

RBlinds Team 1



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Project Description: RBlinds

- Project Description
 - Automated Blinds, to make natural lighting easy
- Differentiating Factors
 - Variety of operating modes
 - Automatic Mode, based on environmental conditions
 - Time Mode, to function as an alarm clock
 - Remote Control Mode, to remotely manually operate the blinds
 - Temperature Indicator
 - Low Cost

Key Requirements

- Cost
 - Sales Price: \$150, Component Cost: \$40, Assembly & Test Costs: \$40
- Environment
 - Indoor
 - Operating Temp Range: 0 to 40C
 - Operating Humidity Range: 0 to 80%RH
- Power Input(s)
 - Residential AC Power: 102 to 132 VAC @6 Amps Max
- Major Functions
 - Environmental Sensors
 - Brightness, wind speed, temperature
 - Remote control

Advanced Block Diagram

- | | |
|---------------------|------------|
| A. Power Supply: | E Arnhold |
| B. Microcontroller: | M. Davis |
| C. Blind Control: | K. Remich |
| D. Sensor Circuits: | M. Nordman |
| E. Remote Control: | R. Olson |
| F. LED Driver: | M. Almuzel |

