1. Background ( At least 2 pages, double spaced)
   1. What is tDCS?
      1. Biological principle
         1. How does direct current affect neuron function?
         2. Is it well understood?
            1. How is it viewed in the scientific community?
         3. What is it used to treat?
            1. How many people suffer from X condition?

Percentage of population

Number of people in demanding occupations ie. surgery

Insurance coverage

* + 1. Principles of device operation and function
       1. What are the general components
          1. Headgear
          2. Electrical circuit
       2. What are the devices currently used for?
          1. Clinical treatment
          2. Research purposes
          3. At home usage
  1. What are possible designs of tDCS
     1. Circuit design
        1. Constant current power supply design
        2. Simple battery circuit (no current control)
        3. Constant current supply with additional function generation
  2. What does bikson want us to do.
     1. Why does it need to be disposable?
        1. What does it mean to be disposable
     2. What kind of product does he want?
        1. Is this a single product or multiple products
     3. Why is simplicity to use important

1. Prior Art

---Design chart

* 1. Different types of devices out in the market
     1. Properties of the devices
        1. General purpose of the device
        2. Pros and cons
     2. What are these devices lacking with respect to the scope of our device?
  2. Headgear approaches
     1. “Full” swim cap style devices
     2. “Free” independently placed electrodes
        1. No adjustment straps
     3. Headgear that uses adjustable straps to place electrodes
  3. Electrode approaches
     1. Adhesive electrodes
        1. Easy to place good for disposability
        2. Bad for hairy places
     2. Sponge electrodes
        1. Hard to place
        2. Can conduct current through hair
  4. Circuit designs
     1. Small devices (iontophoresis)
        1. Cheap and easy to use
     2. Larger better controlled devices
        1. Better current control
        2. Safer
        3. Too bulky
        4. Features must be stripped to bare minimum