Team #4

Air Quality Monitor

Team #4 Members

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Team #4

Air Quality Monitor

Description

- **Purpose of Product:**
  - To monitor air quality in a home environment

- **Features:**
  - Monitors temperature, smoke, dust, carbon monoxide, and methane gas
  - LCD display for local monitoring
  - Local alarm for emergency situation
  - Bluetooth Connection for smartphone monitoring

- **Intended Market:**
  - North America
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Air Quality Monitor

Key Requirements

- **Cost:**
  - Sales Price: $150, Component Cost: $60, Assembly cost & Test Cost: $40

- **Environment:**
  - Indoors
  - Operating Temp Range 0° to 40°C
  - Operating Humidity Range: 0% to 90%

- **Power Input(s):**
  - Residential AC Power: 102 VAC to 132 VAC @ Max 200mA
  - Humidity: 15-85 %RH
  - Temperature: -20° - 50°C
  - Methane: 500 - 8000 ppm
  - Carbon Monoxide: 25 - 400 ppm
  - Dust: Up to 0.5 mg/m³
  - At least 65% efficient
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Block Diagram