Daydreaming about Cardboards

Virtual Reality in Android

- 🔧: headless CMS: contentful.com 🔖
- 🐦: @MarioBodemann 🔖
- 📄: bit.ly/mbvrberlin 🔖
  - Please interrupt!

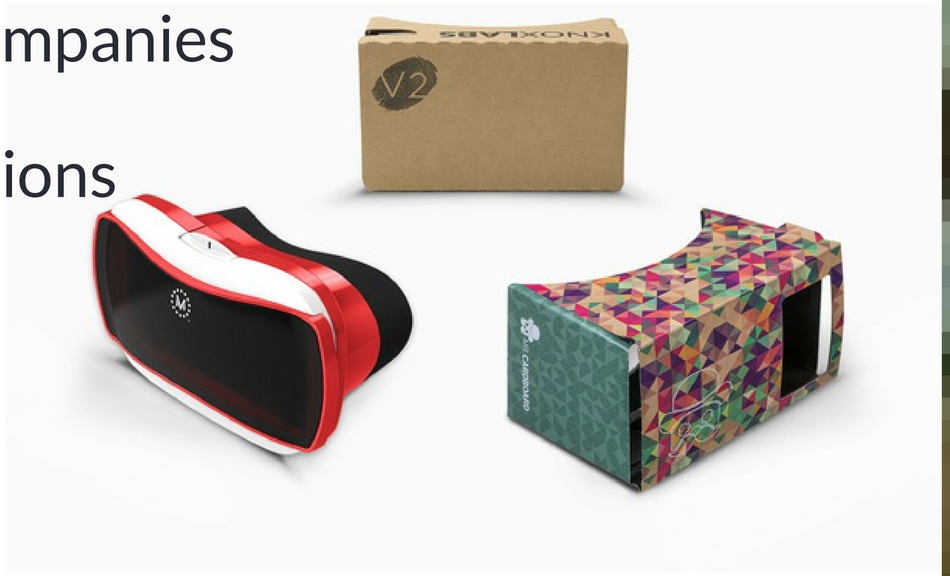
Agenda

-
  Cardboard
-
  Daydream

Cardboard

Google Cardboard

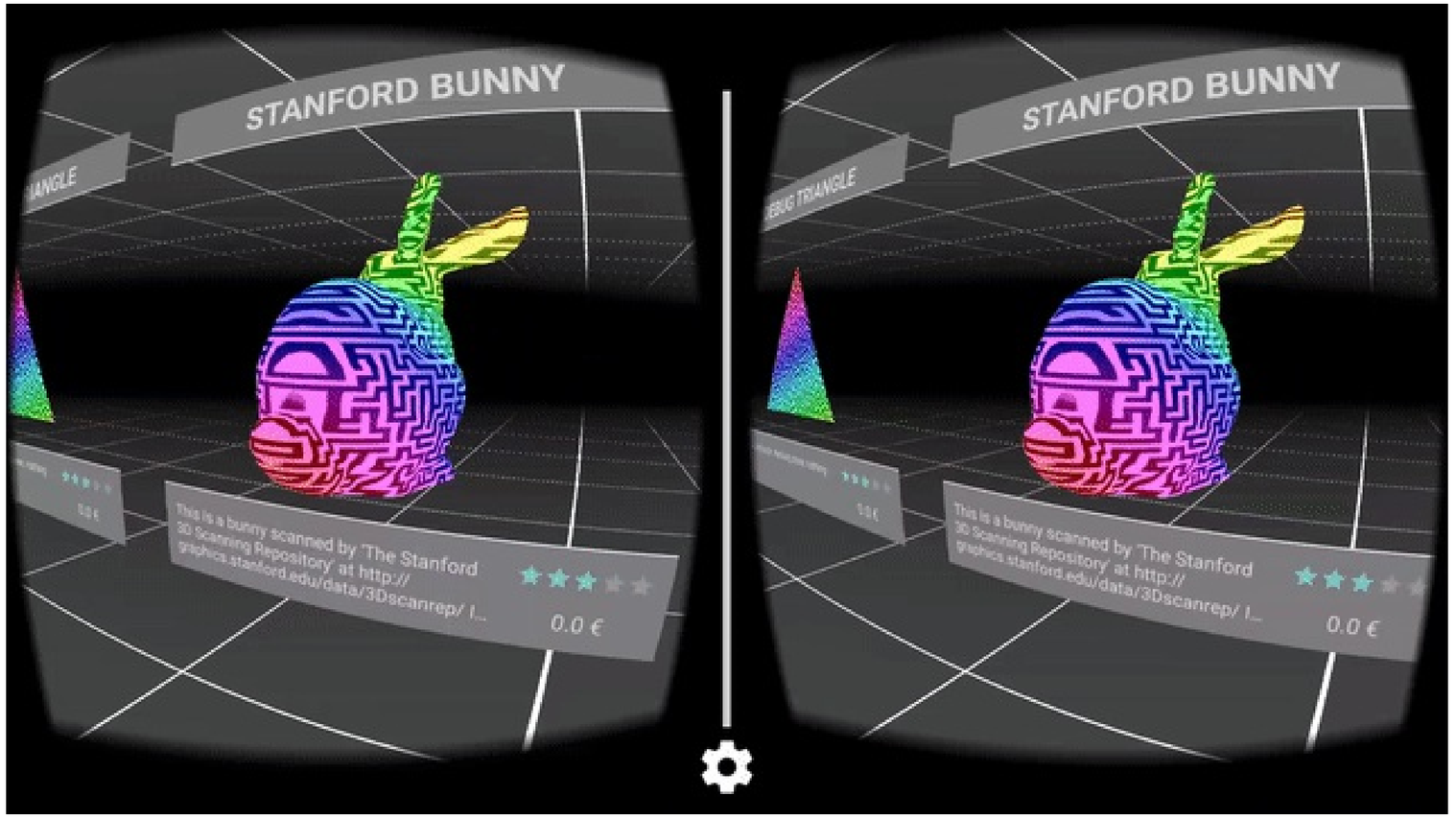
- easy to produce
- available from different companies
- in different styles/interactions
- You just need a phone™



🐦 @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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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?

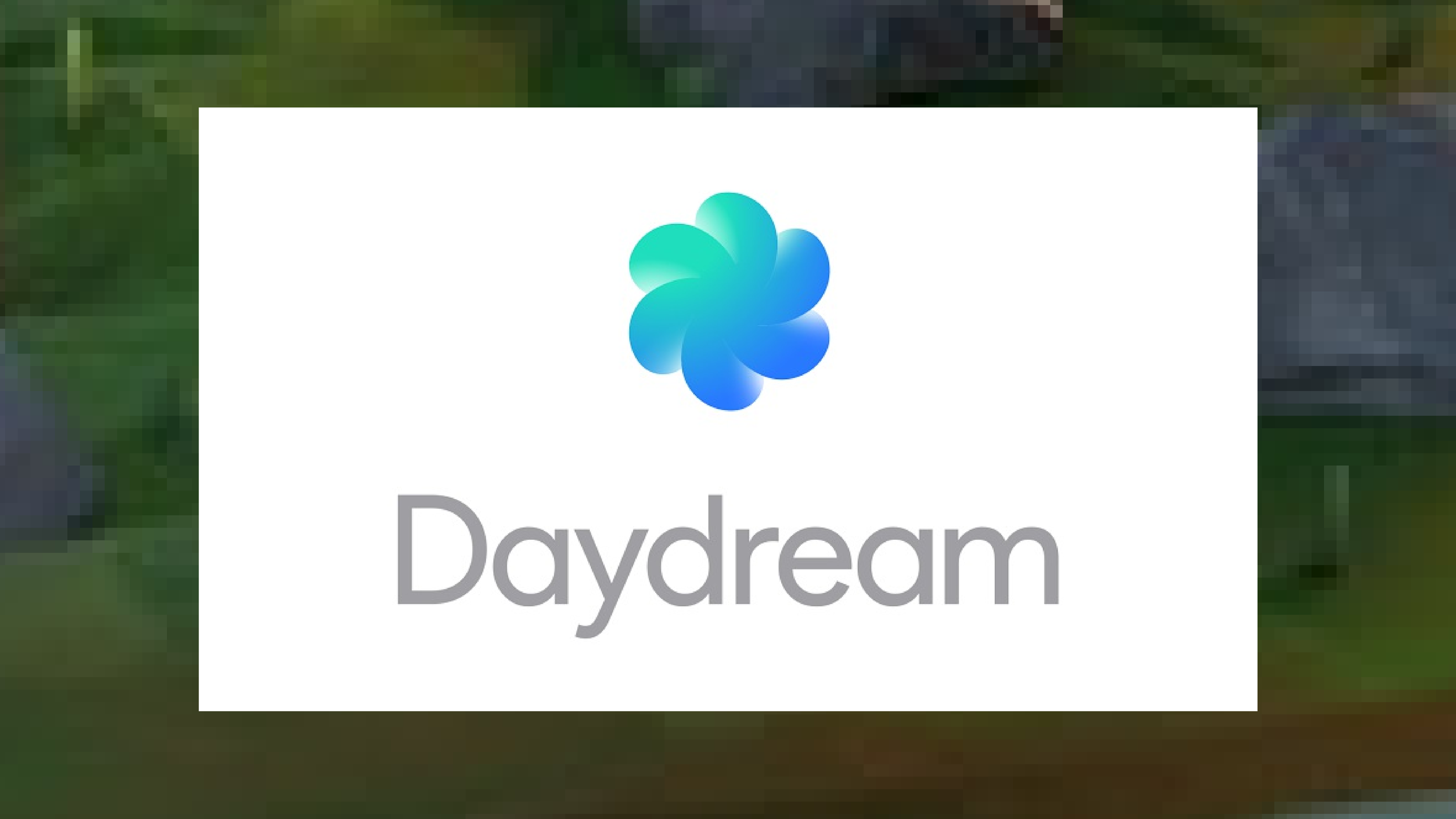
- `VrPanoramaView`/`VrVideoView`
  - integration of photospheres in view hierarchies
- integration with other (Java) libraries
- sending of Intents easily

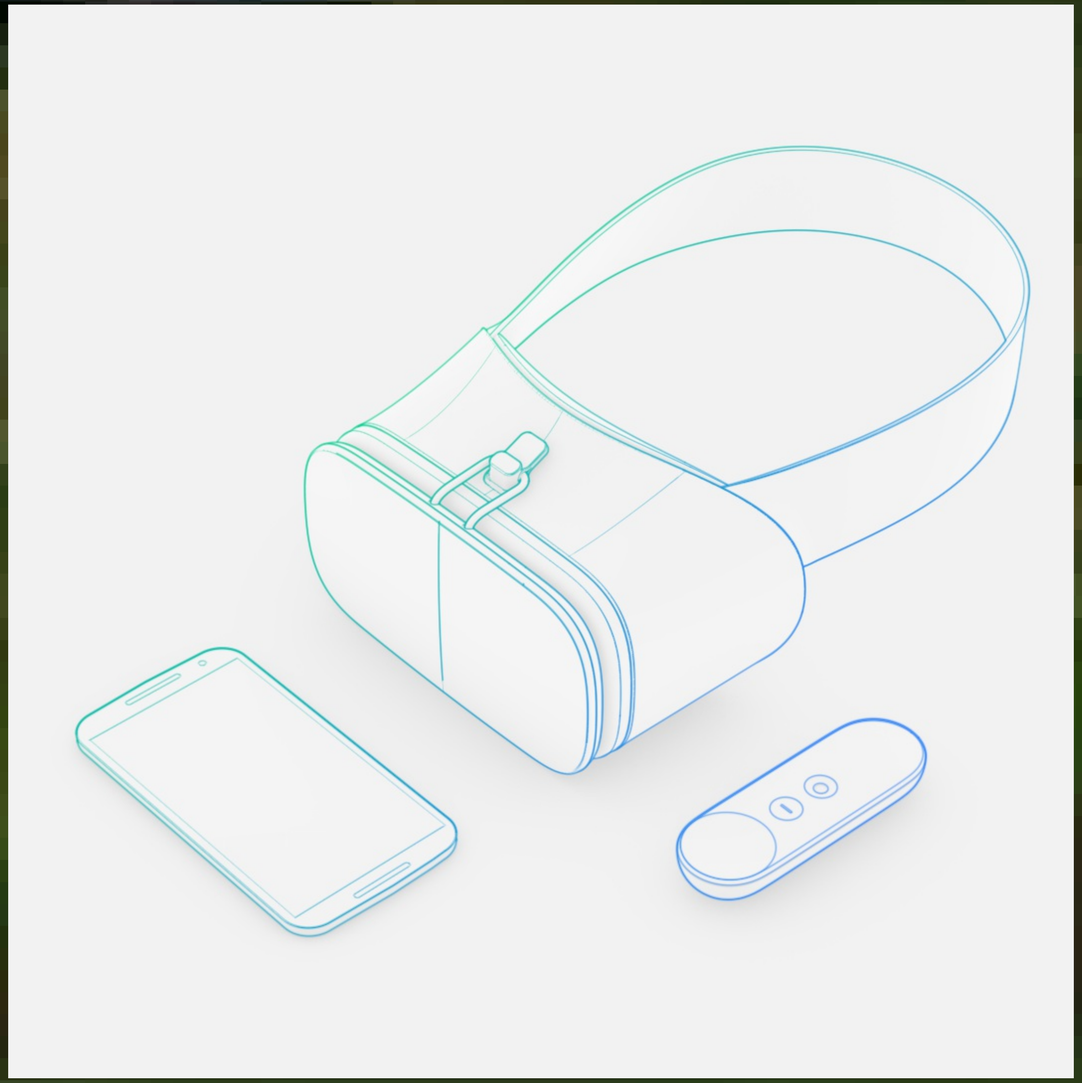
Limitations of Android SDK

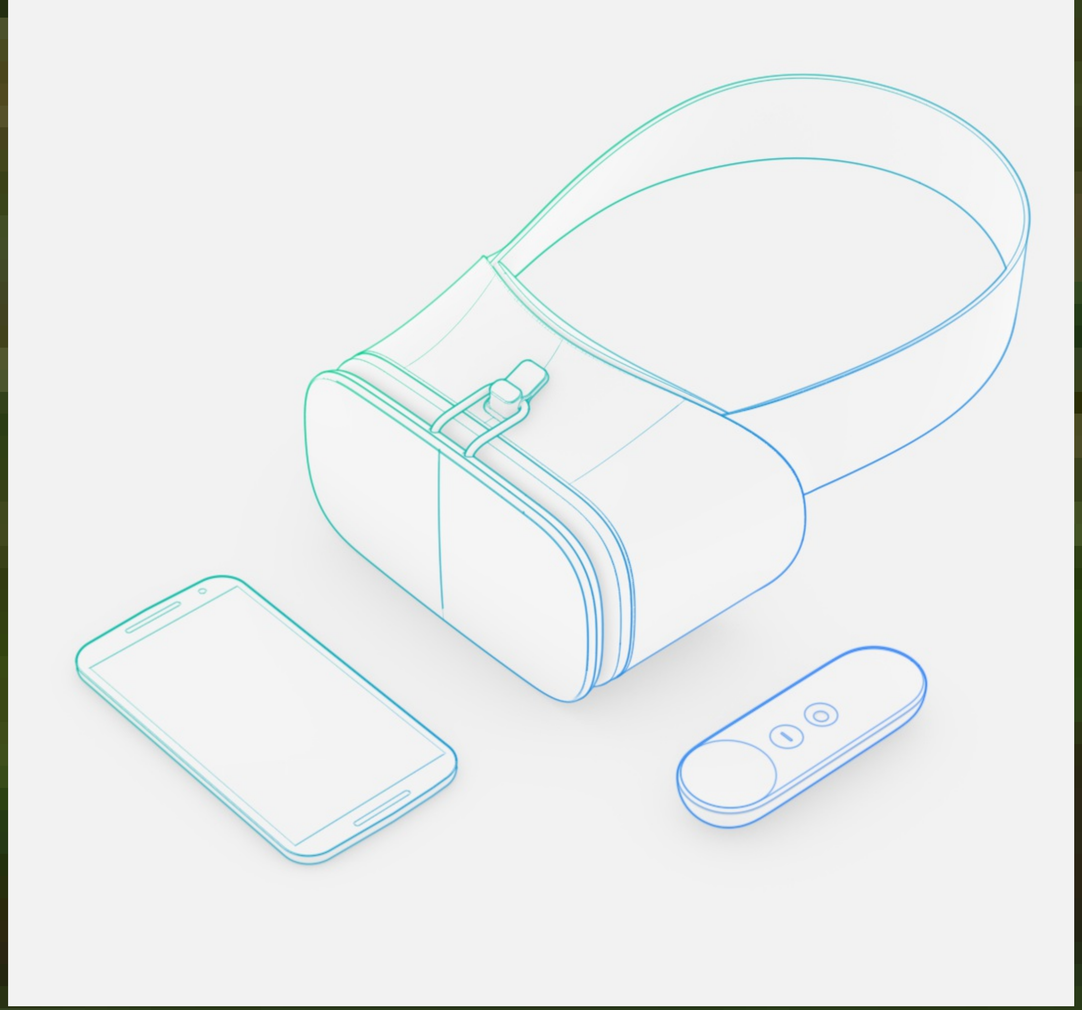
- using 3D models has to be done by
  - either low level OpenGL or
  - 3rd party 3d engine

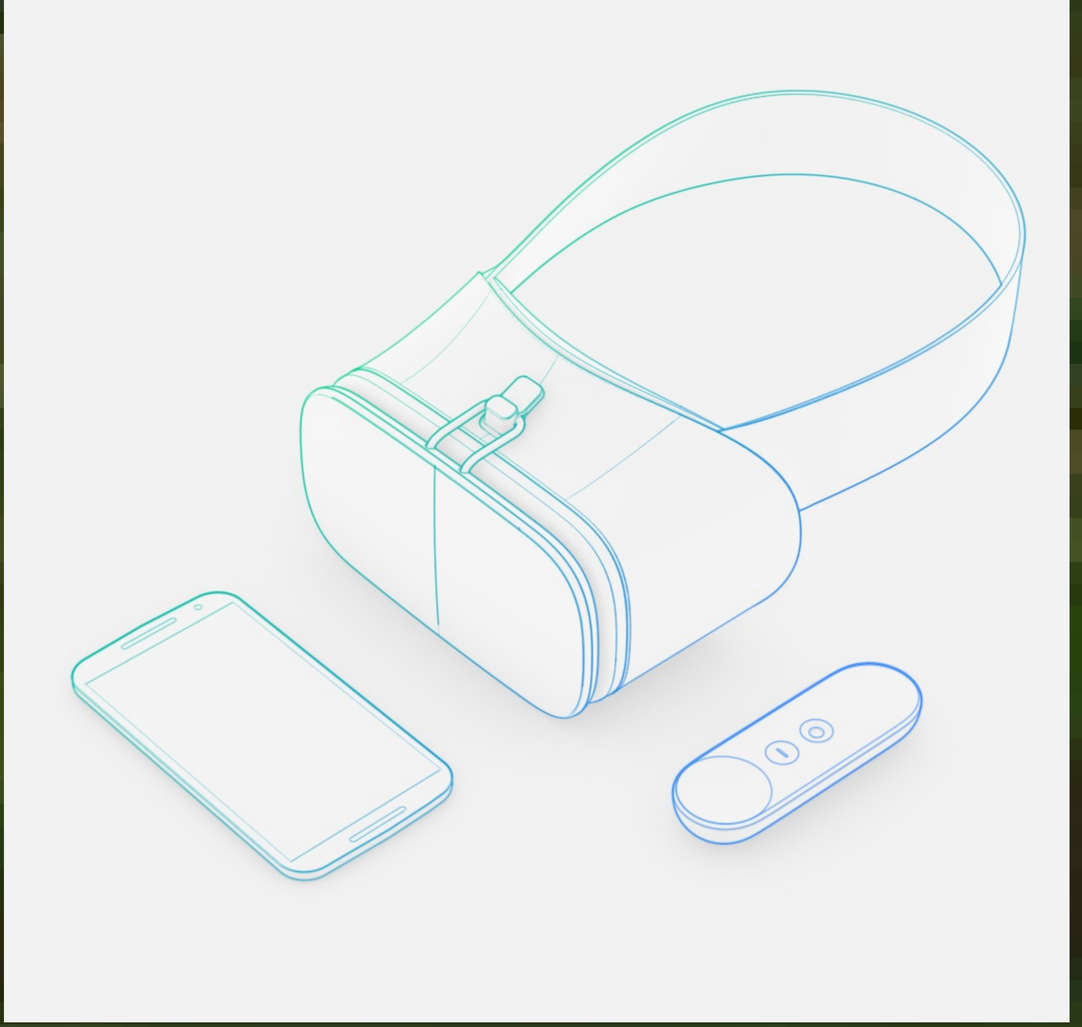
Adding Photospheres to a simple project

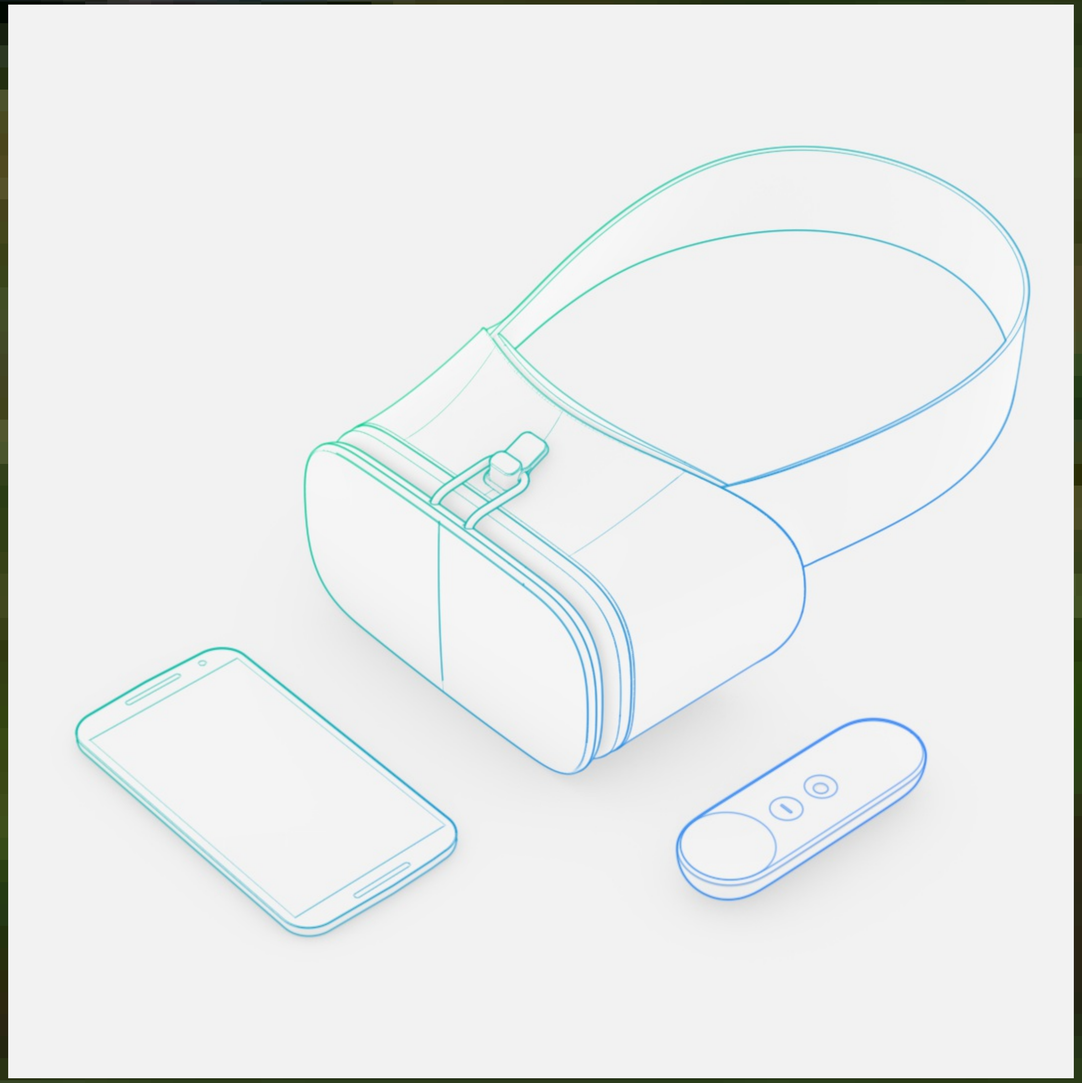
- demo


Daydream



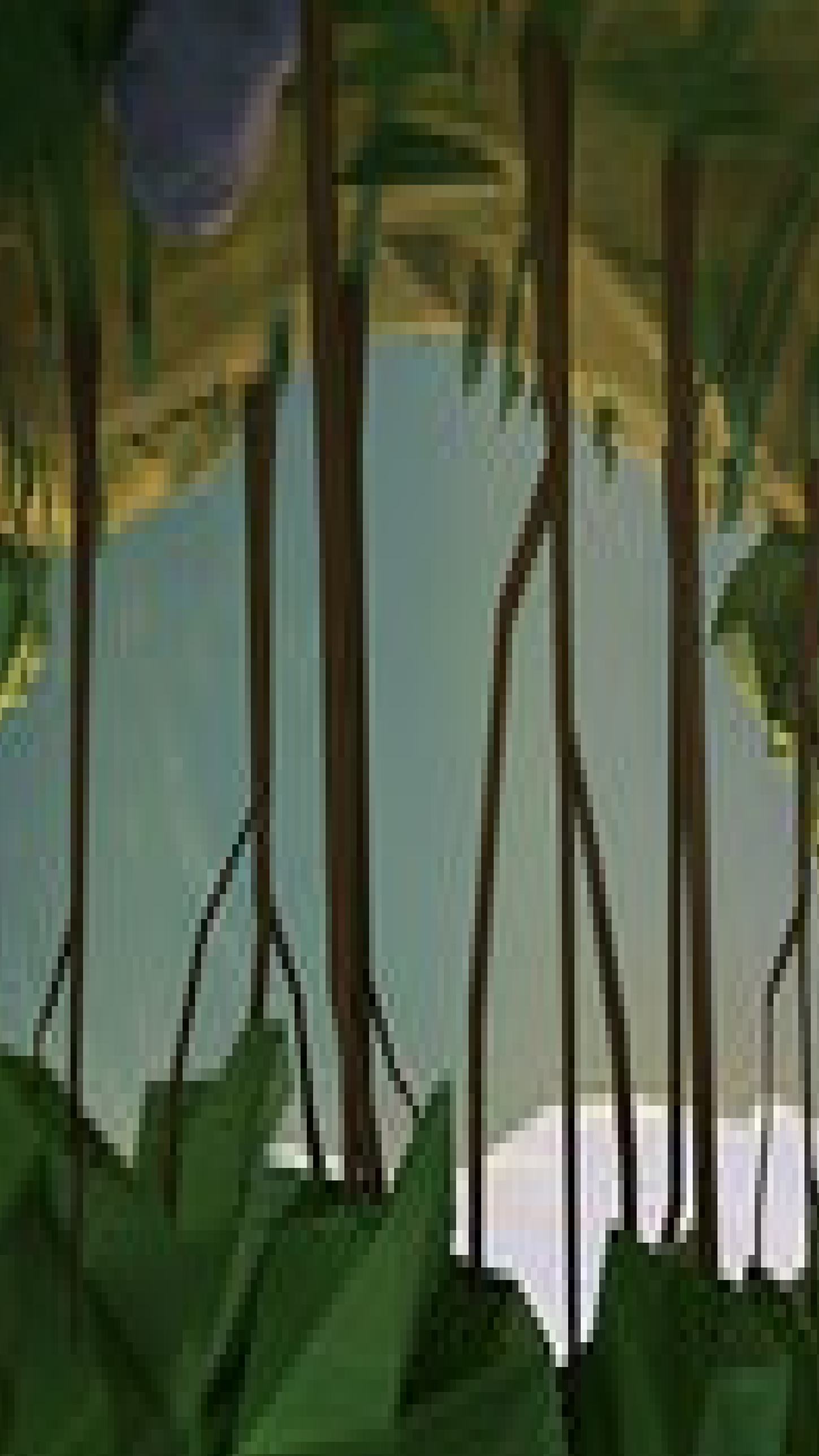






New SDK features

- 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*`