Canary Theoretical Test Plan

Testing the GFB (Go For Broke) Action Camera

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Candidate: Christopher Wamble

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|  |  |  |  |
| --- | --- | --- | --- |
| Name | Role | Approver / Reviewer | Approval / Review Date |
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**Reference Documents**

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| 1.0 |  | QA Homework Assignment Theoretical Part |
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# INTRODUCTION

## Purpose

Test the quality control of the GFB Action Camera based on the requirements of performance stated by the engineers and product managers on how the camera should work.

## Project Overview

The GFB Action Camera is intended to be used for outdoor enthusiasts. It performs two simple functions: snapshots, and video. The camera was designed to be durable and take a lot of damage. Also it is designed for aquatic use.

## Audience

* Canary management

# TEST & EXECUTION STRATEGY

## Test Objectives

The test cases are divided into 3 test suites. Each test suite is a category of testing. The test suites are as follows:

* **Test Suite 1**: camera basic functionality
* **Test Suite 2**: camera battery performance
* **Test Suite 3**: camera operation under aquatic stress
* **Test Suite 4**: camera operation under physical stress

## Test Assumptions

* Unlimited supply of GFB Action Cameras to use for testing.
* Each GFB Action Cameras being tested is signed off by product team and engineers to be ready for field testing.
* Only 1 QA person has been assigned to testing the quality of the GFB Action Camera and QA person is a certified diver.
* If battery performance exceeds the test cases of Test Suite 2, it is considered pass.
* UAT environment contains a body of water at least 100m deep and a platform at 15m and 20m high.
* Camera has certain additional functions that would be expected of any digital camera created in 2017.

## Testing Metrics

Each test case will be labeled with the following complexity matrix on difficulty of performing the test.

|  |  |
| --- | --- |
| **Complexity** | **Impact** |
| Simple | * This bug is critical enough to crash the system, cause file corruption, or cause potential data loss * It causes an abnormal return to the operating system (crash or a system failure message appears). * It causes the application to hang and requires re-booting the system. |
| Medium | * It causes a lack of vital program functionality with workaround. |
| Complex | * This Bug will degrade the quality of the System. However there is an intelligent workaround for achieving the desired functionality - for example through another screen. * This bug prevents other areas of the product from being tested. However other areas can be independently tested. |

Each test case is categorized into a specific test suite domain by a naming label that focuses on testing the quality of the GFB Action Camera from different aspects of testing.

|  |  |  |
| --- | --- | --- |
| **Label Convention** | **Test Suite Domain** |  |
| TC-1.x | Test Suite 1 | Testing of simple functionality. |
| TC-2.x | Test Suite 2 | Testing of performance through stress testing of the battery power capability. |
| TC-3.x | Test Suite 3 | Testing of the physical device from aquatic stress. |
| TC-4.x | Test Suite 4 | Testing of the physical device from physical stress. |

Each test case will result simply as pass or fail, each has a specific impact on the continuation of the testing.

|  |  |
| --- | --- |
| **Severity** | **Impact** |
| Pass | * Can move on to the next chronological order of test cases per suite |
| Fail | * Cannot move forward with chronological order of test cases until this test case passes. * Send back to product managers and engineers on defect. * Await for them to fix and then retest again. |

The QA tester will summarize his/her testing results in the following grid and provide any notes for the product managers and engineers to review for special circumstances (e.g. reason a testcase failed).

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Pass/Fail** | **Time estimate** | **Risk Level/Notes** |
| TC-1.1: Camera turns on and off |  | 5 minutes |  |
| TC-1.2: Switch mode to still image operational |  | 2 minutes |  |
| TC-1.3: Switch Mode to video operational |  | 2 minutes |  |
| TC-1.4: Shutter function operational |  | 5 minutes |  |
| TC-1.5: Delete Photos Taken |  | 5 minutes |  |
| TC-1.6: Video function operational |  | 5 minutes |  |
| TC-1.7: Delete Videos Taken |  | 5 minutes |  |
| TC-2.1: Battery life standby reaches or exceeds 10 hours |  | 12 hours |  |
| TC-2.2: Filming time reaches or exceeds 4 hours |  | 5 hours |  |
| TC-3.1: Camera operational on standby for at least 10 hours in less than 100m of water. |  | 13 hours |  |
| TC-3.2: Camera operational on standby for at least 10 hours at 100m of water. |  | 13 hours |  |
| TC-3.3: Camera non-operational on standby after at least 10 hours in over 100m of water. |  | 13 hours |  |
| TC-3.4: Camera films at least 4 hours under 100m of water. |  | 5 hours |  |
| TC-3.5: Camera films at least 4 hours at 100m of water. |  | 5 hours |  |
| TC-3.6: Camera films at least 4 hours in more than 100m of water. |  | 5 hours |  |
| TC-4.1: Camera operational on standby for at least 10 hours when dropped several times from a 10m height. |  | 12 hours |  |
| TC-4.2: Camera operational on standby for at least 10 hours when dropped several times from a 15m height. |  | 12 hours |  |
| TC-4.3: Camera non-operational on standby at least 10 hours when dropped several times from a 20m height. |  | 12 hours |  |
| TC-4.4: Camera films at least 4 hours after being dropped several times from a 10m height. |  | 5 hours |  |
| TC-4.5: Camera films at least 4 hours after being dropped several times from a 15m height. |  | 5 hours |  |
| TC-4.6: Camera films at least 4 hours after being dropped several times from a 20m height. |  | 5 hours |  |



NOTE: you can copy and paste the following icons into the Pass/Fail column to indicate status of each test case, or simply type ‘P’ or ‘Pass’ for pass and ‘F’ or ‘Fail’ for fail.

## Risk Metric

The following describes the risk levels that would be recorded in the test metric for the test cases. QA tester may also add notes to detail the reason for his/her judgement of the severity so that the stakeholders can make a decision on the release or delay in the camera model going to market.

|  |  |
| --- | --- |
| **Severity** | **Impact** |
| 1 (Critical) | * Cannot release camera into the market until issue(s) are addressed. |
| 2 (Moderate) | * Marketing of product may need to change to account for shortcomings to be addressed in next model release. |
| 3 (Plausible) | * Edge cases that should be addressed but for a much later product model. Does not hinder marketing claims and workable functionality of the product. |
| 4 (Whiteboard) | * A consideration found in testing that will be discussed as innovations to better the product in future releases. |

QA tester will work with the stakeholders to resolve the issues found. Once resolved, QA tester will do another testing cycle.

## Test Suite Documentation

Following are the test procedures of the test cases for each test suite for full functional testing of the camera product. This documentation will be followed for each test cycle. Double-clicking on the embedded document icon will reveal the test case details.

### Test Suite 1: Camera Basic Functionality

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### Test Suite 2: Camera Battery Performance

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### Test Suite 3: Camera Operation under Aquatic Stress





### Test Suite 4: Camera Operation under Physical Stress

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