



Daydreaming about Cardboards

Virtual Reality in Android



- 🔑: headless CMS: contentful.com 🇩🇪
- 🐦: [@MarioBodemann](https://twitter.com/MarioBodemann) 🇩🇪
- 📄: bit.ly/mbvrberlin 🇩🇪
- Please interrupt!



Cardboard

Google Cardboard

- easy to produce
- available from different companies
- in different styles/interactions
- You just need a phone™

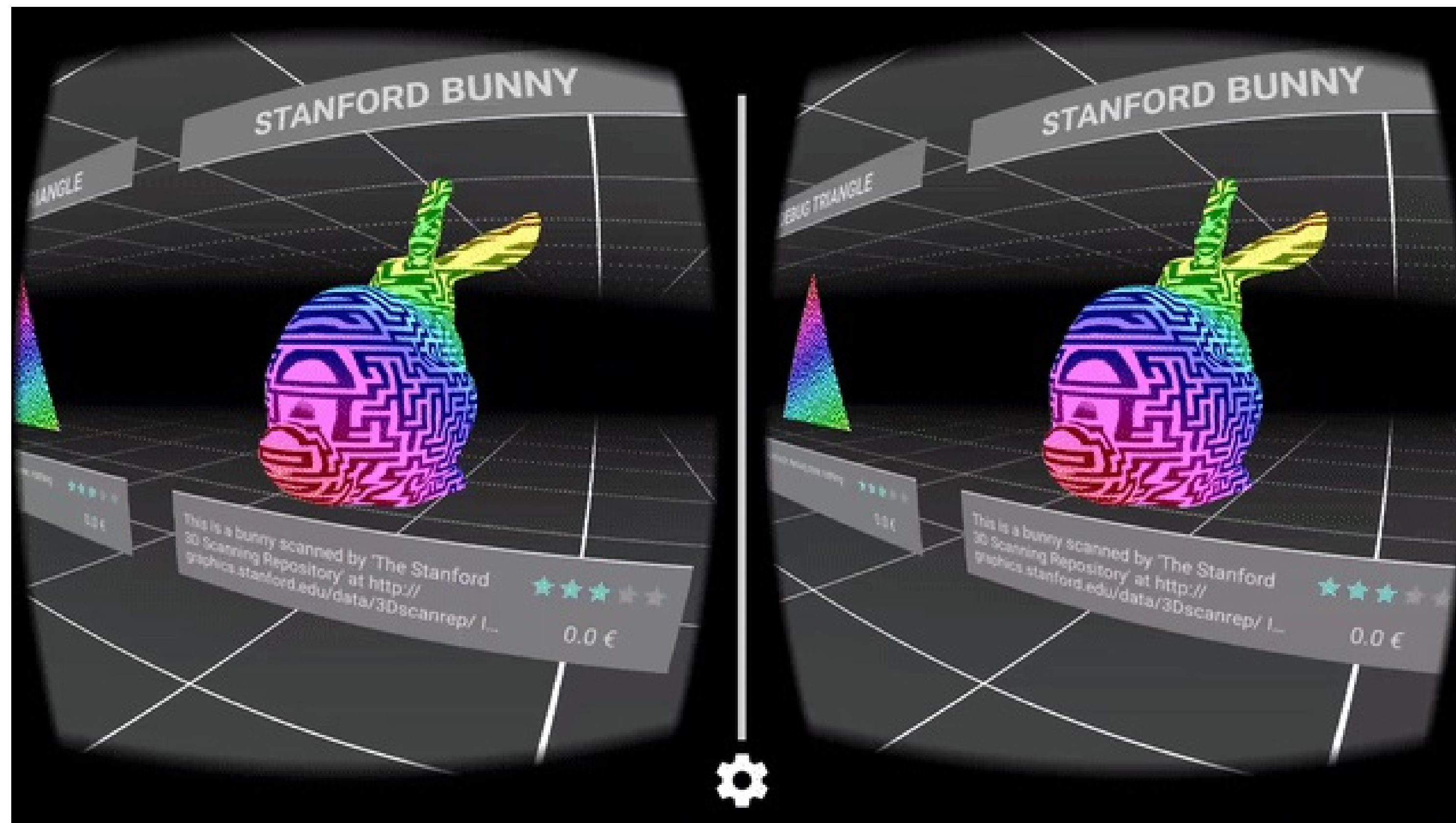




🐦 @themightyjon using Cardboard 🖐️

How does Cardboard work?

- use 3D data and movement to draw two images
 - one for the left and right eye
- contains Lenses to move things away
- brain combines image to 3D scene



How do you program for it?

Googles SDK are available for

- Android (OpenGL)
- IOS (Objective C)
- Unity Engine (C# /JS) x (🍏, G, 🖥️, 🐧)

How do I write a Unity App?

Demo time!



What do those SDKs provide?

- lens distortion correction
- spatial audio
- head tracking
- 3D calibration
- side-by-side rendering

What else do they provide?

- stereo geometry configuration
- user input event handling
- see developer.google.com/vr/android/ 🖐️

What can I do in pure Android only?

- VrPanoramaView/VrVideoView
 - integration of photospheres in view hierarchies
- integration with other (Java) libraries
- sending of Intents easily

Limitations of Android SDK

- using 3D models has to be done by
 - either low level OpenGL or
 - 3rd party 3d engine

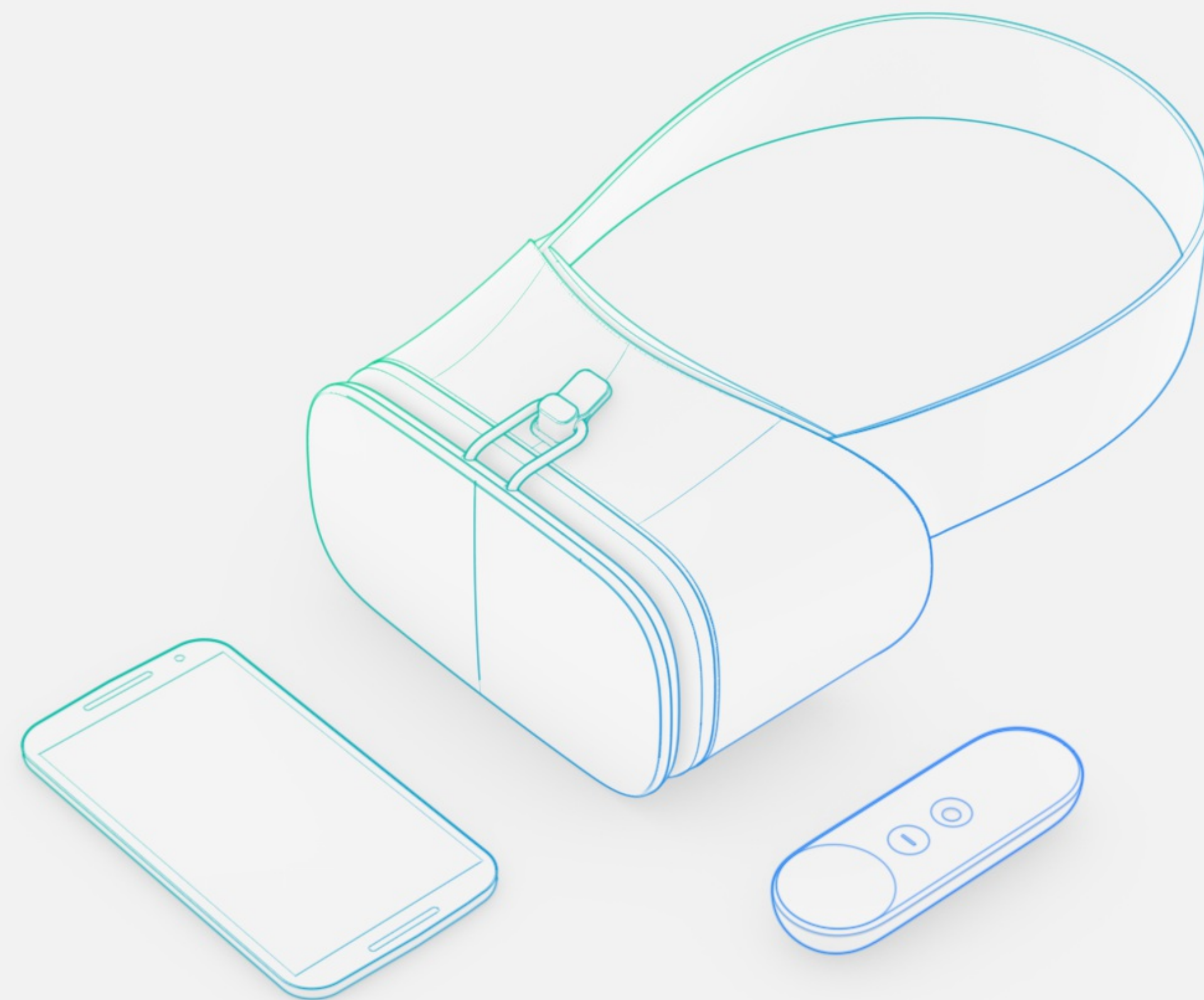
Adding Photospheres to a simple project

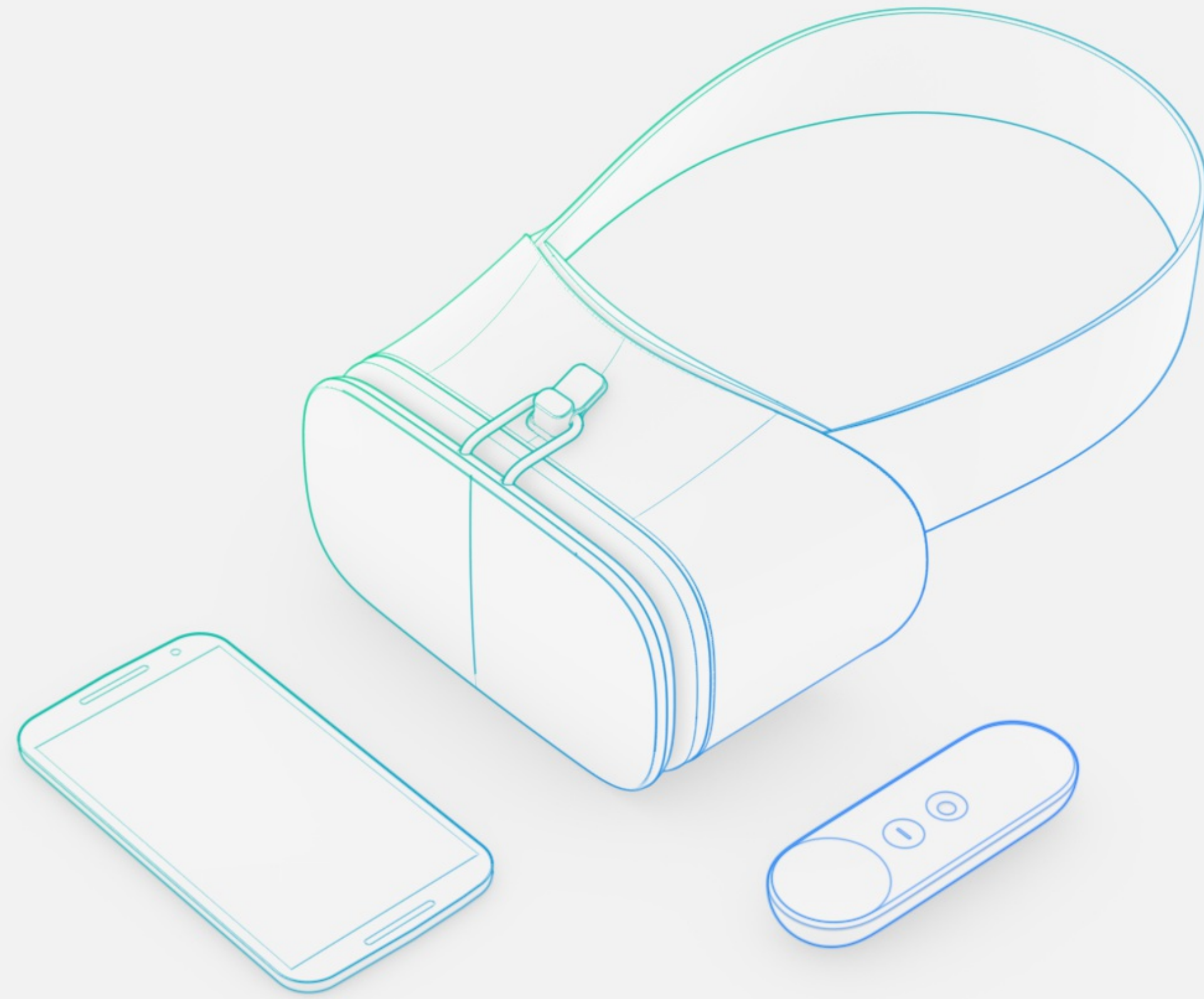
- demo

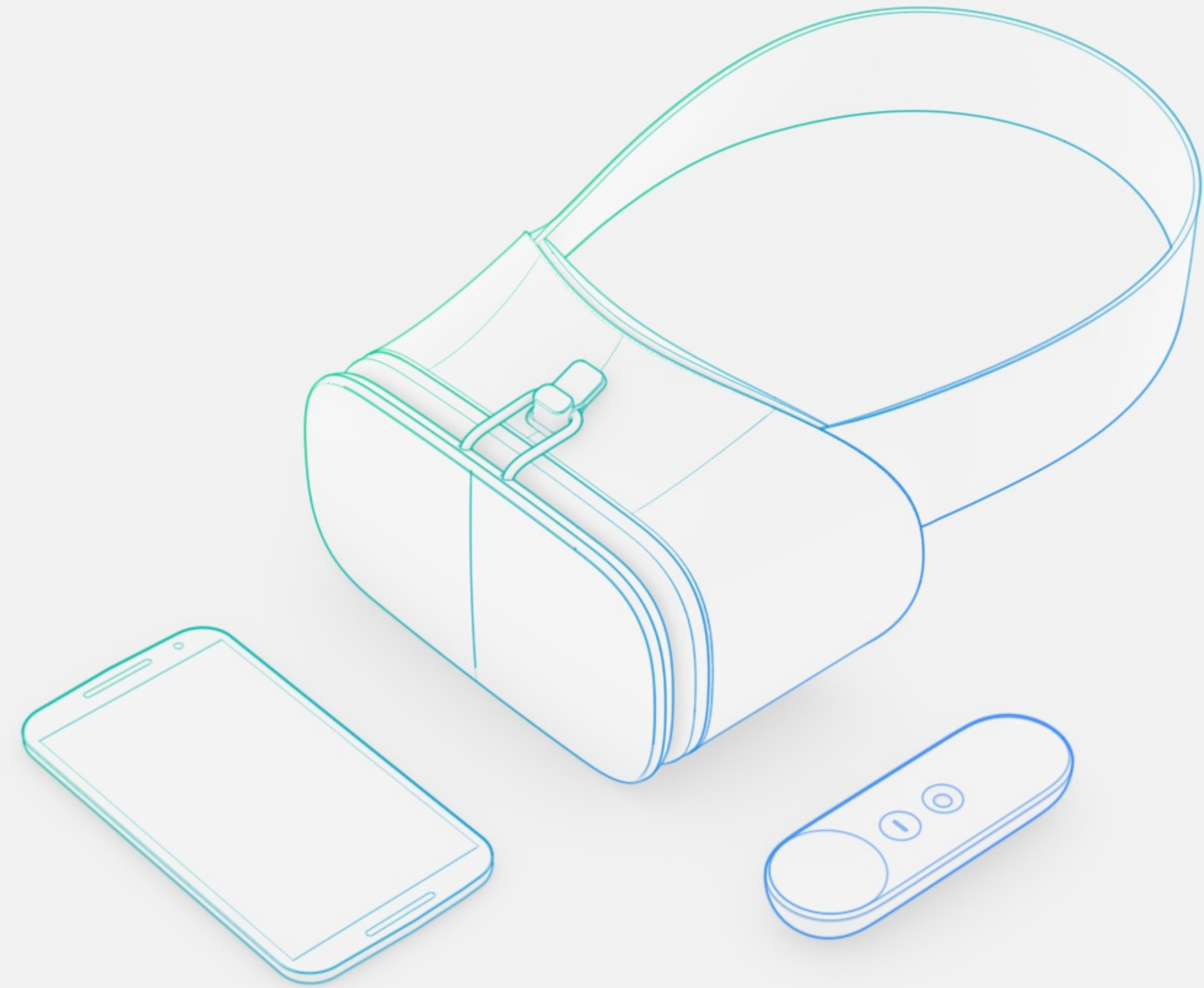


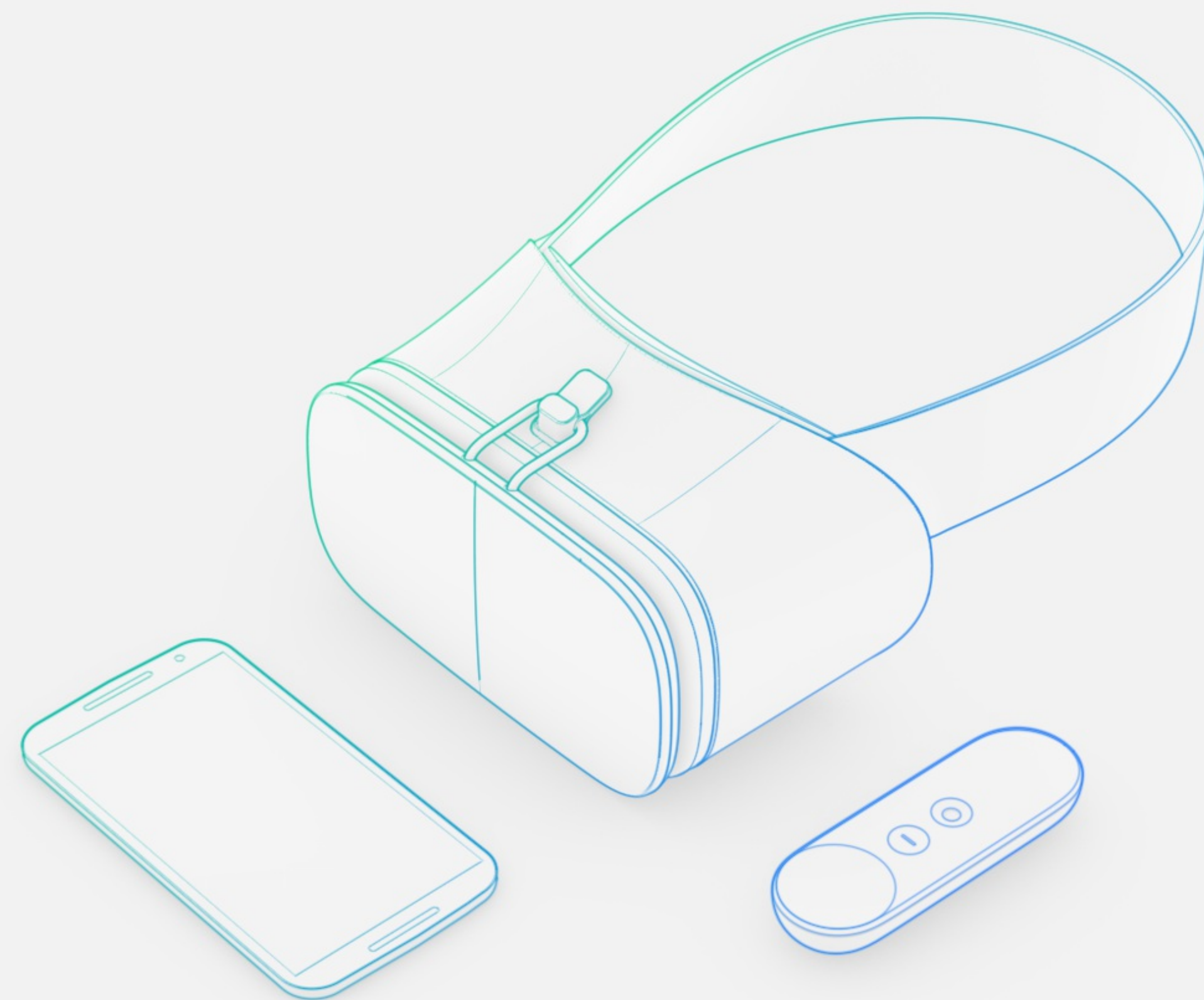


Daydream









New SDK features

- Controlling the controller
 - orientation/acceleration
 - clickpad (x,y, clicked)
 - buttons (App, Vol+/-)
- spatial audio engine

Deprecation & Deletion

- deprecation of v1.0 Cardboards 🤖
 - magnets are uncool!
 - deprecation of cardboard button infavor of controller
- renaming Cardboard* packages to Gvr*

