

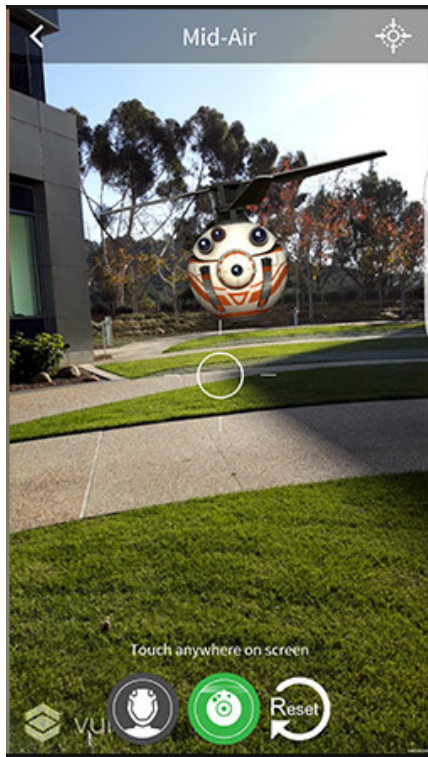
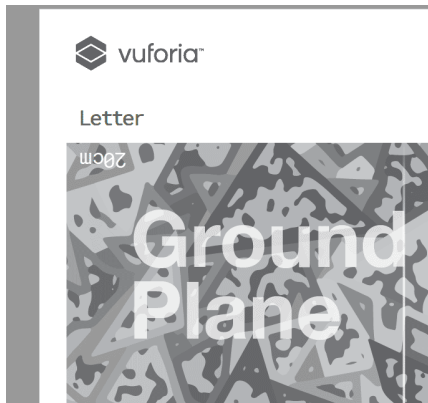
# Rethinking Vuforia



## **Creating AR**

Using Vuforia Native Integration

# Mid Air & Ground Plane (without target)



# Vuforia Fusion (enhanced slam & rendering)

## Vuforia Fusion

### Vuforia Engine

#### Objects



#### Environments



**Vuforia Fusion**

#### SLAM

Simultaneous Localization & Mapping

#### VIO

Visual-inertial Odometry

Android

ARCore

iOS

ARKit

Windows

MR

# Positional Device Tracking



Video: Positional Device Tracking - Vuforia vs. Android Native App

# Positional Device Tracking: HakArt (RAA2018)



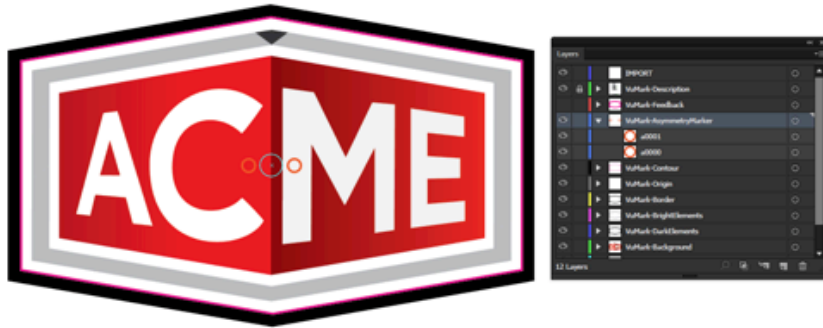
Video HakARt <https://www.youtube.com/watch?v=MYqkjbVgGVI>

# Cloud Recognition (from image target online)

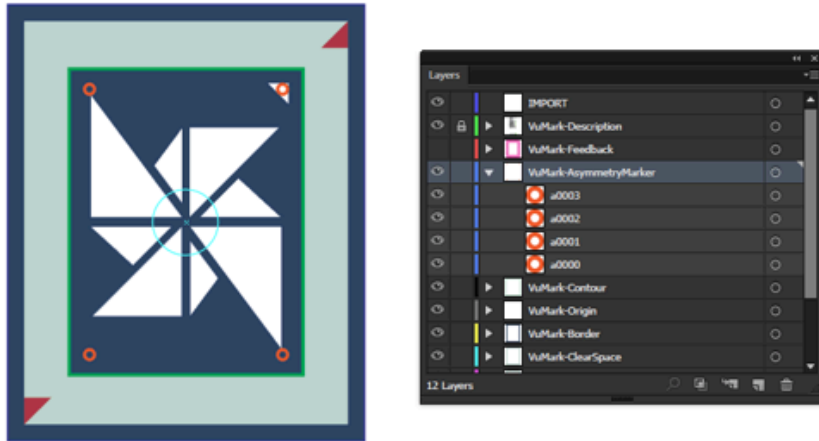


Video: Vuforia Cloud Recognition

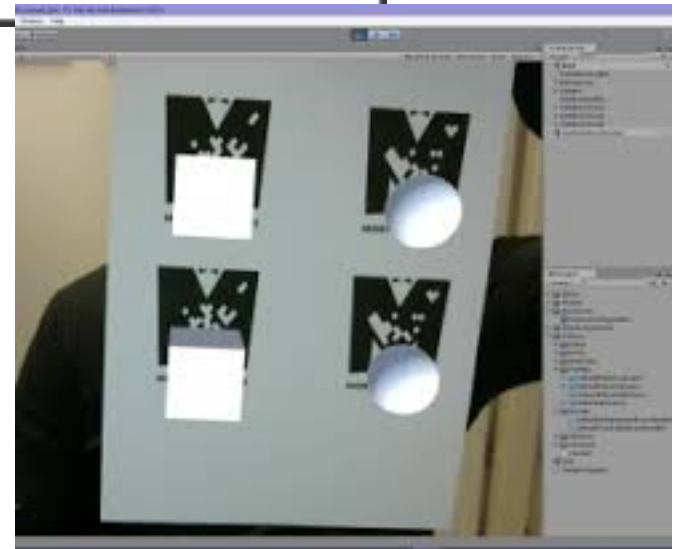
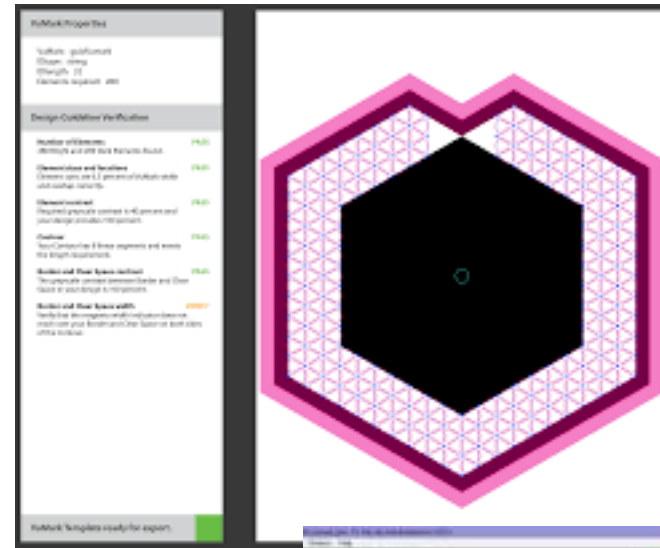
# VuMarks – data + id (an advanced version of qr-codes)



*Order 2 asymmetry marked up in ACME design*



*Order 4 asymmetry marked up in windmill design*



## VuMark design with Adobe Illustrator + example

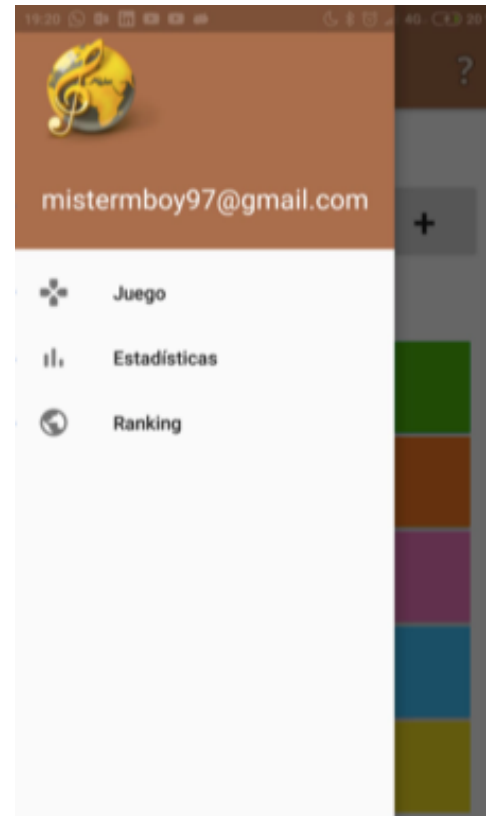
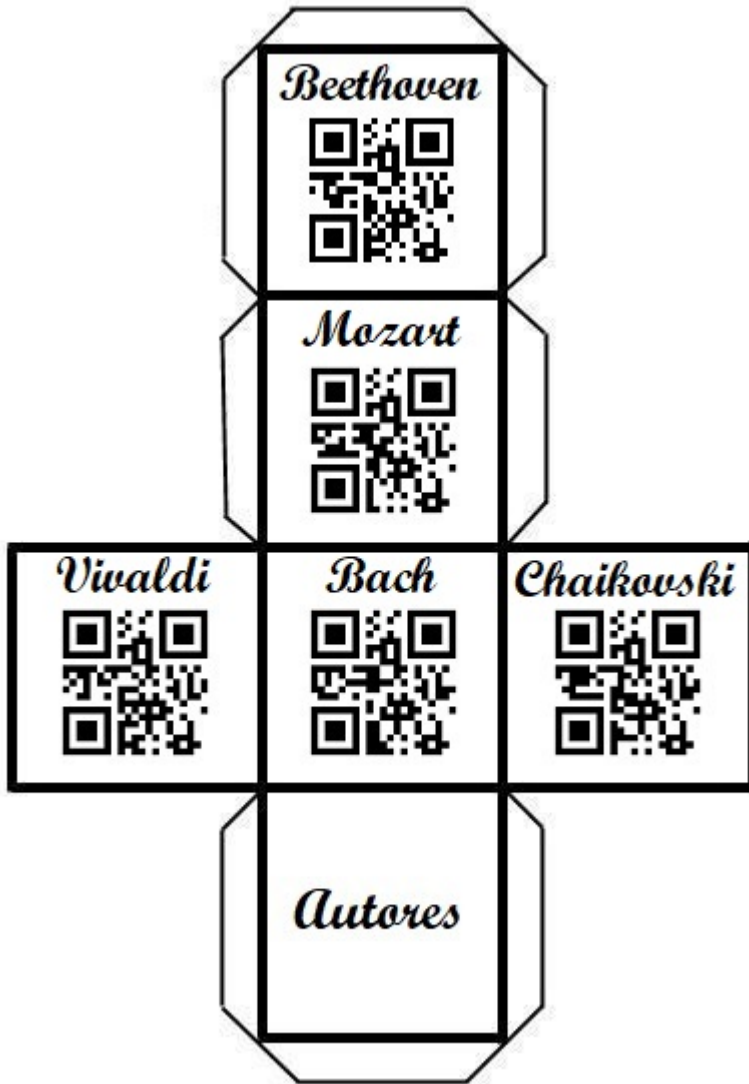
# User defined targets (from 2D image at runtime)



Video: Garage Dance – User defined target



# Cuboid (not multi-target): Interactive Cubes (RAA2018)



# Cuboid Multi-Target



Video: Vuforia Cube Learning / Multi-target

# Cylinder Targets

## Add Target

Type:



Single Image



Cuboid



Cylinder



3D Object

Dimension:

Bottom Diameter:

Top Diameter:

Side Length:

Side Length:

Enter the dimensions of your target in scene units. The size of your target shall be on the same scale as your augmented virtual content. If you enter '0' for the top or bottom diameter, your target will be cone shaped.



Video: AR Mug - 3D Sublimation + Unity + Vuforia

# Object Targets (from camera-scanned object)

## Add Target

### Type:



Single Image



Cuboid



Cylinder



3D Object

### File:

Choose File

Browse...

File must be Vuforia Object Scanner data. For more information, see the Vuforia Object Scanner Application.

Vuforia Object Scanner  
Apk available only  
for some Android phones



Video: Car toy object target

# Model Targets (from 3D models)

Object Targets detect based off the texture features of the object and need to be scanned in using our scanner tool. Model Targets detect based off the geometrical data of the target and require the 3D/CAD model of the object.



Video: Motorbike toy model target