**CompatibilityTesting SMA Version 2.0**

**Project name: Skybot Mobile Application Version 2.0**

**Test Object:** Mobile App Skybot Electric

**Network:**  Wi-fi, 5G mobile Kyivstar

**Tested by** O.Solodka

**Date:** 13-18.10.2024

**Test Environment:**

|  | **Samsung Galaxy A53** | **Teclast T50 EEA** |
| --- | --- | --- |
| **Operating System** | Android 14 | Android 12 |
| **Processor** | Samsung Exynos 1280, | Unisoc T618 |
| **RAM** | 8 GB | 8 GB |
| **Internal Storage** | 256 GB | 128 GB |
| **Battery** | 5000 mAh, supports 25W fast charging | 7500 mAh, supports fast charging |
| **Display** | 6.5" Super AMOLED - 1080 x 2400 | 11" Full HD 2000x1200 |
| **Touchscreen** | Multi-touch, capacitive | Multi-touch, capacitive |

1. **Download and launch application**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1.1** | **Verifying App Installation on Different Android Versions** | Ensure the app installs correctly on devices with various versions of the Android operating system | Devices with different Android versions available (e.g., Android 12, 14) | 1. Select a device with Android 12 version.  2. Follow by instruction [MAT\_ver2 - Google Документи](https://docs.google.com/document/d/1mYTKMs_j1lH0dGf2_av0hNdvhBni_HdAJHzyli3RJ_Q/edit?tab=t.0#heading=h.jtz6b0s59c9t)  3. Download and install the app on the device.  4. Repeat steps 1-3 for device with Android version 14 | 1. The app successfully installs without errors or crashes on device with Android version 12.  2. The app successfully installs without errors or crashes on device with Android version 14 | Pass | The app successfully installs on each devices with Android version 12 and 14 |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1.2** | **Verifying App Launch on Different Android Versions** | Ensure the app launches successfully on various versions of Android | The app is installed on devices with Android versions 12 and 14 | 1. Launch the app on a device running Android 12.  2. Check if the main screen opens without errors.  3. Verify basic navigation after the app launch.  4. Repeat steps 1,2,3 for device with Android version 14 | The app launches correctly on each Android version 12 and 14, with the main screen loading smoothly and without errors | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1.3** | **Uninstalling an App from the mobile devices running Android version 12 and 14** | Verify the user is able to successfully uninstall the application from their mobile device | The app is installed and launched on devices with Android versions 12 and 14;  The user has access to the device's settings or app drawer | **Method 1:** Uninstall via App Drawer 1. Open the application on device with OS Android 12.  2. Navigate to the App Drawer(list of all installed apps).  3. Locate the app to be uninstalled.  4. Press and hold the app icon.  5. From the options that appear, select Uninstall.  6. Confirm the action by tapping OK or Uninstall on the confirmation pop-up.  7. Repeat steps 1-6 for device with OS Android 14 **Method 2:** Uninstall via Device Settings 1. Open the application on device with OS Android 12. 2. Open the Settings app on the device.  3. Navigate to Apps or Applications.  4. Scroll through the list and select the app to uninstall.  5. Tap Uninstall.  6. Confirm the action by tapping OK or Uninstall on the confirmation pop-up.  7. Repeat steps 1-6 for device with OS Android 14 | The app is successfully uninstalled from the device.  The app is no longer available in the app drawer or in the device’s list of installed applications.  The user may receive a confirmation message that the app was uninstalled. | Pass |  |

1. **Main Functionality**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.1** | **Verifying App Functionality on Different Android Versions** | Ensure that all core features of the app work correctly across different Android versions | The app is installed and launched on devices with Android versions 12 and 14 | 1. Perform login or registration on a device running Android version 12 and 14.  2. Test the core functionalities of the app (e.g., add to cart, product view)  3. Test additional features (e.g., integration with the camera, access to contacts, or location services). | All features function correctly on each Android version, with no crashes or data loss | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.2** | **Registration of a new user** | Verifying the possibility of registering a new user on device running Android version 12 and 14 | Accept to devices running Android version 12 and 14  The user does not have an existing account | 1. Open the app on device with OS Android 12  2. Go to the registration page.  3. Choose the option register with email  4. Enter valid email  5. Confirm registration via email  6. Click "Enter to app Spaces by Wix  7. Repeat steps 1-6 for device with OS Android 14 | The user is successfully registered on devices running Android versions 12 and 14 | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.3** | **Successful login with valid credentials** | Verify the ability to log in using valid email and password on devices running Android version 12 and 14 | Accept to devices running Android version 12 and 14  The user has an existing account | 1. Open the login page on device with OS Android 12  2. Enter a valid email and password.  3. Click "Login"  4. Repeat steps 1-3 for device with OS Android 14 | The user is successfully logged in on devices running Android 12 and 14 and redirected to the homepage | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.4** | **Add product to cart** | Verify that products adding to the cart | The app is installed and launched on devices with Android versions 12 and 14;  The user is on the product page | 1. Open the application on device with OS Android 12  2. Open product catalog  3. Press the "Add to Cart" button on the product page.  4. Navigate to the cart.  5. Observe the product on the cart  6. Repeat steps 1-5 for device with OS Android 14 | The product is added to the cart, and the cart displays correct product information (name, quantity, price) | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.5** | **Placing an Order via cart** | Verify the ability to place an order through the cart | The app is installed and launched on devices with Android versions 12 and 14;  The user has a product in the cart | 1. Open the application on device with OS Android 12  2. Open the cart.  3. Review the items in the cart.  4. Press the "Place Order" button.  5. Repeat steps 1-4 for device with OS Android 14 | The order is successfully placed, and a confirmation screen appears with order details | Fail | The order placement function has not been developed yet |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.6** | **Log Out of the App** | Verify the ability to log out on devices running Android version 12 and 14 | Accept to devices running Android version 12 and 14. The user is on the Profile page | 1. Go to the "Profile" section on device with OS Android 12  2. Scroll the page down to the button “Log out”.  3. Press the "Log Out" button.  4. Confirm the log out.  5. Repeat steps 1-4 for device with OS Android 14 | The user is successfully logged out on devices running Android versions 12 and 14 | Pass |  |

1. **Correct display**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **3.1** | **Correct display of the main page** | Verify that the main page of the application displays all elements correctly, including the logo, navigation menu, products | The app is installed and launched on devices with Android versions 12 and 14 | 1. Open the application on device with OS Android 12  2. Navigate to the main page.  3. Observe the displayed elements.  4. Repeat steps 1-3 for device with OS Android 14 | The main page is displayed with the following elements on devices running Android versions 12 and 14  The company logo is visible and correctly positioned on both OS.  The navigation menu contains the following items: Home, Shop or Products,Services, General information.  Products are displayed with their names, prices, and images.  Icon cart are displayed clearly and correctly. | Fail | The company logo is visible and correctly positioned.  The navigation menu contains the following items: Main, Schedule, Services, Groups, Shop, General info.  Products are not displayed with their names, prices, and images.  Icon cart are displayed clearly and correctly.  The button Shop is invisible on a main page |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **3.2** | **Viewing products** | Viewing product information | The app is installed and launched on devices with Android versions 12 and 14;  The app is open, the user is on the product catalog page | 1. Open the application on device with OS Android 12  2. Navigate to the product catalog.  3. Select any product from the catalog.  4. View the product details.  5. Repeat steps 1-4 for device with OS Android 14 | The product page displays correct information (name, description, specifications, price, product images) | Fail | Products are displayed in different languages without a unified style and with varying image quality |

1. **Gesture functional**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **4.1** | **Verifying swipe gesture on app screens** | Ensure that the swipe gesture (left, right, up, down) works correctly on app screens that support scrolling | The app is installed and running on a device with a touch screen and Android versions 12 and 14;  A screen in the app supports horizontal or vertical scrolling | 1. Open the application on device with OS Android 12  2. Open a screen in the app that supports scrolling (e.g., product list, shop).  3. Perform a swipe gesture (left, right, up, and down).  4. Observe the scrolling behavior.  5. Repeat steps 1-4 for device with OS Android 14 | The swipe gesture smoothly scrolls the content in the intended direction without delays or errors. | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **4.2** | **Verifying pinch-to-zoom gesture on app screens** | Ensure that the pinch-to-zoom gesture works correctly on app screens that support zooming (e.g., images, maps) | The app is installed and running on a device with a touch screen and Android versions 12 and 14;  A screen in the app supports zooming. | 1. Open the application on device with OS Android 12  2. Open product catalog  3. Choose any product with image  4. Tap on image  5. Perform a pinch-to-zoom gesture to zoom in and out.  6. Observe the zooming behavior.  7. Repeat steps 1-6 for device with OS Android 14 | The pinch-to-zoom gesture works smoothly, and the screen content adjusts in size as expected | Pass |  |

1. **Localization**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **5.1** | **Verify localization of the home screen** | Check that all text elements on the home screen are correctly translated | The app is installed on a device with the target language set (e.g., French, German, Spanish) | 1. Open the mobile app.  2. Review the text elements, including headings, navigation buttons (menu, cart) and other text components.  3. Validate the accuracy of the translation and the design layout. | All text elements are correctly localized and contextually appropriate.  Text does not overflow UI elements, and all components maintain their original style. | Fail | Not all text elements are correctly localized on the home screen |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **5.2** | **Verify Localization of the Product Details** | Check the correct translation of product details (name, description, price, specifications) and proper formatting based on local standards | The app is running in a language different from the original (e.g., German, Italian) | 1. Navigate to the Shop  2. Open any product from list  3. Review the translation of the product name, description, specifications, and color options.  4. Verify the price format and the correct currency symbol. | All text elements are translated accurately.  Prices display in the correct currency with proper formatting (e.g., euros for Europe, dollars for the U.S.). | Fail | There are issues with the translation of the product information, as not all words are displayed in the selected language. Additionally, the price is not shown in the correct currency according to the country |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **5.3** | **Verify Right-to-Left (RTL) Language Support** | Check that the app interface and features work correctly for languages that are read from right to left (e.g., Arabic) | The app is running on a device with a right-to-left (RTL) language setting (e.g., Arabic). | 1. Set the app language to Arabic (or another RTL language).  2. Copy any part of text and translate to English  3. Verify that text readable from RTL  4. Verify the alignment of text and UI elements on the home screen, product page, cart, and checkout.  5. Check that navigation and the placement of icons and buttons are correct. | All UI elements are flipped and displayed correctly for RTL languages.  Text and other components remain legible and function as expected. | Fail | When selecting Arabic, some elements remain aligned to the left, and there are sections of untranslated text. |

1. **Battery Consumption**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **6.1** | **Check battery consumption during app launch** | Verify how much battery is consumed when launching the app | The app is installed on the device.  The device is charged to 100%. | 1. Close all background applications.  2. Note the battery percentage.  3. Launch the app.  4. After 1 minute, close the app.  5. Note the battery percentage. | Battery consumption does not exceed 1-2 % over 1 minute. | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **6.2** | **Check battery consumption while viewing content** | Verify battery consumption while watching video/images in the app | The app is installed on the device.  The device is charged to 100% | 1. Note the battery percentage.  2. Launch the app  3. Navigate to the button Video  4. Start viewing a video.  5. Navigate to the Shop button  6. Start viewing any product from the list  7. Continue viewing for 1 minute.  8. Note the battery percentage. | Battery consumption does not exceed 4-5% over 1 minute | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **6.3** | **Check battery consumption during active interaction with the app** | Verify battery consumption during active actions in the app (adding to cart, settings changes) | The app is installed on the device.  The device is charged to 100%. | 1. Note the battery percentage.  2. Launch the app and perform several active actions (add an item to cart, change settings).  3. Continue interacting for 1 minute.  4. Note the battery percentage. | Battery consumption does not exceed 2-3% over 1 minute | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **6.4** | **Battery consumption in background mode** | Measure how much battery is used by the app when it is running in the background | The app is installed on the device.  The device is charged to 100%. | 1. Launch the app and perform a few any actions.  2. Note the battery percentage.  3. Return to the home screen or close the app (keeping it running in the background).  4. Leave the app in the background for 1 minute.  5. Note the battery percentage. | Battery consumption does not exceed 1% over 1 minute | Pass |  |

1. **UI testing**

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **7.1** | **Verify screen resolution on high-**  **resolution devices** | Verify that the application displays correctly on a device with high resolution (e.g., Super AMOLED - 1080 x 2400) | The application is installed on a high-resolution device. | 1. Launch the application.  2. Navigate through different sections of the app.  3. Check for clarity and sharpness of images and text. | All images and text should be clear and sharp without any pixelation or blurriness | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **7.2** | **Verify responsiveness of UI elements** | Verify that UI elements adapt properly to different screen resolutions | The application is installed on multiple devices with varying resolutions. | 1. Launch the application on a device with a specific resolution (e.g., 1080x2400).  2. Record the size and position of UI elements.  3. Repeat the process on devices with different resolutions (e.g.,2000x1200).  4. Compare the size and position of UI elements across devices. | UI elements should maintain consistent proportions and positions across different resolutions | Pass |  |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **7.3** | **Verify content scaling on various screen sizes** | Verify that content scales properly on devices with different screen sizes and resolutions | The application is installed on devices with varying screen sizes and resolutions | 1. Launch the application on a screen device 6.5 inches  2. Note the scaling of text, images, and buttons.  3. Navigate to the Group button  4. Push the icon 'Група Skybot'  5. Observe the behavior of elements.  6. Repeat the process on a large screen device (e.g., 11 inches).  4. Compare the scaling and layout of content. | Content should scale appropriately without overlapping or disappearing, regardless of screen size. | Fail | Not all elements on the page are readable |

| **ID** | **Title** | **Description** | **Precondition** | **Steps** | **Expected Result** | **Status** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **7.4** | **Screen Rotation Check** | Ensure correct adaptation when switching between portrait and landscape orientation | Installed app; device with screen rotation support | 1. Open the app in portrait. 2. Rotate to landscape.3. Verify UI adapts correctly.4. Repeat for various app screens. | Interface adapts correctly to orientation changes without misalignment or overlaps |  | The application only displays the portrait orientation, and when switching to landscape, the screen remains locked in portrait mode. The interface does not adapt to landscape orientation, and elements remain fixed as they were in portrait mode. |

**SMA Test Report**

**Project:** Skybot Mobile Application Version 2.0

**Test Type:** Compatibility Testing

**Tested On:** Android 12, Android 14

**Test Date**: October 2024

**Tested By:** O.Solodka

**Summary:**

This test report summarizes the compatibility testing of the mobile app on Android devices running versions 12 and 14. The primary goal of this testing was to ensure that the application functions as expected across different Android versions, focusing on installation, basic functionality, UI, and performance. The results are categorized as Pass or Fail based on whether the expected outcomes were met.

**Test Cases Overview:**

Total Test Cases Executed: **24**

Test Cases Passed: **16**

Test Cases Failed: **8**

Success Rate: **66.67%**

### **Detailed Test Results**

| ID | Test | Status | Notes |
| --- | --- | --- | --- |
| 1.1 | Install the app on Android 12/14 | Pass | The app installed successfully on both Android versions. |
| 1.2 | Launch the app on Android 12/14 | Pass | The app launched correctly on Android 12 and 14 without issues |
| 1.3 | Uninstall the app | Pass | The app uninstalled without any problems on both versions |
| 2.1 | Core app functionality on Android 12/14 | Pass | All core features performed as expected. |
| 2.2 | New user registration | Pass | User registration completed successfully |
| 2.3 | User login with valid credentials | Pass | Login process worked correctly with valid credentials |
| 2.4 | Add product to cart | Pass | Products were successfully added to the shopping cart. |
| 2.5 | Checkout process via cart | Fail | The checkout feature is not yet developed, preventing order completion |
| 2.6 | Logout | Pass | The user was able to log out successfully |
| 3.1 | Display of main page elements | Fail | Certain elements (e.g., "Shop" button) were not visible, and products were not displayed correctly |
| 3.2 | Product view and information display | Fail | Issues with product image quality and inconsistent translations |
| 4.1 | Scroll gestures functionality | Pass | Scrolling gestures worked correctly across the app |
| 4.2 | Zoom gestures functionality | Pass | Zooming gestures were responsive and functional |
| 5.1 | Localization of main screen elements | Fail | Some text was not localized, leading to partial translation on the main screen |
| 5.2 | Product details localization | Fail | Inconsistent translations and currency formats were found in product details |
| 5.3 | RTL language support | Fail | Issues with element alignment and missing translations for RTL languages |
| 6.1 | Power consumption during app launch | Pass | The app's power consumption during launch was within acceptable limits (1-2%) |
| 6.2 | Power consumption during content browsing | Pass | Power usage during content viewing was moderate (4-5%) |
| 6.3 | Power consumption during user interaction | Pass | Power consumption during interactions was within the expected range (2-3%) |
| 6.4 | Power consumption in background mode | Pass | The app's background energy usage was low (≤1%) |
| 7.1 | Screen resolution check | Pass | All interface elements were clear and properly rendered |
| 7.2 | UI element consistency | Pass | UI elements were consistent across different app screens. |
| 7.3 | Scaling on larger screen sizes | Fail | Some UI elements were not fully readable on larger displays |
| 7.4 | Screen rotation support | Fail | The app does not support landscape mode, causing issues on larger devices |

**Key Findings:**

***Pass Rate:*** The majority of the core functionalities (e.g., installation, login, basic navigation, swipe gestures) passed without any critical issues.

***Localization Issues:*** Several failures were noted in localization (both in general translation and RTL language support).

***Product Display:*** Significant issues with displaying products and product details were observed, including language inconsistencies and missing elements.

***Landscape Mode:*** The app did not support landscape mode, remaining locked in portrait orientation across both versions.

***Battery Usage:*** The app performed within acceptable battery consumption limits for all tested scenarios.

***Pending Feature:*** The "Place Order" feature has not been developed yet, leading to a failure for this test case.

**Conclusion:**

The app demonstrates good compatibility with Android versions 12 and 14 for most core functionalities. However, there are several areas that require attention, particularly localization, product display, and the lack of support for landscape orientation. Fixing these issues will improve the user experience across different devices and regions.