EE-595
Extra Yield, Extra Safety
Team 9


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Extra Eyes, Extra Safety

- **Purpose of Product** – Detect illegal intrusion for homes and inform the home owner through mobile device through text messaging
- **Feature 1**: System can be controlled with mobile app
- **Feature 2**: Local Alarm and cellular text alert
- **Feature 3**: Battery Backup to deter tampering
- **Market**: USA
Key Requirements

• Cost
  • Sales Price: $180
  • Component Cost: $95
  • Assembly & Test Costs: $25

• Environment
  • Indoor
  • Operating Temp Range: 0°C to 40°C
  • Operating Humidity Range: 0 to 100

• Power Input(s)
  • Residential AC Power: 102V – 132VAC @ 2 Amps Max
  • Battery Power: 1 of lead-acid type 12V @ minimum 10 hours

• Major Functions
  – Functions: On, Off
  – Laser sensor: resolution: 0.3mm, accuracy: +/-2.5mm
  – PIR: range: horizontal angle: 120° vertical angle 60°, detecting distance: 4-7m, transmitting distance: 10-15m, update rate: 1s
  – SPL alarm: 120dB
  – Power efficiency: 88% min, load regulation: <1%, line regulation: <1%