Section 1.1 – Project Intro

* Origin of the need for the Project
  + Heart rate data monitoring
    - Medical monitoring system gives insight into an individuals state of health
      * Heart rate provides feedback of activity intensity
      * Helps set goal
    - Could provided source of data for medical research studies
      * Provides heart rate data through a day for research
      * Many conditions & diseases correlate to heart rate.
      * More heart rate data can provide more research into how heart rates correlate with life conditions.
      * Possible to give insight into how daily life activity effects health condition by looking at fluctuating heart rate.
    - Data acquisition for doctors and medical professionals
      * Collective Heart rate data could give doctors and medical professionals a more in-depth diagnostic for patient.
      * Fluctuating heart rate through the day could also give data on how a patient reacts to treatment.
      * Collective heart rate data can correspond with patient demographic and life style.
        + Which could lead to more personalized medicines.
    - Health data provides feed back for athletes
    - Sleep monitoring
      * Heart rate data correlates to sleep cycle and sleep and state. ([Source](http://www.nature.com/npp/journal/v28/n1s/full/1300146a.html))
  + Wearable technology growth
    - Integrating daily technology into a practical wearable form factor.
    - Wearable technology is where the tech industry is heading.
  + Practical and unobtrusive method of medical data collection.
    - Immediate feedback of data
* Target customer / user
  + Medical professionals
  + Elderly
  + Athletes
  + Researchers
  + General public
* Why is it needed or desirable
* What is novel & what applications will it serve
* Customer desired features
* Product trade off
* Who will use/ buy product
* Will it be a part of a larger system?

Section 1.2 – Technology Table

* Similar product, design, and features

Section 1.3 Technology Analyses

Compare products

* Strengths and weaknesses of each products/design (highlight relevant to project)
* What is missing from the projects?
* What is common and why the commonality exists
* Crowded project space
* New or mature project area
* Cost of projects

Possible Design Requirements