

Sphero White List Approval Process

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Introduction:

The Sphero white list approval process was created to manage the external submissions in relation to the Apple App Store. Orbotix must approve the app before it may be published to the App Store. While the Google Play Store and Amazon Marketplace do not have a whitelist approval process for release to their stores, we at Orbotix request that third party app submissions go through us at the very minimum as a “courtesy” to us. Even though Orbotix might not produce the app, it may still reflect poorly on the Sphero brand. External developers who adhere to the extension of this “courtesy” to us likewise, may expect the same level of courtesy from Orbotix to them in the form of QA analysis of the app, feedback on the gameplay, and advice and assistance from our development team.

Guidelines:

There are two primary areas that our whitelist evaluation focuses on primarily.

App Store Review Guidelines, which are areas that Apple reviews when an App is submitted. If it is an area that Apple would likely fail an App for, developers can count on us failing it or at the very least, raising a concern to the developer before submission. Like any assessment process there are shades of grey however, we look at the most logical offenses, bad or defaming language, controversial subject matter, or other areas that are specifically cited violations to App Store guidelines.

The second area is in relation to items that affect our branding, product reputation, or company reputation. Most of these test case steps will look for anything that might cause a customer to believe there is a problem with their Sphero such as not disconnecting properly (one of our number one failure cases) or improper use of the company logos, distorting logos, improperly or unsafely using a Sphero in a manner that could harm a person, pet, or property.

The Process:

Once an app is ready for submission and testing, the developers will begin interacting with the Quality Assurance department at Orbotix Inc. Most of this communication is handled by email.

For iOS apps, the developer is usually requested to submit an IPA build to a free hosting service such as Test Flight or Hockey App. The QA department will provide

a small list of UUID's for devices that they test on. Usually, and iPhone 4s and iPad3 are sufficient but in rare cases, Orbotix might request additional of more devices for more complex apps or the release of an app "scheduled out" in the future with Apple such that download codes can be issued for additional testing.

Android apps are generally simpler. The developer may upload the APK file to Spheroverse, or simply email the APK file to the QA contact as long as under 25MB. If larger, a hosting service such as Hockey App or sharing via a drop box folder might be necessary.

The QA department will review the app against the whitelist checklist criterion. A report will be sent to the external developer once testing is complete. Note: Depending on the number of apps in process, internal developments, and seasonal business spikes, a developer may get a response the same day, or in some rare cases it might take a week or two to get the app scheduled into the test plan. In either case, a communication will be sent to the external developer to let them know what is happening.

The report sent to the developer will include all pass and failed items or items that require more information. When possible, the QA department will provide crash logs, screenshots with redlines, or any other steps to reproduce to aid the developer in identifying the problem area.

As a courtesy, the QA department will also offer feedback on the Quality of the app such as graphical UI, sound fx, music, clarity of instructions, suggestions on game play, use case assessments for UI issues, etc. In the majority of cases, these items are "suggestive" in nature and often are not showstoppers for a release but are items that if improved, would result in a higher quality app or game. In contests, contestants that acted on this advice have seen greater consideration in placement in the final awards and higher awards for their efforts. Likewise, Orbotix is more likely to promote an app of higher quality than an app that demonstrates the bare minimum in functionality.

Contest rules, deadlines, and prize awards are all handled by the Developer Relations Department. The quality of the app submitted plays a significant factor in that department's review of an app submission. However, questions regarding such contests should be directed to that department. QA only aids in assessing if the app is ready for release to the appropriate platform stores.

The Test Case items in the White List Smoke Test are as follows:

Sphero White List Approval Smoke Test

Step	Expected Behavior
App Functionality	Complies with Section 2 of App Store Review Guidelines for Functionality i.e. no crashes, no bugs, not performing as advertised, undocumented or hidden features, iPhone apps must run on iPad without modification in 2x, etc.
Metadata	Complies with Section 3 of App Store Review Guidelines for metadata i.e.No mention of other mobile platform, no placeholder text, no irrelevant descriptions, app names must be consistent, large and small icons must be similar, no inappropriate keywords, cannot require restart of device for installation or launch of app, etc.
Location	Complies with Section 4 of App Store Review Guidelines for Location information i.e. must notify user and obtain consent before collecting transmitting or using their location data.
Push Notifications	Complies with Section 5 of App Store Guidelines for Push Notifications i.e. must use APN API, must obtain user consent, no sending of personal confidential or sensitive information, cannot be used to push advertisements, etc.
Damage to iOS Device	Complies with Section 13 of App Store Review Guidelines for Damage to Device i.e. does not encourage damaging the users device or rapidly drain the battery.
Launch game and connect to Sphero	Opens connection to Sphero.
Game Controller Use	Performs smooth, game reacts well to motion without significant latency, delays or loss of connection.
App interaction mechanic not reckless	Control mechanic is not reckless, requiring of excessive rapid spins, throwing of controller, or any motion that could harm Sphero, Players, or environment. i.e. resulting in broken furniture, windows, fixtures, injury.
Instructions / User Guide	App has proper instructions or user guide to how to use app or play game. Instructions are not too verbose or overly detailed in alignment with Apple's Human Interface Guide.
Art Assets	Art assets are of proper professional quality as not to imply placeholder art or amateur quality. Art is not plagiarized from any licensed or protected source.
Audio Assets	Audio assets are if proper professional quality as not to imply placeholder sounds or amateur quality. Audio is not plagiarized from any licensed or protected source.
Feedback Mechanic Consistent	If a feedback mechanic is used such as changing Sphero's color, vibration, or motion; does so consistently as not to imply a failure with Sphero or quality of Sphero as a

	product.
State Management	Sphero's state does not become unstable during game process, i.e. colors or movements persisting into next round of game (except by game design), commands aggregating to the point of a crash or improper function of the ball. This may require playing through multiple rounds of the game to verify.
Drive Mechanic	If drive mechanic is used, Sphero drives correctly, no runaway balls or loss of control that could damage Sphero, environment, or other people. i.e. los of connection, running out into traffic, etc.
Acceptable Use	App is designed to function with out of box Sphero and does not require alteration of a Sphero, breaking open, gluing attachments, or other requirement that could harm Sphero's ongoing designed use or harm a user. (Exception may exist if properly warned of need in app / play store, instructions provided for building or acquiring the item, and attachment is not permanent such as harnesses, chariots, helmets, etc.)
Proper disconnect	When exiting the app, stop play, etc, the ball returns to normal state, stabilization turns back on, tail lights turn off, motors stop, blinking, strobing, etc, return to normal default color state.
Logo Usage	Logo Usage conforms to the proper use of Orbotix and / or Sphero logos as approved by the executive team. Logo usage does not alter logo, parody logo, result in embarrassment for company or product, is not malicious or defaming to the product or company. Developer does not portray itself as representing Orbotix, working for Orbotix, or any statement or actions that would confuse a customer into believing the developer was affiliated with Orbotix vs. being a 3 rd party developer.
Referential Materials	Hyperlinking to Orbotix, GoSphero.com, etc, all have proper functional URL's, presentation layer is acceptable format, and conforms with the image of the company and product as set forth by the executive team. 3 Rd party developer agrees to update such links or references when changed by Orbotix or to remove such links at developers discretion as not to pose embarrassment to Orbotix or the Sphero line by creating perceived outages on Orbotix part where such outage may not exist.

Conclusion:

The objective of this process is to ensure the best quality app possible for use with Sphero. Many of the items discussed are things that reduce the risk of a rejection from Apple's review process and / or potential negative reviews on the Play Store, Amazon Market, or Apple App Store.

We encourage developers, hobbyists and hackers to experiment with our SDK, reinvent something to make it better with Sphero, or come up with rich and new ideas never thought of. The round nature of the Sphero ball illustrates a shape with no beginning and no end, and reminds us of the endless possibilities that Sphero has to offer.

Have fun and unleash your creativity!