*Projects and Stuff*

Chameleon

Project Log

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# 2012/05/06

I began setting up the bare-bones of the project, starting with creating a new Git repository. I also started simple documentation about what the project goals are.

This project will be based upon the work that I’ve done on other capacitive-sensing projects. The main benefit of capacitive sensors over other methods, like IR LEDs and Diodes/transistors, is that the sensor itself has zero additional cost. While other sensor types require an actual sensor and maybe even an emitter of some sort, which costs money, capacitive sensors are just traces on a PCB. The argument could be made that the resistors and capacitors used with the capacitive sensors also cost money, but in production quantities, it’s an order of magnitude cheaper. All of the external components for a capacitive sensor typically cost less than one cent total in production quantities.

I also began developing the schematics today. Because much of this project is based upon my previous work on capacitive sensors, much of the hard work and research is already done. So placing the major components was simple.

I’m considering which LED driver to use. Since there are 5 RGB LEDs (15 LEDs total), I’m thinking a 16-bit LED driver would be perfect. It will have to be a chip that can adjust the current or PWM duty cycle of each LED separately. I can also add a status LED to the bottom of the board with the remaining output.