

The Epic Cube

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List of functions:

- 64 x Temperature Sensors
- Garage Door Control
- Air Conditioning and Heating Control
- 16 x Vent Damper Motor Drivers
- Wireless Communication
- 8 x Microphone Inputs for Voice Recognition
- 8 x Interrupt Buttons for Specific Microphone Use
- Baby Monitor listening
- 8 x Output Specific Speakers
- 5 x 12VDC PWM Fan Controllers
- 6 x Station Sprinkler Controller

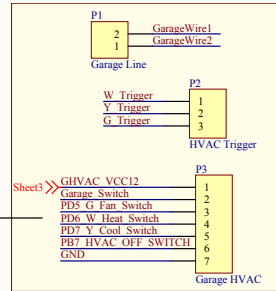
Engineer: Levi Balling	Title The Epic Cube			U of U Computer Engineering	
Drawn By: Levi Balling				50 S. Central Campus Dr.	
Checked By: *	Size: B	Number: 1	Revision: 1	Project: Smart Home	Rm. 3280 MEB
Date: 8/18/2012				Salt Lake City, UT	
Time: 10:41:33 AM	File: TheEpicCube.SchDoc				
Sheet 1 of 13	Website: www.eng.utah.edu/~lbaling/SmartHome				



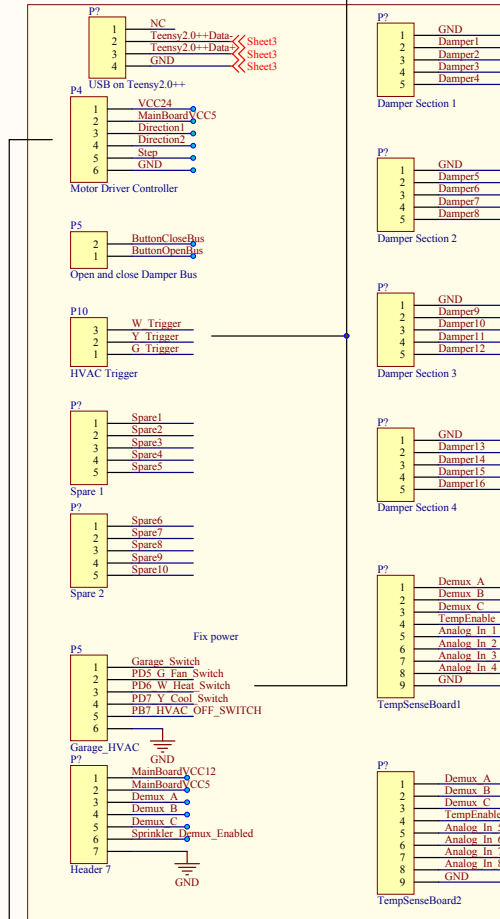
Epic Cube

This is a block diagram of how everything is going to be connected together.
This is not a board to be built, just descriptive

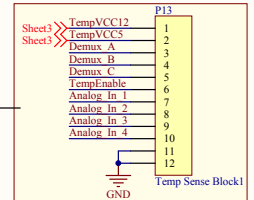
HeatingAC_Garage Board



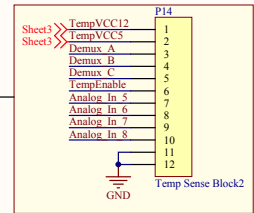
Main Controller



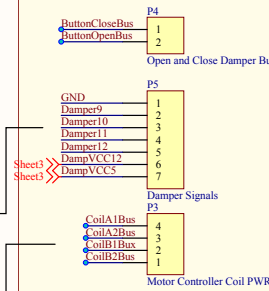
Temperature Sensor Block 1



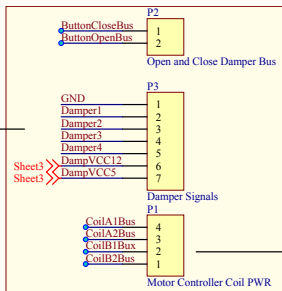
Temperature Sensor Block 2



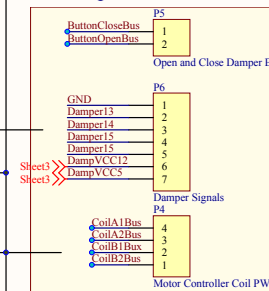
Damper Section 3



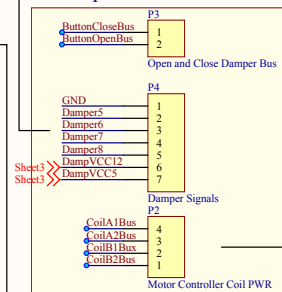
Damper Section 1



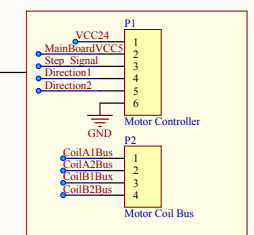
Damper Section 4



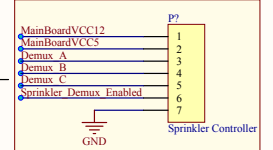
Damper Section 2



Motor Controller



Sprinkler Controller

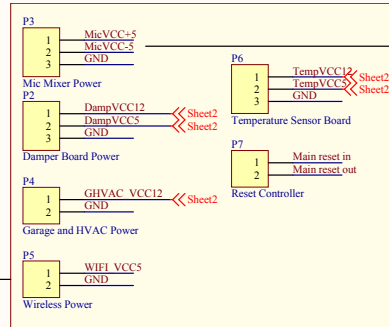


Engineer: Levi Balling	Title: Epic Cube Diagram	U of U Computer Engineering	Smart Home
Drawn By: Levi Balling	Checked By: *	50 S Central Campus Dr.	
Date: 8/18/2012	Size: B Number: 1 Revision: 1 Project: Smart Home	Rm. 3280 MEB	
Time: 10:42:00 AM	File: EpicCubeDiagram.SchDoc	SLC, UT 84112	
Sheet 2 of 13	Website: www.eng.utah.edu/~lballing/SmartHome		

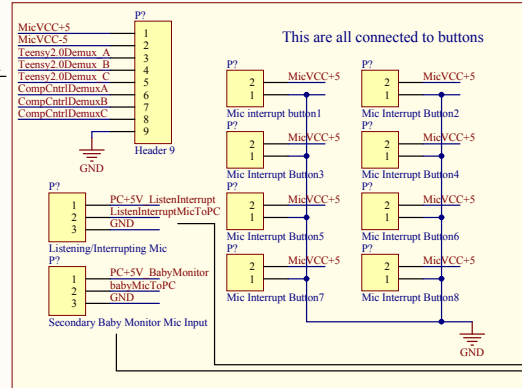
Epic Cube Power Distrobution

Power Supply Board

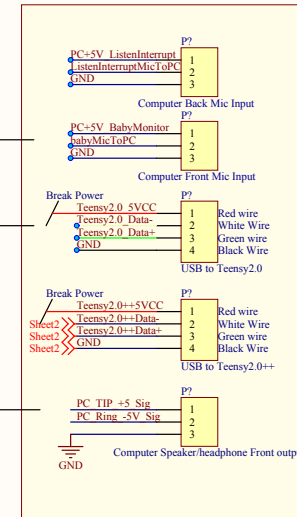
Most of the GND connections will remain unconnected



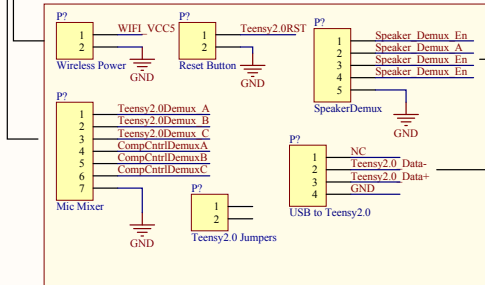
Microphone Mixer



Computer I/O



Wireless Communication



Speaker Mixer(Multiplexer)

