

Reverse Engineering Merit Badge Assessment

Instructions: complete the following and submit to your instructor.

- 1.) Identify and describe the purpose of material based reverse engineering. Contrast that with software based reverse engineering.
- 2.) Identify and describe how reverse engineering fits in the open hardware/maker movement.
- 3.) Describe the principles and techniques behind reverse engineering.
- 4.) Take one of the reverse engineering items from your instructor. Identify and describe the function of the item that you received.
- 5.) Disassemble the item, keeping in mind that the goal is to be able to describe how the item accomplishes the designed functions.
- 6.) Create a full schematic for the electronics behind the item that you received. Identify any “black boxes” and label them with their believed purpose. Be sure to reference any data sheets on components that you find. For the purpose of creating the schematic, I use Fritzing (<http://fritzing.org/download/>) but you should feel free to use any schematic software that you are comfortable with.