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**HO CHI MINH CITY UNIVERSITY**

**OF TECHNOLOGY**

*Faculty of Electronics and Electrical Engineering*

*Lab Report*

**EMBEDDED SYSTEM**

***Group: 15Class: TT01***

***Digital Filters with MATLAB***

*Instructor:*

Bui Quoc Bao

**HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY**

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| --- | --- |
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**Product Requirements Document**

**BATTERY CHARGER**

**OVERVIEW**

Name: Battery Charger

It charge battery, powered through IC TC4056, capable of charging Li-Ion 3.7V and Li-Po 4.2V battery

**PRODUCT REQUIREMENTS**

P0: Must have requirements  
 P1: Optional requirements, would be nice to have those at lauch

1. Industrial Design

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Feature/Characteristics | Product Requirements | Priorities | Notes |
| 1.1 | Dimension | x 3cm  (LxWxH) | P0 |  |
| 1.2 | Material | Plastic | P0 |  |
| 1.3 | Connector | Micro USB port | P0 |  |
| 1.4 | LED Display | Status for charging/charged | P1 |  |

1. Power

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Feature/Characteristics | Product Requirements | Priorities | Notes |
| 2.1 | Power | Cable Powered, shall use  Micro USB port | P0 |  |
| 2.2 | Power Theshold | Taking maximum of 8V and 0.5A input current | P0 |  |

1. Durability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Feature/Characteristics | Product Requirements | Priorities | Notes |
| 3.1 | Life Time | At least 1 year | P0 |  |
| 3.2 | Drop Test | Survived when dropped 1m | P1 |  |
| 3.3 | Adhering | Shall not be dangerous to use | P0 |  |

1. Compatibility

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Feature/Characteristics | Product Requirements | Priorities | Notes |
| 4.1 | Li-Ion 3.7V and Li-Po 4.2V | Must be compatible | P0 |  |
| 4.2 | D type Battery | Should be compatible | P1 |  |
| 4.3 | AAA type Battery | Should be compatible | P1 |  |