**Test case ID: TC101**

Testcase title: Power button

Test description:

To test the ON/OFF features using the Power button.

Pre-condition: The camera must be sufficiently charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Should be able to press the button |  |  |
| 2 | Verify if the camera turns on | Camera should be turned on and display should be visible. |  |  |
| 3 | Press the power button again | Should be able to press the button |  |  |
| 4 | Verify if the camera is turned off | Camera should be turned off. |  |  |

**Test case ID: TC102**

Testcase title: Water resistance test case with valid range

Test description:

This is to test the water resistance feature of the camera with valid range (0 – 100m)

Pre-condition: The camera must be sufficiently charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Immerse the camera into water with 10m depth for 15 minutes | Camera should be in the water at 10m depth |  |  |
| 2 | Take out the camera and press the power button once | Camera should be turned on and display should be visible. There should not be any signs of water penetration |  |  |
| 3 | Immerse the camera into water with 50m depth for 15 minutes | Camera should be in the water at 50m depth |  |  |
| 4 | Take out the camera and press the power button once | Camera should be turned on and display should be visible. There should not be any signs of water penetration |  |  |
| 5 | Immerse the camera into water with 100m depth for 15 minutes | Camera should be in the water at 100m depth |  |  |
| 6 | Take out the camera and press the power button once | Camera should be turned on and display should be visible. There should not be any signs of water penetration |  |  |

**Test case ID: TC103**

Testcase title: Water resistance test case with invalid range

Test description:

This is to test the water resistance feature of the camera with invalid range (>100m)

Pre-condition: The camera must be sufficiently charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Immerse the camera into water with 101m depth for 15 minutes | Camera should be in the water at 101m depth |  |  |
| 2 | Take out the camera and press the power button once | Camera may not turn on or show water damages |  |  |
| 3 | Immerse the camera into water with 150m depth for 15 minutes | Camera should be in the water at 150m depth |  |  |
| 4 | Take out the camera and press the power button once | Camera may not turn on or show water damages |  |  |

**Test case ID: TC104**

Testcase title: Vertical fall with valid range

Test description:

This is to test the vertical fall tolerance feature of the camera with valid range (0 – 15m)

Pre-condition: The camera must be sufficiently charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Drop the camera from 5m height | Camera should not have any physical damages |  |  |
| 2 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 3 | Drop the camera from 10m height | Camera should not have any physical damages |  |  |
| 4 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 5 | Drop the camera from 15m height | Camera should not have any physical damages |  |  |
| 6 | Press the power button once | Camera should be turned on and display should be visible. |  |  |

**Test case ID: TC105**

Testcase title: Vertical fall with invalid range

Test description:

This is to test the vertical fall tolerance feature of the camera with invalid range (>15m)

Pre-condition: The camera must be sufficiently charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Drop the camera from 16m height | Camera may have physical damages |  |  |
| 2 | Press the power button once | Camera may not turn on and display might experience issues. |  |  |
| 3 | Drop the camera from 20m height | Camera should have physical damages |  |  |
| 4 | Press the power button once | Camera should not be turn on and display should not be visible. |  |  |

**Test case ID: TC106**

Testcase title: Battery life standby mode valid time intervals

Test description:

This is to test the battery life of the camera during the standby mode in the valid time range (0-10hrs)

Pre-condition: The camera must be **fully** charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Put the camera into standby mode | Camera is in standby mode |  |  |
| 3 | Check the battery status of the camera after 3 hours | Battery percentage should be slightly reduced and there should not be any unexpected shutdowns |  |  |
| 4 | Check the battery status of the camera after 6 hours | Battery percentage should be considerably reduced and there should not be any unexpected shutdowns |  |  |
| 5 | Check the battery status of the camera after 9 hours | Battery percentage should be reduced than the previous and there should not be any unexpected shutdowns |  |  |
| 6 | Check the battery status of the camera after 9 hours | Battery percentage should be very less and there should not be any unexpected shutdowns |  |  |

**Test case ID: TC107**

Testcase title: Battery life standby mode invalid time intervals

Test description:

This is to test the battery life of the camera during the standby mode in the invalid time range (>10hrs)

Pre-condition: The camera must be **fully** charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Put the camera into standby mode | Camera is in standby mode |  |  |
| 3 | Check the battery status of the camera after 11 hours | Camera might be shutdown |  |  |
| 4 | Check the battery status of the camera after 15 hours | Camera should be shutdown |  |  |

**Test case ID: TC108**

Testcase title: Battery life filming mode valid time intervals

Test description:

This is to test the battery life of the camera during filming in the valid time range (0-4hrs)

Pre-condition: The camera must be **fully** charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Start the recording continuously | Camera should record |  |  |
| 3 | Check the battery status of the camera after 1 hour | Battery percentage should be slightly reduced and no unexpected shutdowns. |  |  |
| 4 | Check the battery status of the camera after 2 hours | Battery percentage should be reduced to almost half and no unexpected shutdowns. |  |  |
| 5 | Check the battery status of the camera after 3 hours | Battery percentage should be reduced considerably low and no unexpected shutdowns. |  |  |
| 6 | Check the battery status of the camera after 4 hours | Battery percentage should be at the minimum level and no unexpected shutdowns. |  |  |

**Test case ID: TC109**

Testcase title: Battery life filming mode invalid time intervals

Test description:

This is to test the battery life of the camera during filming in the invalid time range (>4hrs)

Pre-condition: The camera must be **fully** charged.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Start the recording continuously | Camera should record |  |  |
| 3 | Check the battery status of the camera after 5 hours | Camera might be shutdown |  |  |
| 4 | Check the battery status of the camera after 8 hours | Camera should be shutdown |  |  |

**Test case ID: TC110**

Testcase title: Shutter button with picture mode

Test description:

This is to test the functionality of shutter button on still image mode

Pre-condition: The camera must be fully charged, and storage is not full.

For the step 5, camera **storage should be full**.

For step 6, **battery percentage should be very low**

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Press the mode switch button to still image mode | Camera should be in still image mode |  |  |
| 3 | Press the shutter button once | Camera should capture an image |  |  |
| 4 | Press the shutter button multiple times | Camera should take multiple images without any issues or freeze |  |  |
| 5 | Press the shutter button  (for this step, storage should be full) | Camera should display an alert/error message saying ‘storage is full’ |  |  |
| 6 | Press the shutter button  (for this step, battery should be very low) | Camera should display an alert/error message saying ‘Battery is low |  |  |

**Test case ID: TC111**

Testcase title: Shutter button with video mode

Test description:

This is to test the functionality of shutter button on video mode

Pre-condition: The camera must be fully charged, and storage is not full.

For the step 5, camera **storage should be full**.

For step 6, **battery percentage should be very low**

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Press the mode switch button to video mode | Camera should be in video mode |  |  |
| 3 | Press the shutter button once | Camera should start recording video and video recording red icon should be displayed in the display. |  |  |
| 4 | Press the shutter button again | Camera should stop recording the video |  |  |
| 5 | Press the shutter button  (for this step, storage should be full) | Camera should display an alert/error message saying ‘storage is full’ |  |  |
| 6 | Press the shutter button  (for this step, battery should be very low) | Camera should display an alert/error message saying ‘Battery is low |  |  |

**Test case ID: TC112**

Testcase title: Charging test

Test description:

This is to test the charging functionality of the camera

Pre-condition: The original charging device/cable is available.

Additional preconditions for the specific steps are mentioned in the respective steps.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Connect the camera to the charging device which is plugged into a power supply  *Precondition: Camera is already ON* | Camera should be connected to the charging device |  |  |
| 2 | Observe the charging indicator in the display and the charging indicator LED in the camera | The increasing level of charging is displayed in the display and LED is ON |  |  |
| 3 | Connect the camera to the charging device which is plugged into a power supply  *Precondition: Camera is OFF* | Camera should be connected to the charging device |  |  |
| 4 | Observe the charging indicator LED in the camera | Th charging LED is ON |  |  |
| 5 | Connect the camera to the charging device which is plugged into a power supply  *Precondition: Battery is already full, and camera is already ON* | Camera should be connected to the charging device |  |  |
| 6 | Observe the charging indicator in the display and the charging indicator LED in the camera | Camera should display an alert message saying, ‘Battery is Full’ and charging LED is ON |  |  |

**Test case ID: TC113**

Testcase title: Image quality

Test description:

This is to test the Image quality of the camera like sharpness and color.

Pre-condition: The camera must be sufficiently charged, and the toggle mode is in still image mode. There is sufficient light for taking images.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Press the mode switch button to still image mode | Camera should be in still image mode |  |  |
| 3 | Press the shutter button to capture an image with high details (for example a printed paper) | Camera should capture the image without any signs of blur |  |  |
| 4 | Zoom in to the picture and observe the details | Camera should allow zooming, and the details should be very clear. |  |  |
| 5 | Take an image of a color chart | Camera should capture the image without any signs of blur |  |  |
| 6 | Compare the colors in the image with the real-life colors | Colors should appear as it is in real life and there should not be any distortions. |  |  |

**Test case ID: TC114**

Testcase title: Video quality

Test description:

This is to test the video quality of the camera like resolution, frame rate and object detection

Pre-condition: The camera must be sufficiently charged, and the toggle mode is in video mode. There is sufficient light for taking videos.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Press the mode switch button to video mode | Camera should be in video mode |  |  |
| 3 | Record the video in desired resolutions (for example 1080p) | Camera should capture the video without any issues. |  |  |
| 4 | Play the video in a large screen | The video should be sharp and clear at all the desired resolutions |  |  |
| 5 | Record the video in various frame rates (30,60,120 FPS) | Camera should capture the video without any issues |  |  |
| 6 | Play back the videos in the camera | Videos should be smoother at higher rate even with the moving objects |  |  |
| 7 | Record the video of a moving object. | Camera should capture the video without any issues. |  |  |
| 8 | Play back the videos in the camera | The video should keep the focus on the moving object and the video should not have any shakiness. |  |  |

**Test case ID: TC115**

Testcase title: Heating test

Test description:

This is to test that the camera does not overheat during normal and extreme conditions and remains functional.

Pre-condition: The camera must be sufficiently charged, and storage is not full.

| **Steps #** | **Steps** | **Expected Results** | **Actual Results** | **P/F** |
| --- | --- | --- | --- | --- |
| 1 | Press the power button once | Camera should be turned on and display should be visible. |  |  |
| 2 | Set the camera to record video at its highest resolution and frame rate | Camera should be in video mode and at highest frame rate and resolution. |  |  |
| 3 | Record the video continuously till the end of the battery life (around 4 hours) | Camera should capture the video without any issues. |  |  |
| 4 | Monitor and record the temperature of the camera | The camera should not overheat or shutdown before the battery life ends. |  |  |
| 5 | Place the camera in a high temperature environment (for example 40-45°C)  *Precondition: Battery is already full,* | Camera should be placed as expected. |  |  |
| 6 | Play back the videos in the camera | Videos should be smoother at higher rate even with the moving objects |  |  |
| 7 | Record the video at its highest resolution and frame rate | Camera should capture the video without any issues. |  |  |
| 8 | Monitor the camera body gets too hot | Camera should function as expected without excessive heat warnings or unexpected shutdowns. |  |  |