**Hardware requirements for a mobile app (ANDROID)**

| ***Minimum hardware requirements for the Android platform:*** | ***Recommended requirements:*** | ***Actual mobile device for testing:***  ***OnePlus 11 5g*** |
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| 1. **Operating system**: Android 9.0 (Lollipop) or later | * Android 7.0 (Nougat) or later | * OxygenOS 14.0 based on Android™ 14   [OS version.jpg](https://drive.google.com/file/d/1CpMgcUAnx4Sr9J47CUgGmOcNRs29MEAv/view?usp=sharing)(based on the app CPU X) |
| 1. **Processor:** quad-core processor with a clock speed of 1.4 GHz or higher | * An octa-core processor with a clock frequency of 1.8 GHz or higher | * Qualcomm® Snapdragon™ 8 Gen 2 Mobile Platform   [CPU description.jpg](https://drive.google.com/file/d/1CiVfG0eHcPJY1O4pzPfrYDynGK4FP28V/view?usp=sharing)(based on the app CPU X) |
| 1. **RAM:** at least 1 GB RAM | * At least 2 GB of RAM or more | * RAM: 16GB LPDDR5X   [RAM.jpg](https://drive.google.com/file/d/1DNcgjmXkOUSjiJniNvBBYxkUIG5kSZyz/view?usp=sharing)(based on the app CPU X) |
| 1. **Internal memory:** 50 MB to 100 MB for application installation | * 200 MB to 500 MB is recommended for possible data and cache storage. | * Storage: 128GB UFS 3.1/256GB UFS 4.0   [RAM.jpg](https://drive.google.com/file/d/1DNcgjmXkOUSjiJniNvBBYxkUIG5kSZyz/view?usp=sharing)(based on the app CPU X) |
| 1. **Screen:** resolution of at least 720 x 1280 pixels, recommended screen size 4.7 inches or larger | * Resolution 1080 x 1920 pixels or higher, recommended screen size 5 inches or larger for comfortable display of large amounts of information. | * Size: 6.7" (measured diagonally from corner to corner) * Resolution: 3216\*1440 (QHD+), 525 ppi * Aspect Ratio: 20.1:9 * Refresh Rate: 1-120 Hz dynamic * Type: 120 Hz Super Fluid AMOLED with LTPO * Touch Response Rate: Up to 1000 Hz * Support sRGB, Display P3, 10-bit Color Depth * Cover Glass: Corning® Gorilla® Glass Victus   [Display.jpg](https://drive.google.com/file/d/1Da_O5UJEKN9ss9YpSvEOioEVEXAiHDeK/view?usp=sharing)(based on the app AIDA64) |
| 1. **Internet:** Internet connection via Wi-Fi or mobile network (3G/4G/5G) | * Support for fast Internet connection (4G/5G or faster Wi-Fi) | * 2×2 MIMO, Support 2.4G/5G, Wi-Fi 7, Support WiFi 802.11 a/b/g/n/ac/ax/be * mobile network **- 3G, 4G, 5G**   [WiFi.jpg](https://drive.google.com/file/d/1Djn2ATtD4iCCfEjg3MJEXK9AtZIwL8fL/view?usp=sharing)(based on the app AIDA64) |
| 1. **Camera:** the presence of a front and rear camera (for the possibility of uploading photos of goods, as well as a possible barcode scanning function) |  | * **Main Camera**   Sensor: Sony IMX890  Sensor Size: 1/1.56"  Megapixels: 50  Pixel Size: 1.0 µm   * **Ultra-wide Camera**   Sensor: Sony IMX581  Sensor Size: 1/2"  Megapixels: 48   * **Portrait Tele Camera**   Sensor: Sony IMX709  Sensor Size: 1/2.74"  Megapixels: 32  Optical zoom: 2X   * **Front Camera**   Megapixels: 16  Pixel Size: 1.0 µm  Electronic Image Stabilization: Yes  Autofocus: Fixed Focus  [Rear camera.jpg](https://drive.google.com/file/d/1Dq2zc1EV_eKOZiGn7QB93x6G43Al59cQ/view?usp=sharing)[Front camera.jpg](https://drive.google.com/file/d/1Duaj_7vTqBvUURtcEBy_E7pxfZjjdG-w/view?usp=sharing) (based on the app CPU X) |
| 1. **Geolocation:** support for GPS or other location mechanisms (if the app has geolocation-related features, such as showing stores around the user). |  | * GPS (L1+L5 Dual Band), GLONASS, Galileo (E1+E5a Dual Band), Beidou, A-GPS, QZSS |
|  | * **Battery** capacity that ensures normal operation during a day of active use | * Battery: 5,000 mAh (Dual-cell 2,500 mAh, non-removable) * SUPERVOOC 100W   [Battery.jpg](https://drive.google.com/file/d/1DwA9VECD2U3xcNeIqZQEYSjfDTOqex2y/view?usp=sharing)(based on the app CPU X) |
|  | * **Touch screen:** multi-touch support for easy navigation and zooming. | * In-display Fingerprint Sensor * Accelerometer * M-sensor Electronic Compass * Gyroscope * Ambient Light Sensor * Proximity Sensor * Sensor Core * Flick-detect Sensor |

## Comments:

After analyzing the hardware requirements for Android and comparing it with the actual mobile device (OnePlus 11 5G), we can summarize that this device fully and completely corresponds to the declared characteristics.

All operations with application SKYBOT are smooth and stable. Application works properly on the device without errors and delays.

1. Application SKYBOT works properly with OS Android 14.0
2. The application is displayed in the screen resolution - Fluid AMOLED, 1B colors, 120Hz, HDR10+, 1450 nits (peak)

* interface elements are displayed correctly and retain their functionality

1. Application works properly in the portrait mode, *but does not support landscape mode*
2. Application SKYBOT is perfectly displayed on the screen with the size of 6.7". All elements are visible and User can interact with them without any inconvenience.
3. The application fully corresponds to the hardware requirements of a mobile device and works in a great mode, presenting excellent functionality

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## Recommendations:

For Android system I would recommend to include additional characteristics:

1. To define Video Supported Formats (as we have functions of watching and uploading videos)
2. To define Image Supported Formats (as we have functions of uploading photos to the application)
3. Devices must support Google Play Services.

And the main recommendation is to choose versions of Android OS which the company wants to use.

For today, **Google no longer supports Android 7.0 Nougat** and is unsupported with no more security updates after October 2019. Also **Android Oreo 8.0 no longer receives security updates from Google** and is officially no longer supported.