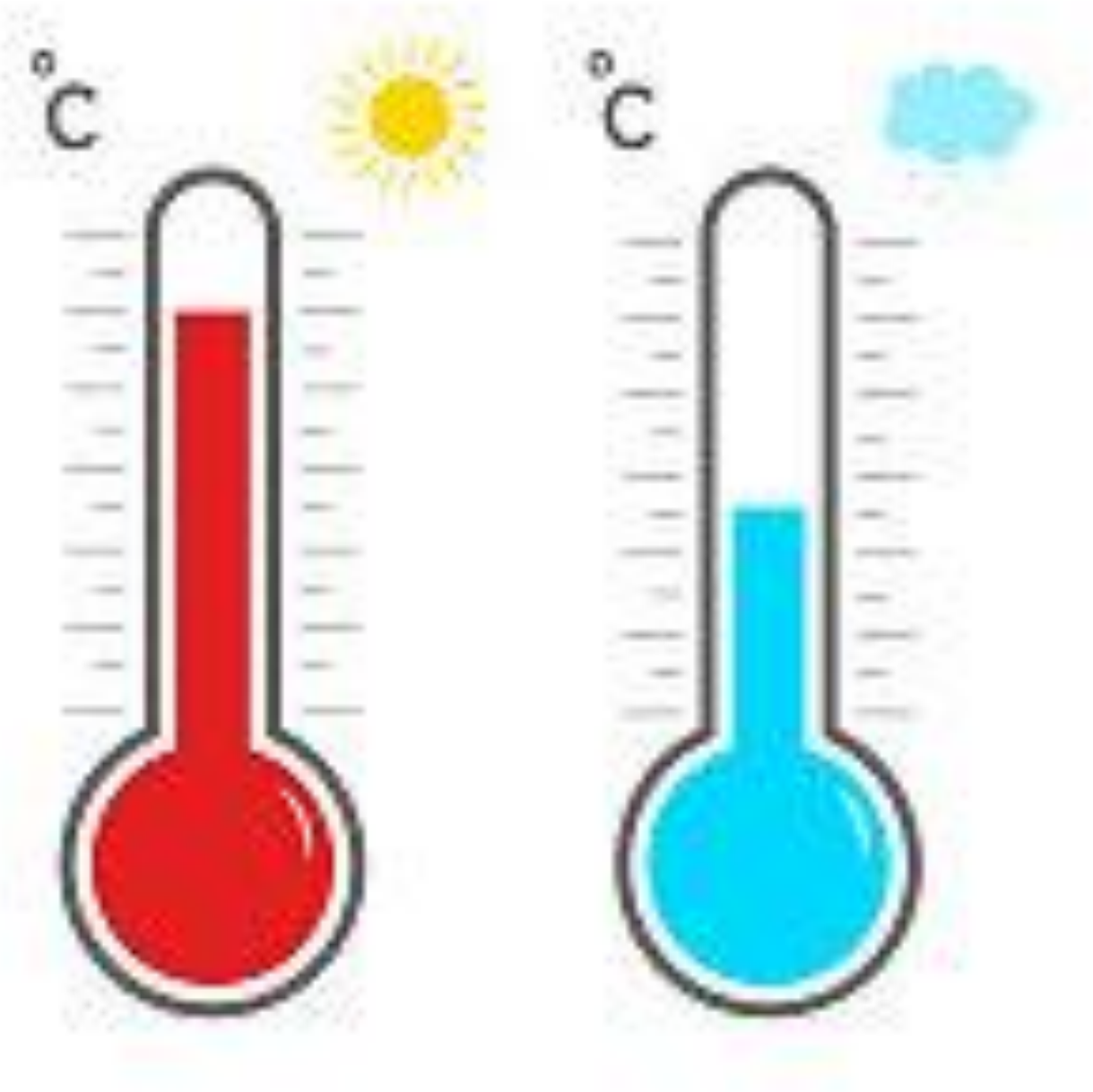
- Weather Sensing Technology
- Automated Window Control
- Convenience for Busy Parents

AUTO DOOR

- Automatic Door Opening
- Hands-Free Solution
- Safety and Efficiency

SECURITY

- Real-Time Monitoring
- Door and Window Activity Alerts
- Improved Safety and Supervision



TEMPERATURE SYSTEM

- Temperature Monitoring
- Automatic Air Conditioning
- Optimal Environment Control

HUMIDITY SYSTEM

- Humidity Monitoring
- Automatic Humidifier Activation
- Improved Comfort and Health

LIGHTING SYSTEM

- Automated Lighting
- Light Detection Technology
- Convenience for Parents

SAFETY SYSTEM

- Fire Hazard Detection
- Gas Detection and Alert
- Enhanced Safety

BENEFITS

- Child Safety
- Convenience for Parent
- Time-Saving
- Health and Safety
- Optimal Child Development
  - Child-Friendly Environment.
  - Natural Hazard Protection.
  - Parental Satisfaction.
  - Business Opportunity.

LIMITATIONS

- 1. The smart room setup was challenging.
- 2. AC activation based on room temperature impractical.
- 3.Can't attach rain sensors to a child's body or clothes.
- 4. Manual humidity control is unavailable.
- 5. Unable to afford a humidifier in practice.

RECOMMENDATIONS

- 1. Strong networking and automation knowledge are required for device integration.
- 2. Utilized LED bulbs due to resource constraints.
- 3. Rain sensor demonstrated atop the cradle.
- 4. Manual switch used for humidifier control.
- 5. LED bulb substituted for a humidifier to showcase function.

CONCLUSION

- This project aims to address the challenges faced by busy parents in caring for their young children. It offers an adaptable solution using existing technology and resources. The goal is to make parenting more manageable and efficient, inspiring further development to cater to individual family needs and enhance the overall parenting experience.

Q & A SESSION


THANK
YOU