

# Ouya

Finally, a modern freedom-respecting gaming console?

Adam Bolte

# What is it?

- “A New Kind of Video Game Console”
- Tiny ARM-based game console for TV
- Project launched on Kickstarter
- Asking price was US\$99 + US\$20 shipping
- Not currently available in AU retail AFAICT.
- Plans to release a new version of the hardware every year.

# 1<sup>st</sup> gen hardware

- Nvidia T33-P-A3 Tegra 3 Multi-Core CPU
- 1Gb RAM
- 8Gb internal storage (expandable via USB storage)
- HDMI
- AzureWave AW-NH660 Wi-Fi/Bluetooth 4.0 module, based on **Broadcom BCM4330 (proprietary firmware)**
- Ethernet
- USB2.0 host + micro-USB (for PC connectivity)
- Hex screwdriver required to open
- No AU power plug – uses a non-standard (illegal?) US → AU adapter which I had to replace
- Bluetooth controller with built-in touchpad

# Software freedom

- No mention of any software licensing in the box, and licensing information on the device is hard to find and harder to navigate!

- Free software Tegra 3 drivers in the works?

[http://www.phoronix.com/scan.php?page=article&item=nvidia\\_tegra\\_3d](http://www.phoronix.com/scan.php?page=article&item=nvidia_tegra_3d)

- Some code dumped on GitHub (runs Android 4.1.2 - Jelly Bean)

<https://github.com/ouya/>

- ODK released under the Apache Licence v2.0

<https://devs.ouya.tv/developers>

- Reports indicate that the bootloader is proprietary and locked.
- Developer website pushes proprietary tools such as Unity Game Engine, Adobe Air, etc.
- Instructions for Windows and Mac only.

# First impressions – the good

- Impressively small.
- More connectivity options than some competing game consoles such as the Wii-U.
- Development area right on the main menu.
- Huge number of games already out.
- All games have a free-to-play component.
- Games actually run at 1080p (Xbox 360 and PS3 games typically run at 720p).

# First impressions – the bad

- Shipping box was soggy and looked like it had been used as a football. Many similar reports online.
- Instructions included were minimal. Could not figure out the controller. Again, no printed software licensing information was included.
- US->AU power adapter doesn't fit many standard AU plugs
- Before you can get to the main menu, you must enter a credit card or Ouya credit code.
- Most games do not have pricing information up front – you have to load the demo first.
- It is not clear which games are free software, if any!
- Puddle, Ravensword, etc. aren't optimised – options exist to adjust game quality. Further, Puddle frequently crashed – I could not complete the demo.

# Broken promises

- “Don't worry about rooting your device (or purchasing the pre-rooted device). We will provide builds and instructions that can be used to restore the device to 'unrooted' factory state!”

<https://plus.google.com/101870372356034764386/posts/ZyYkxLNeS54?hl=en>

(others have figured it out and instructions can be found, although root access is lost with every system update – they work by formatting /system)

- “Guarantee we will have one available for you, before it gets to stores.”

<http://www.kickstarter.com/projects/ouya/ouya-a-new-kind-of-video-game-console>

- Delays (with some people not receiving pre-orders prior to units being sold in US retail stores). Many reports of a second controller missing from their order, and other screw-ups.
- “Everything opens with standard screws.”

<http://www.kickstarter.com/projects/ouya/ouya-a-new-kind-of-video-game-console>

Not as open as the kickstarter page implied – are hex screws standard?

# Extensive amount of indie content

- Possibly the lowest barrier to entry ever to a popular game console store. Every device is a dev kit – a first? Great for free software development (although not really an advantage over other Android devices in this respect).
- No licensing or publishing fees.
- Lots of featured content, all frequently rotated (automatically randomised?)
- No prices to the player up front is an interesting marketing feature, particularly for cheaper games.



# Hacking scene

- Pretty much every free software emulator around (which the Ouya has enough power to run) has been ported.
- PS3 controllers can be used for some games
- Most APK files can be installed – if it doesn't tie into Google Play.
- Debian chroots

<http://www.geek.com/games/how-to-use-a-playstation-3-controller-with-the-ouya-1560402/>

<http://hexbugsandrockandroll.blogspot.com.au/2013/06/0x0004.html>

# Final thoughts

- Far from perfect – no incentive to push free software to the Discover section.
- Not as 'open' as expected, but more-so than competing consoles. A step in the right direction at least.
- Will be interesting to see how it compares with the SteamBox, expected later this year.