Requirements Document

Project Name Here

Revision: 1.0
Date:

<table>
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<tr>
<th>Prepared By:</th>
<th>Initials:</th>
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<tr>
<td>Iteration: (circle one)</td>
<td>Draft</td>
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<td>Final Signoff:</td>
<td>Initials:</td>
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1 INTRODUCTION
This document outlines the full suite of requirements for your product. It forms the basis for all future development of your product and is essential for efficient use of company resources.

1.1 DOCUMENT ITERATION
This document will go through 2 iterations:

1.1.1 Draft
This is the initial version of the document. These specifications are pending approval of managers, engineering, and any other relevant persons.

1.1.2 Final
Once all requirements are revised and edited from the Draft, a Final version is created and submitted for final approval. The final signoff is performed by the PM unless otherwise specified.

If there are future revisions required, a draft and another final will need to be submitted for approval. Be sure to increment the revision number accordingly.

1.2 PROJECT DESCRIPTION
Description: State an overview of the project. This is limited in technical nature and must be general.

1.2.1 Perspective
Description: Why are you developing this product?

1.2.2 Functionality
2 REQUIREMENTS SPECIFICATION

Description: List requirements for design under the appropriate section. A unique, yet general heading should be used describing each requirement. There should exist no redundant requirements. If functional and non-functional requirements have the same heading, use the same final digit whenever possible. This means requirements specific only to a particular requirement type should be listed last. An example for a heart-rate monitoring device is used for illustrative purposes.

2.1 FUNCTIONAL REQUIREMENTS

Description: Functional requirements define the ‘what it should do’ parameters of a design. These outline the behavior and functionality of a design.

2.1.1 Heart Rate
   2.1.1.1 Heart rate should be detected from the adult human body

2.1.2 Calories Burnt
   2.1.2.1 The monitor should calculate the amount of calories burnt by the user

2.1.3 Power
   2.1.3.1 The monitor should be battery powered
   2.1.3.2 The monitor should be rechargeable

2.1.4 Safety
   2.1.4.1 The monitor should be safe for use on the human body
   2.1.4.2 The monitor should disable itself in charge mode

2.1.5 Certification
   2.1.5.1 The monitor should pass appropriate FDA medical device approvals

2.2 NON-FUNCTIONAL REQUIREMENTS

Description: Non-functional requirements define the quality parameters of a design and ‘how the product shall be.’

2.2.1 Heart Rate
   2.2.1.1 Heart rate value should be accurate to 1 BPM

2.2.2 Calories Burnt
2.2.2.1 Calories burnt value should be accurate to 1 kCal

2.2.3 Power
2.2.3.1 The monitor should run for 10 hours continuous under one full charge
2.2.3.2 The monitor should be capable of being recharged at least 100 cycles
2.2.3.3 The charge voltage should be externally supplied at 5.0 V $\pm$ 0.1 V
2.2.3.4 The unit should draw no more than 500 mA from the charge source at any time

2.2.4 Safety
2.2.4.1 The monitor should allow no more than 50 nA to pass through the body under any mode of operation, including potential failure

2.3 INTERFACE REQUIREMENTS

Description: How will the design ‘interact’ with its intended user(s), environment, etc...

2.3.1 Heart Rate
2.3.1.1 Heart rate should be visually displayed to the user

2.3.2 Calories Burnt
2.3.2.1 Calories burnt should be visually displayed to the user

2.3.3 Power
2.3.3.1 The recharging port should use a standard USB Type B mini cable

2.3.4 Ergonomics
2.3.4.1 The device should be comfortable to wear for an extended period of time
2.3.4.2 The device must be easy to fasten and unfasten from the body
2.3.4.3 The display should be easy to read during the day or night

2.3.5 Aesthetics
2.3.5.1 The device should be visually appealing to the target user

3 APPENDIX

Description: Supporting material not convenient to place in the main document but relevant to the interpretation and understanding of the document should go here.

4 REFERENCES

Description: Any references used for this document go here.