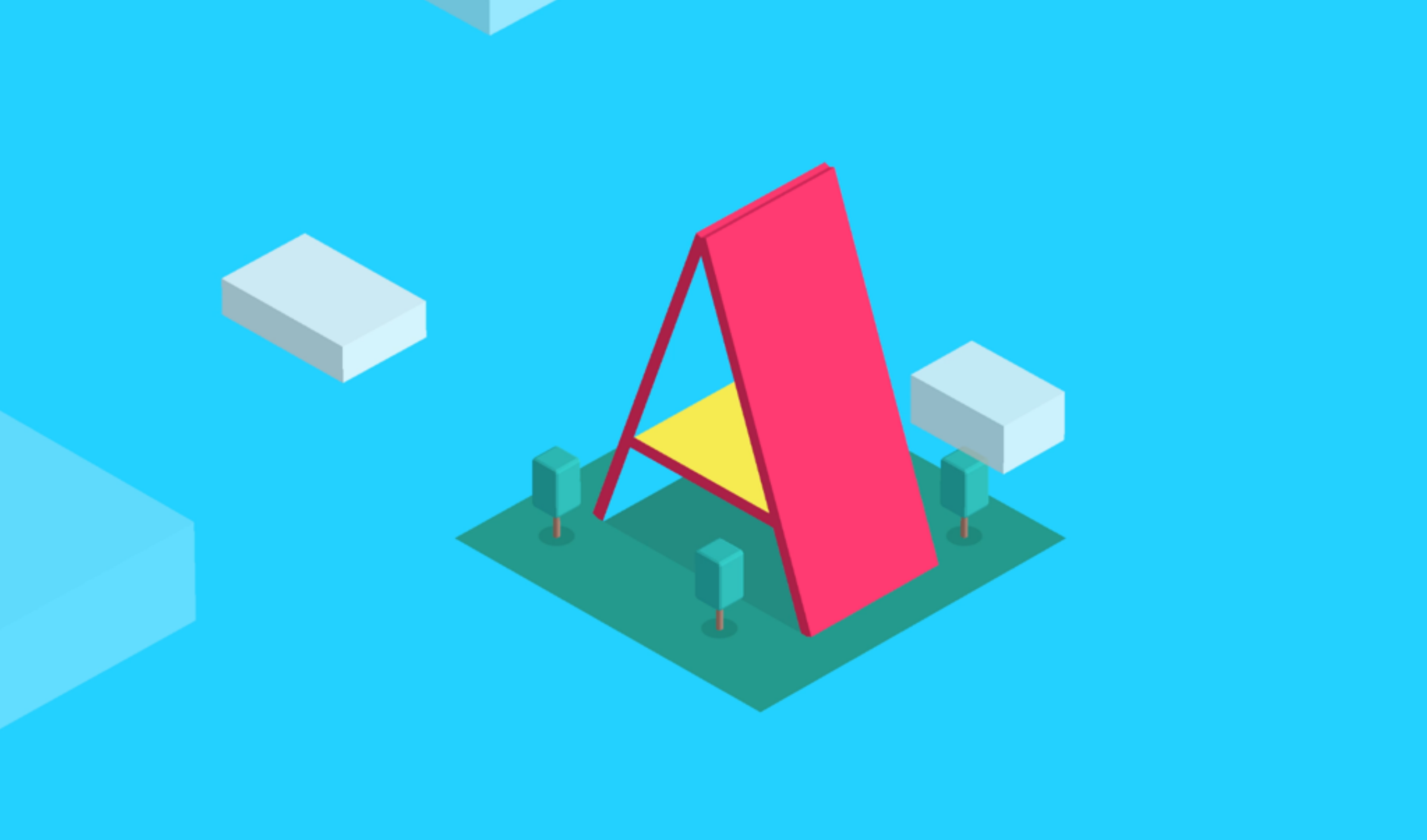




# A-FRAME

Bringing VR to Web Developers

@andgokevin / @dmarcos / aframe.io  
SFHTML5 / 25 May 2016



A-Frame

Community

Experiments

```

24 opacity: .6;
25 float: right;
26 text-decoration: none;
27 }
28 a: hover{
29 color: #fff;
30 opacity: 1;
31 text-decoration: none;
32 }
33 a img{
34 width: 35px;
35 height: 35px;
36 }
37
38

```

Import WebVR Polyfill

Set up Camera

Geometry + Material + Add

Build UI for Entering VR

Initialize scene

Too hard to create WebVR experiences.

```

46 <a target="_blank" href="http://twitter.com/share?text=Touch%20the%20Rainbow%20Membrane%20with%20%23Web
%20and%20@LeapMotion%20(%20Code%20by%20@Cabbibo%20)&url=http://cabbibo/RainbowMembrane"></a></br></br></br>
47 <a href="http://www.leapmotion.com/">LEAP VR</a></br>
48 <a href="http://cabbibo.com/">CABBIBO</a></br>
49 <a href="https://www.leapmotion.com/">LEAP MOTION</a>
50 </div>
51
52 <script src = "lib/leap.min.js" ></script>
53 <script src = "lib/three.min.js" ></script>
54 <script src = "lib/underscore.js" ></script>
55 <script src = "lib/jquery.min.js" ></script>
56 <script src = "lib/TrackballControls.js" ></script>
57 <script src = "lib/orbitControls.js" ></script>
58 <script src = "lib/SubdivisionModifier.js" ></script>
59 <script src = "lib/PhysicsRenderer.js" ></script>
60
61 <script src = "lib/VREffect.js" ></script>

```

Hook up VREffect

Create render loop

Listen to window resize

Add lighting

Instantiate renderer

Declare canvas

<a-scene>

<a-box src="texture.png" width="5">

<a-obj-model src="fox.obj">

<a-sky src="360-image.png">

<a-box src="texture.png" width="5">

<a-obj-model src="front.obj"> Not powerful enough.

<a-sky src="360-image.png">





Escape hatches for extensibility.

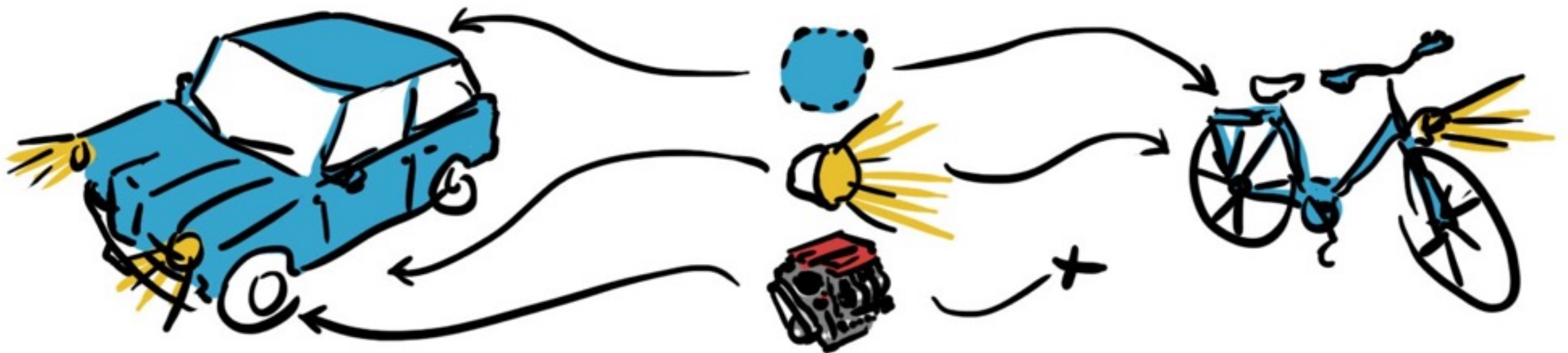
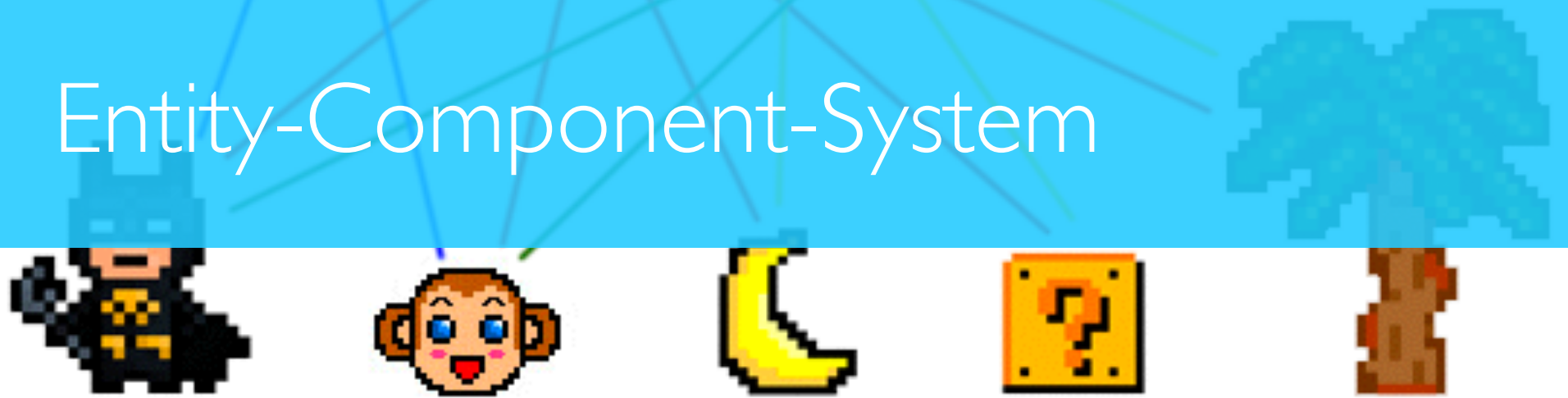


COMPONENTS



Entity-Component-System

ENTITIES





# COMPOSING AN ENTITY

<a-entity>

# COMPOSING AN ENTITY

```
<a-entity geometry="primitive: sphere; radius: 100"  
            material="color: skyblue">
```

# COMPOSING AN ENTITY

```
<a-entity geometry="primitive: sphere; radius: 100"  
            material="color: skyblue"  
            entity-generator="mixin: rain; num: 300">
```

# COMPOSING AN ENTITY

```
<a-entity geometry="primitive: sphere; radius: 100"  
           material="color: skyblue"  
           entity-generator="mixin: rain; num: 100">
```

```
<a-mixin id="rain"  
        geometry="primitive: sphere; radius: 0.05"  
        material="color: white; opacity: 0.5">
```



# COMPOSING AN ENTITY

```
<a-entity geometry="primitive: sphere; radius: 100"  
            material="color: skyblue"  
            entity-generator="mixin: rain; num: 100">
```

```
<a-mixin id="rain"  
        geometry="primitive: sphere; radius: 0.05"  
        material="color: white; opacity: 0.5"  
        event-set="_event: collide; explode: true">
```

# COMPOSING AN ENTITY

```
<a-entity geometry="primitive: sphere; radius: 100"  
           material="color: skyblue"  
           entity-generator="mixin: rain; num: 100">
```

```
<a-mixin id="rain"  
        geometry="primitive: sphere; radius: 0.05"  
        material="color: white; opacity: 0.5"  
        event-set="_event: collide; explode: true"  
        random-position="min: -10 50 -10;  
                        max: 10 80 10">
```

# COMPOSING AN ENTITY

```
<a-entity geometry="primitive: sphere; radius: 100"  
           material="color: skyblue"  
           entity-generator="mixin: rain; num: 100">
```

```
<a-mixin id="rain"  
        geometry="primitive: sphere; radius: 0.05"  
        material="color: white; opacity: 0.5"  
        event-set="_event: collide; explode: true"  
        random-position="min: -10 50 -10;  
                        max: 10 80 10"  
        template="src: #rain-animation">
```



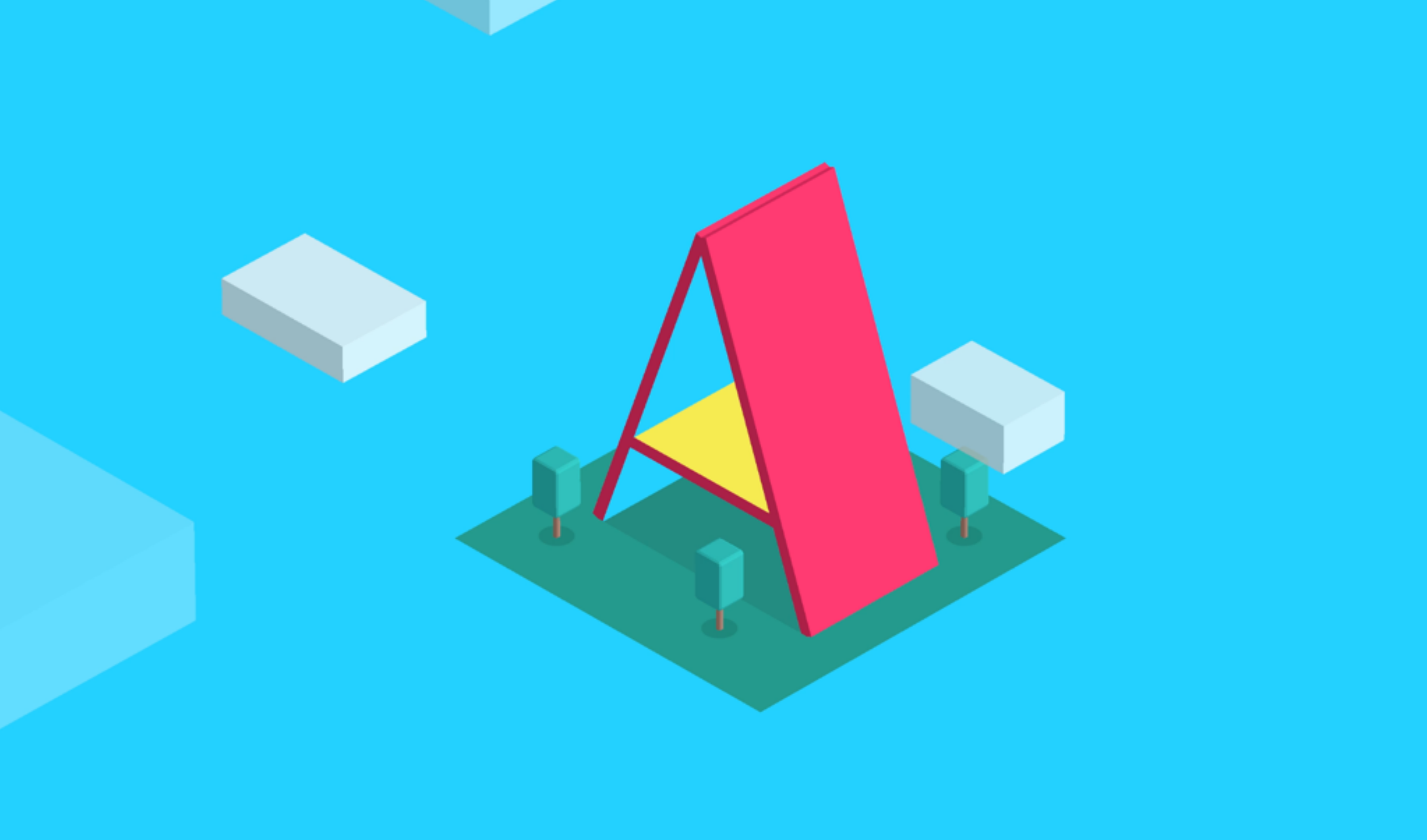


Reduces boilerplate

Familiar for web developers and designers

Declarative ECS framework for three.js





A-Frame

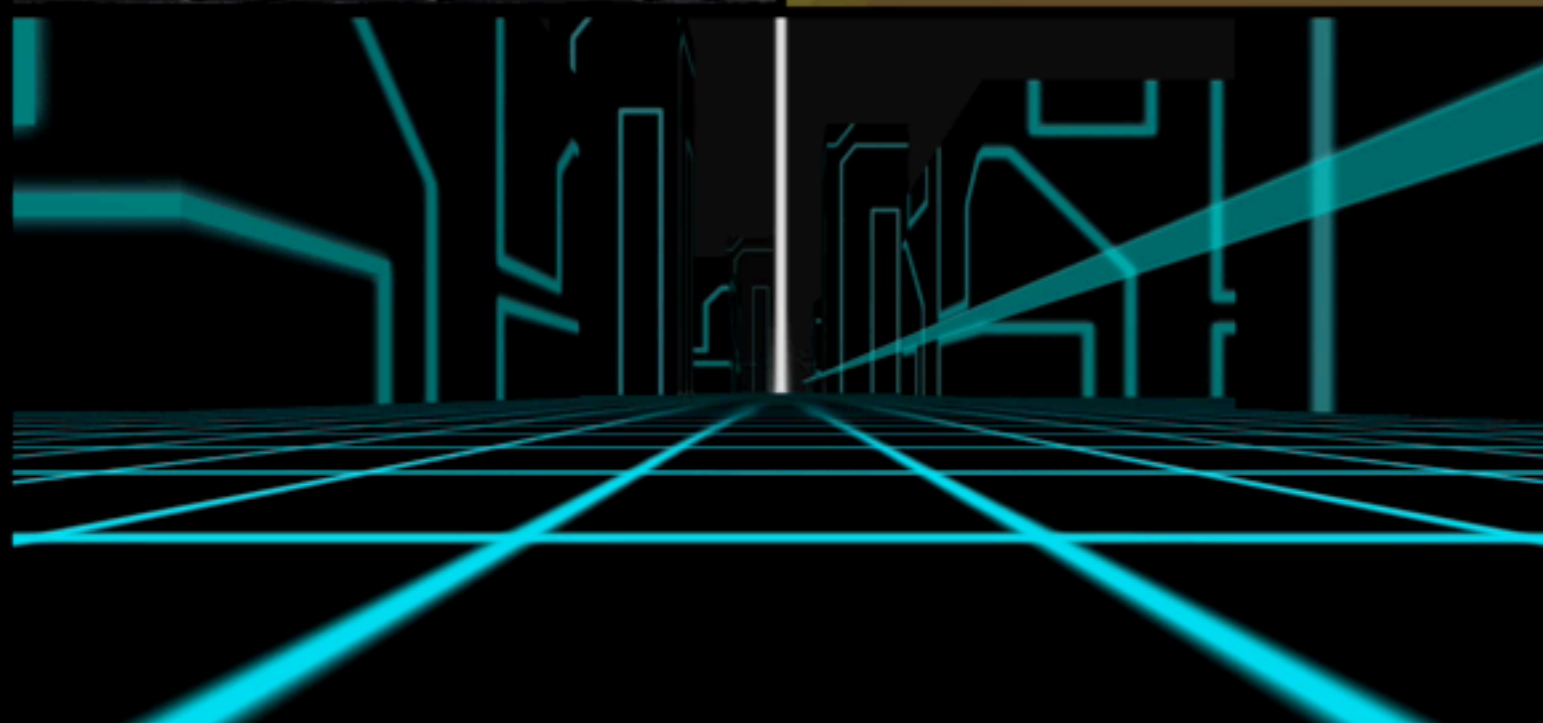
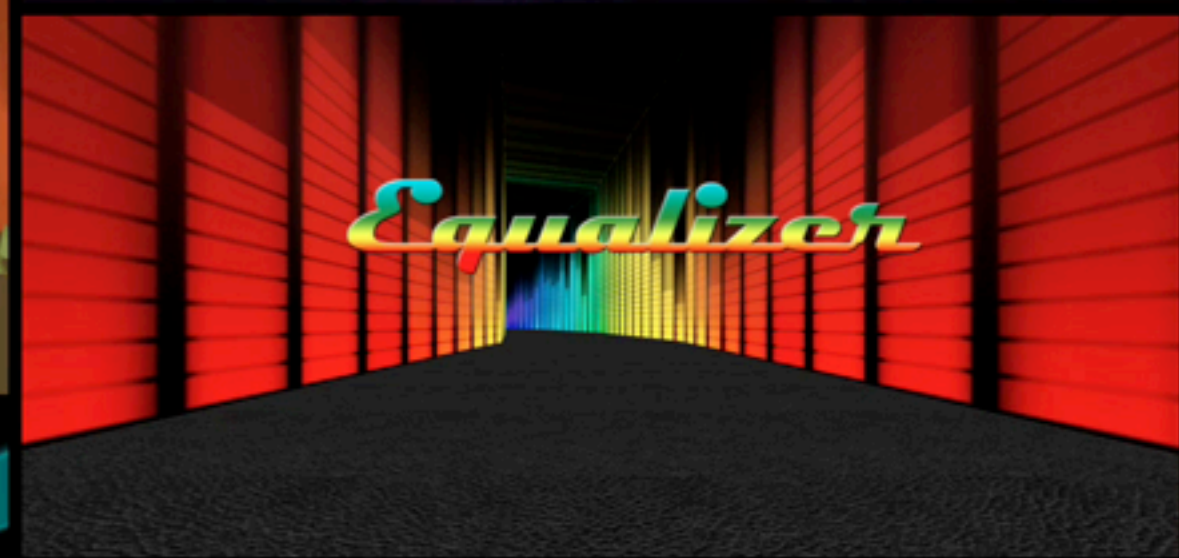
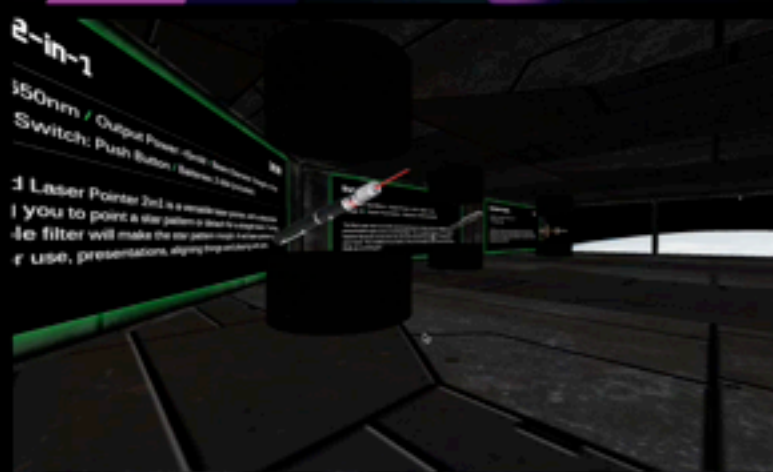
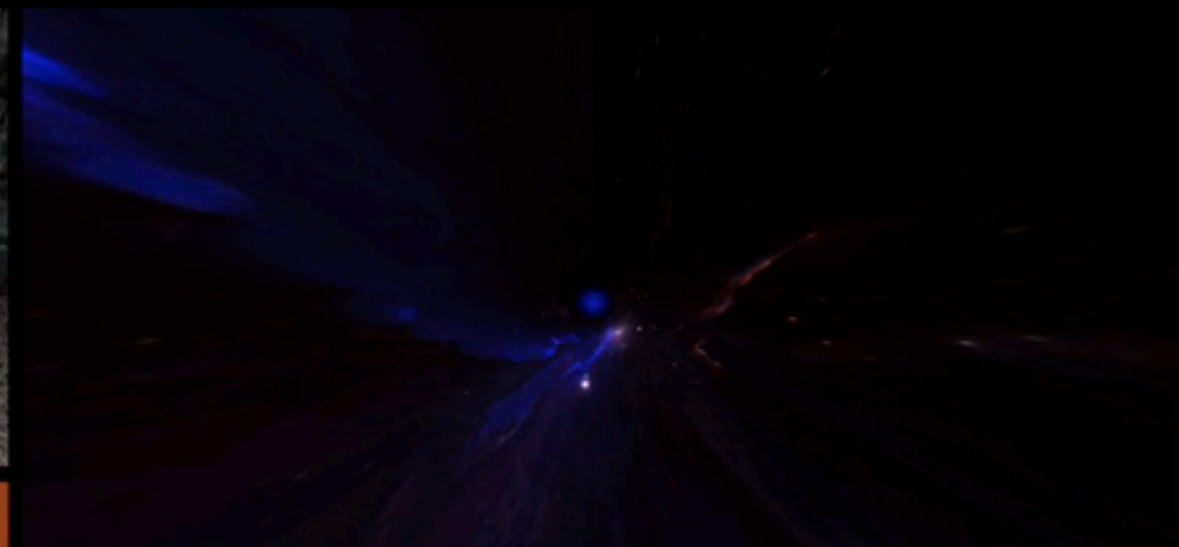
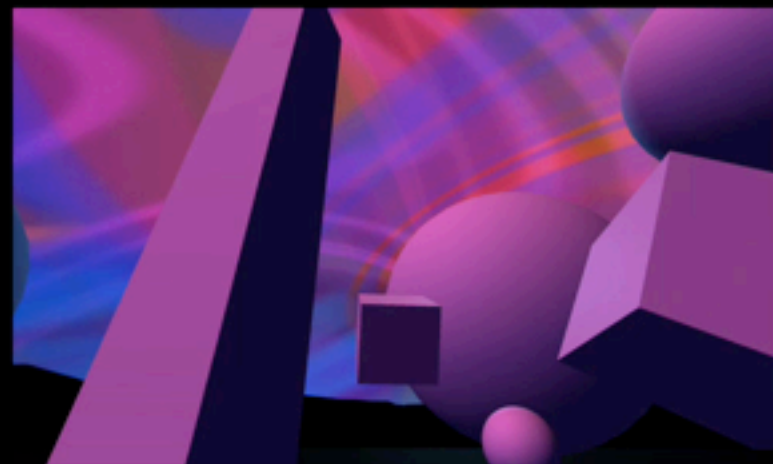
Community

Experiments

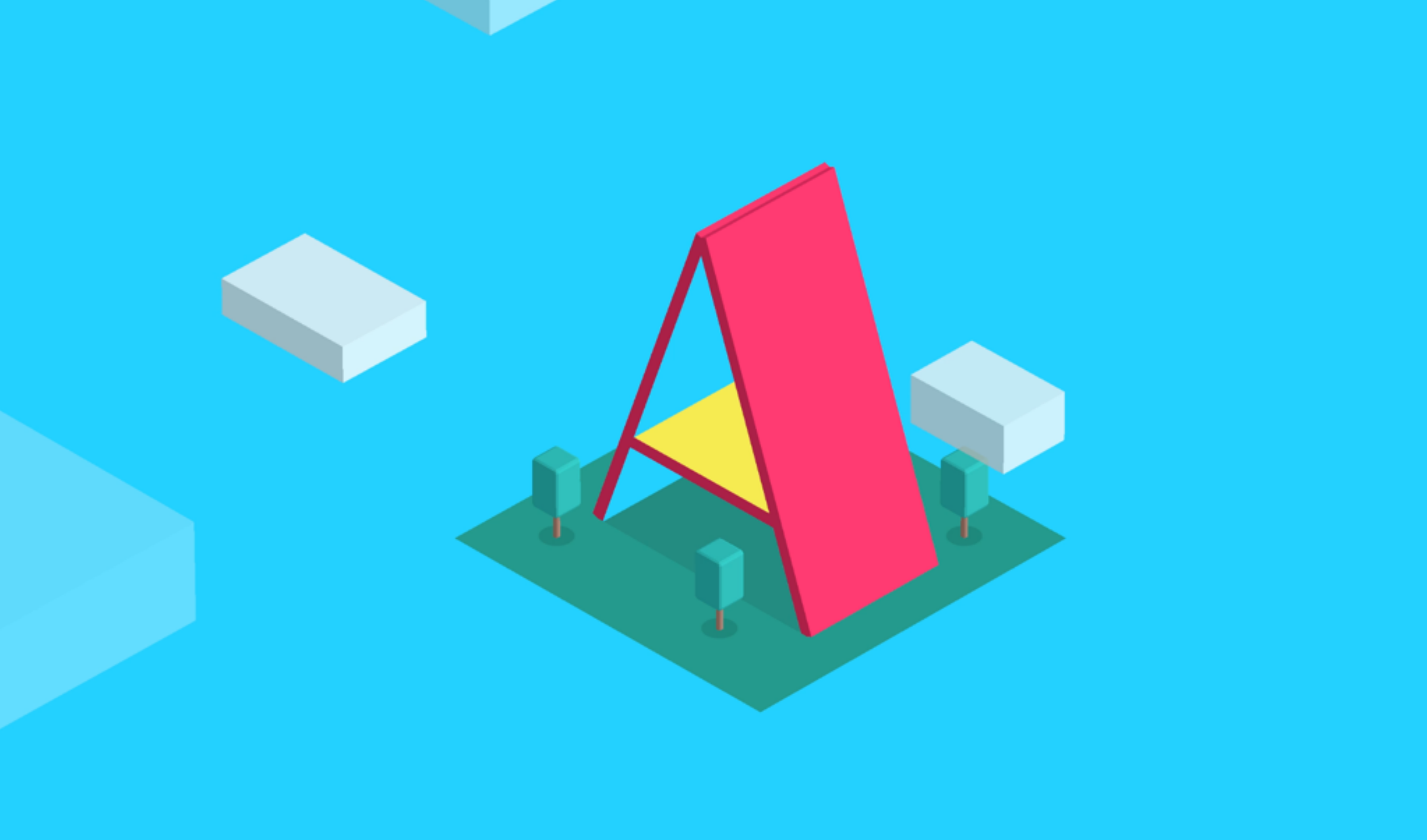
position rotation  
controls scale light material  
fog geometry sound  
text obj-model collada-model

explode **aframe-react** look-at selectable **altspace**  
no-click-look-controls gif-shader draw noise  
orbit-controls hud mouse-cursor html-shader  
crease meshline firebase audio-visualization  
template physics layout along-path randomizer  
lazy-load position rotation leap-motion-controls  
text controls scale light material  
lathe-geometry fog geometry sound gamepad-controls  
gltf collider text obj-model collada-model fbx  
**aframe-meteor** proxy-controls extrude-geometry follow  
stereo fence href entity-generator ocean  
fit-texture interpolation mesh-line grid-helper draggable  
universal-controls aframe-extras **d3**





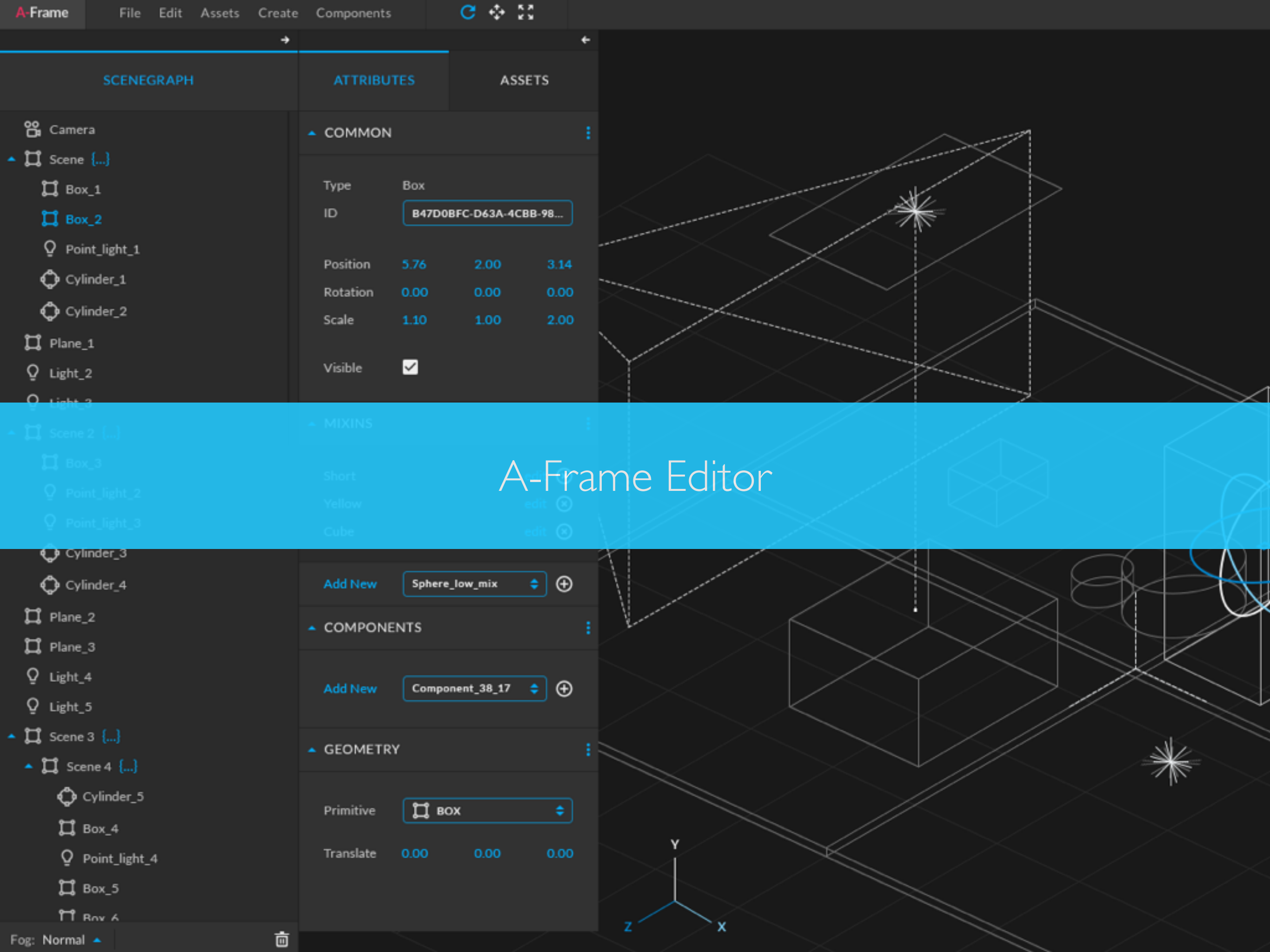




A-Frame

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Experiments



# A-Frame Editor

[WIKIPEDIA]

[MULTIUSER]



[ROOMSCALE]

[LOCAL MULTIPLAYER]