

NETWORKED-AFRAME

Social VR on the web

Hayden Lee

OVERVIEW

- Stack: A-Frame / Networked-Aframe / Mozilla Hubs
-
- Networked-Aframe 101
-
- Getting started

WEBVR

An open standard for viewing virtual reality experiences in your web browser.

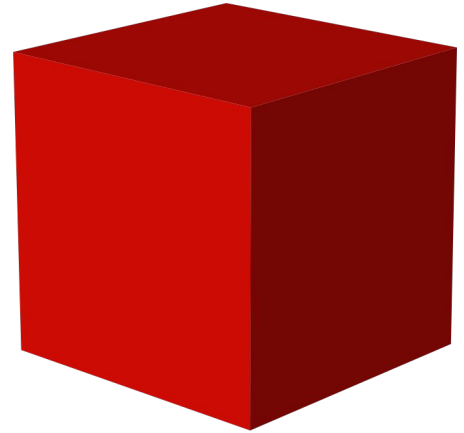
- Plug in your VR headset
- Go to a WebVR website
- View VR
- **No gatekeepers**
- **No installs**



A-FRAME

A web framework for building virtual reality experiences. Make WebVR with HTML and an entity-component system. Works on Vive, Rift, non-VR, mobile VR platforms... etc etc

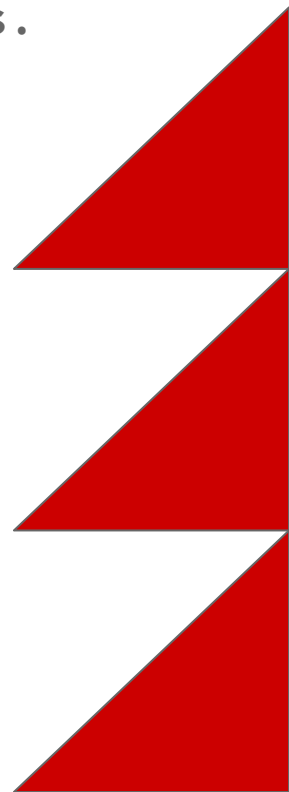
```
<a-box color="red"></a-box>
```



NETWORKED-AFRAME...

A framework for making **multiplayer A-Frame experiences**.

- Supports multiple networking architectures
- Cross-platform
- Data streaming
- Voice streaming (and video streaming)
- Extendable
- Open-source
- Primarily works via state synchronization



NETWORKED-AFRAME

EASY MULTIPLAYER VR

Dan

Janis

Cherry

Maciej

Ludmilla

dianetar

hubs by Mozilla

A WebVR experiment from Mozilla Mixed Reality

moz://a



WHAT IS IT GOOD FOR? ABSOLUTELY SOME THINGS

GOOD FOR

- Social VR
- “Lite” games
- Creative experiences

BAD FOR

- Competitive games
- When you care about cheaters

WHAT IS IT GOOD FOR? ABSOLUTELY SOME THINGS

GOOD FOR



BAD FOR

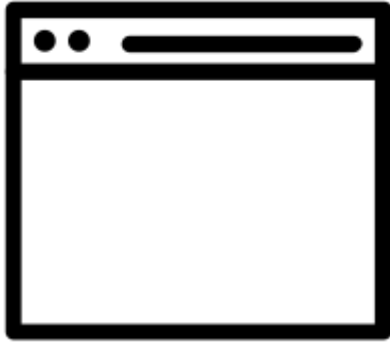


WHY DOES THIS EXIST?

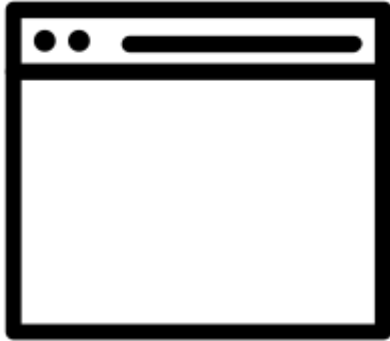
Networked-Aframe handles the following concepts for you:

- Rooms
- Connections
- Local vs remote templates
- Syncing players

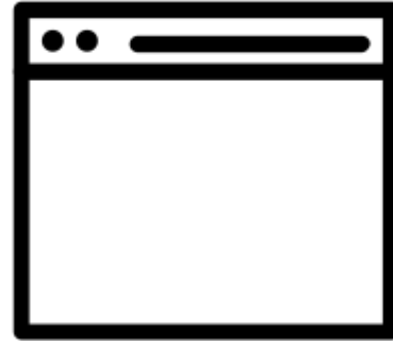
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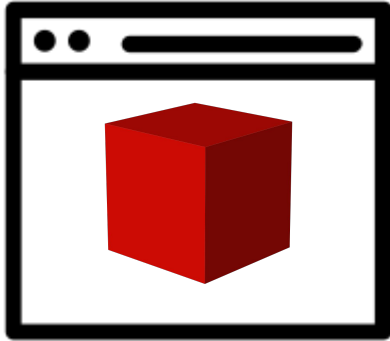
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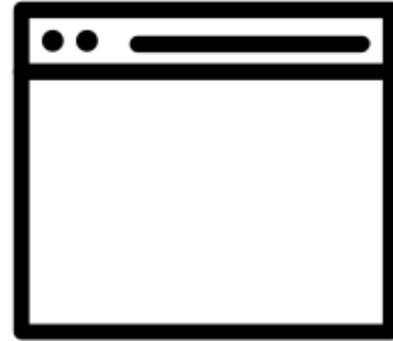
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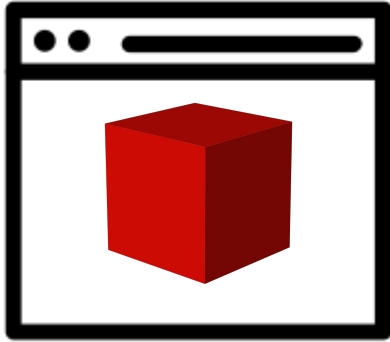
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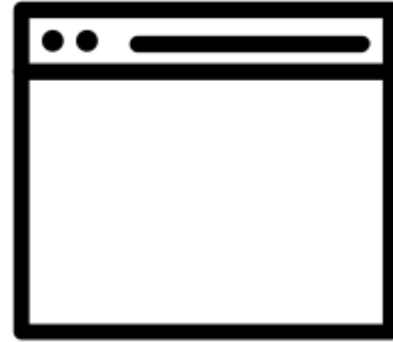
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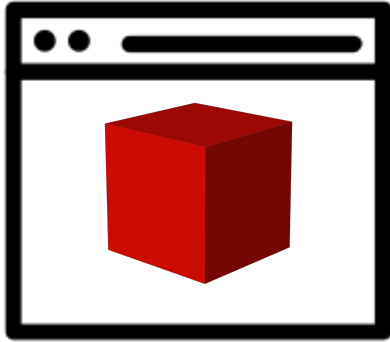
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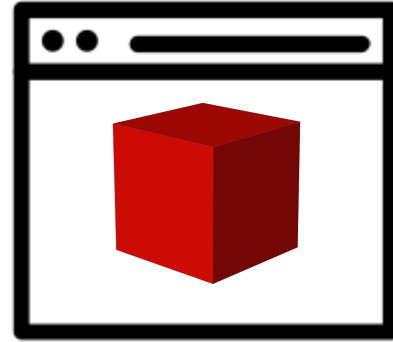
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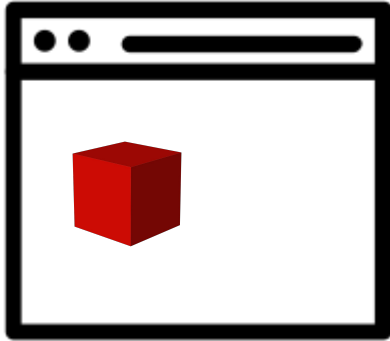
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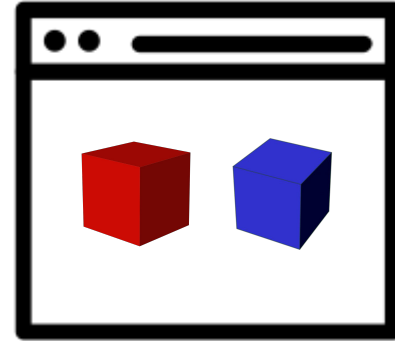
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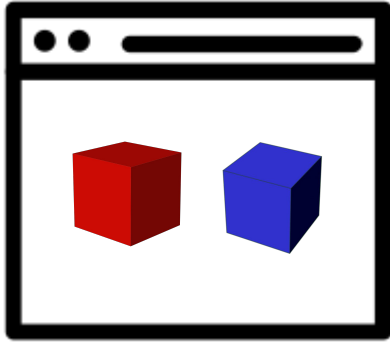
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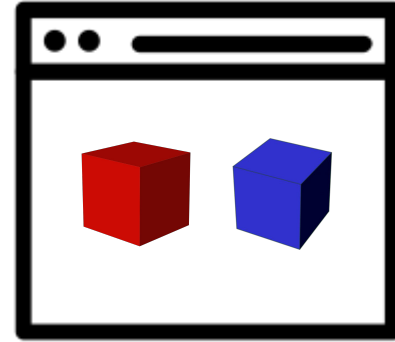
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YOUR BROWSER

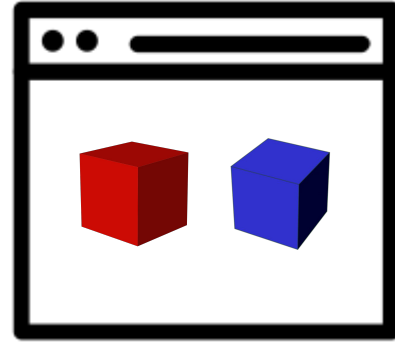
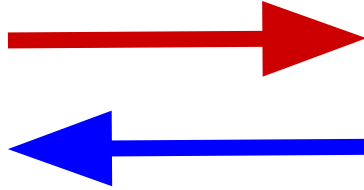
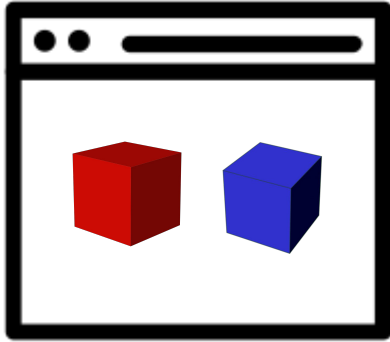


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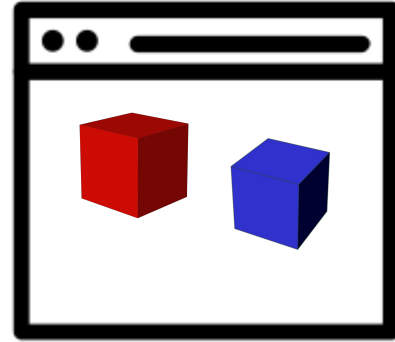
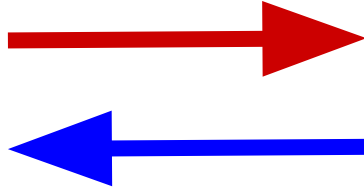
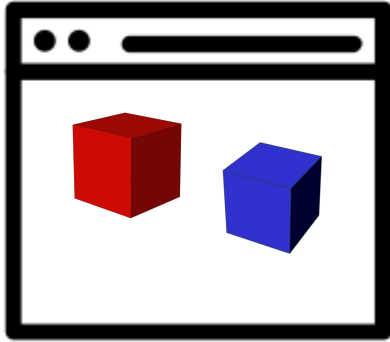
YOUR BROWSER

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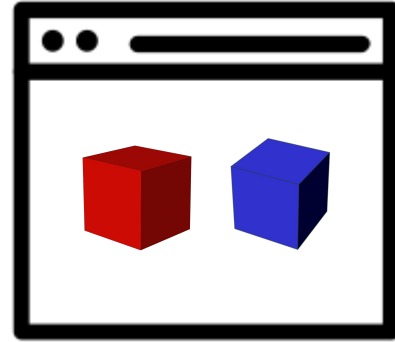
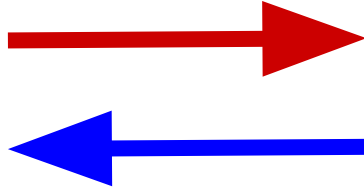
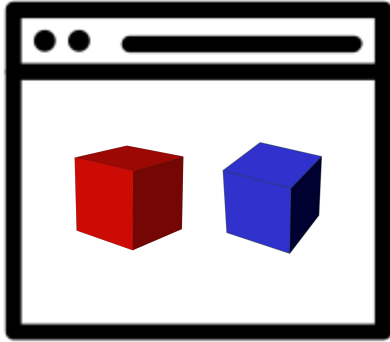
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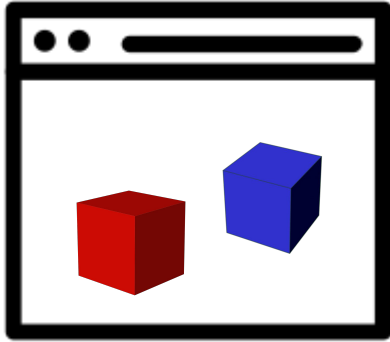


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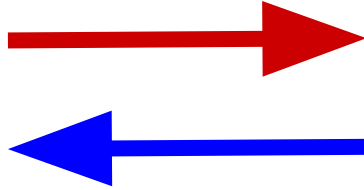
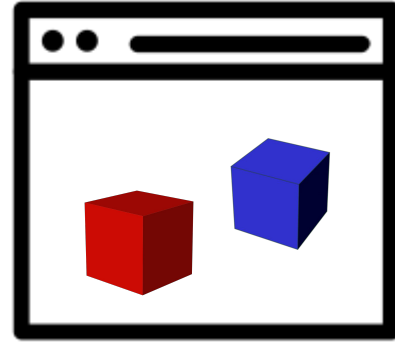
FRIEND'S BROWSER



YOUR BROWSER



FRIEND'S BROWSER



TWO NEW A-FRAME COMPONENTS

```
<a-scene networked-scene="..."></a-scene>
```

```
<a-entity networked="..."></a-entity>
```

`<a-scene networked-scene="`

`app: your-app-name;`

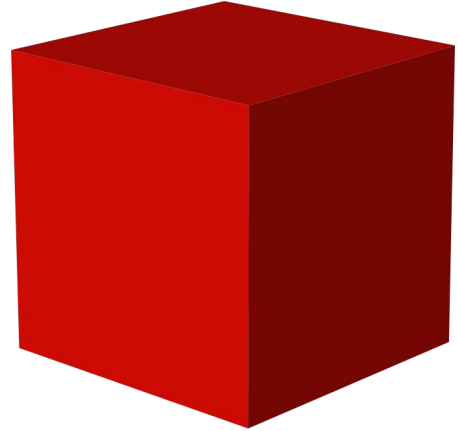
`room: this-room-name;`

`audio: true/false;`

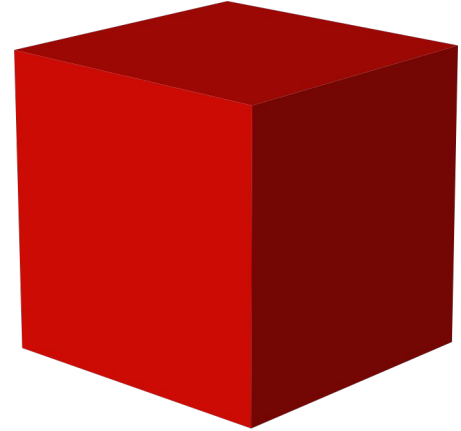
`debug: true;`

`">...</a-scene>`

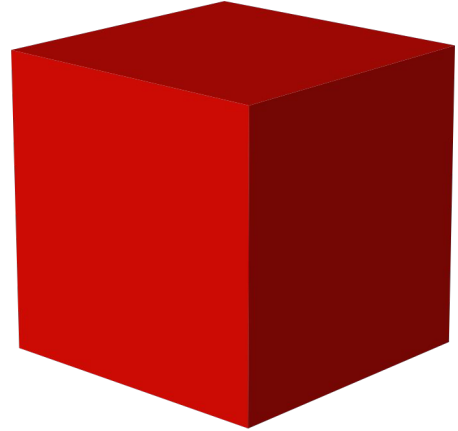

```
<a-assets>
  <template id="box-1">
    <a-box color="red"></a-box>
  </template>
</a-assets>
...
<a-entity networked=
  template: #box-1;
"></a-entity>
```



```
<a-assets>  
  <template id="box-1">  
    <a-box color="red"></a-box>  
  </template>  
</a-assets>  
...  
<a-entity networked="  
  template: #box-1;  
"></a-entity>
```



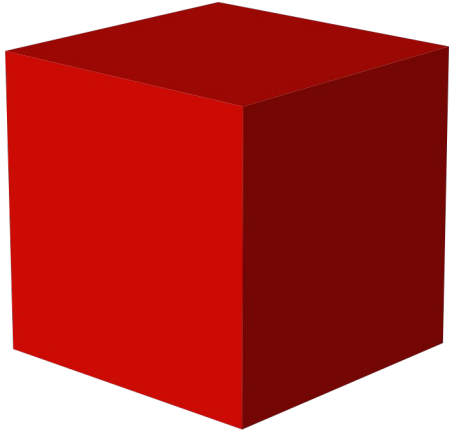
```
<a-assets>  
  <template id="box-1">  
    <a-box color="red"></a-box>  
  </template>  
</a-assets>  
...  
<a-entity networked="  
  template: #box-1;  
"></a-entity>
```



```
<a-entity
```

```
  networked="template: #box-1;" position="0 0 0"
```

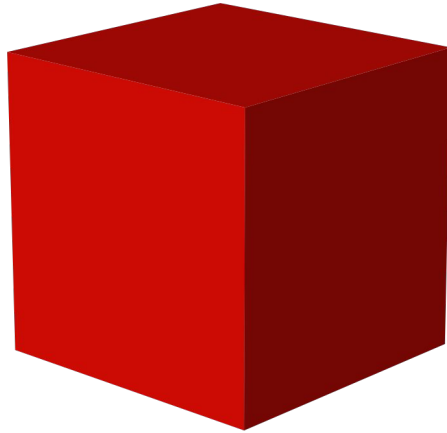
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></a-entity>
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```
<a-entity
```

```
  networked="template: #box-1;" position="5 0 0"
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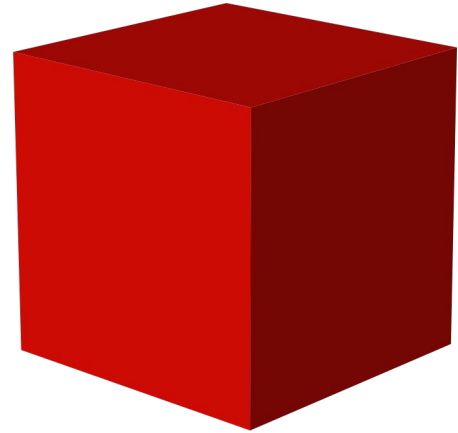
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></a-entity>
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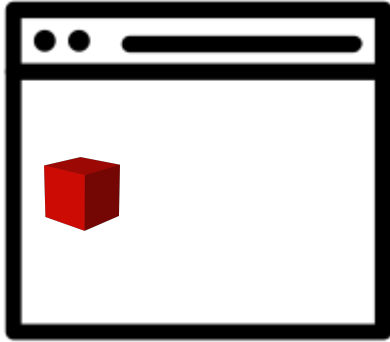
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<a-entity
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```
  networked="template: #box-1;" position="10 0 0"
```

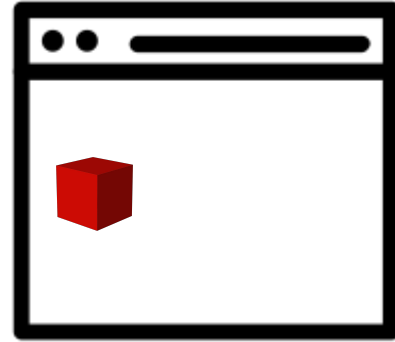
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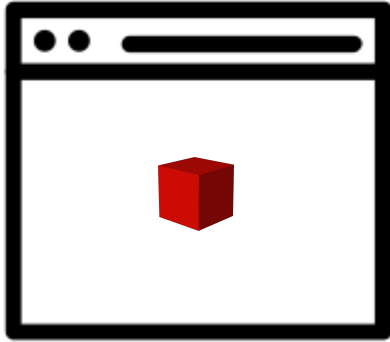
YOUR BROWSER



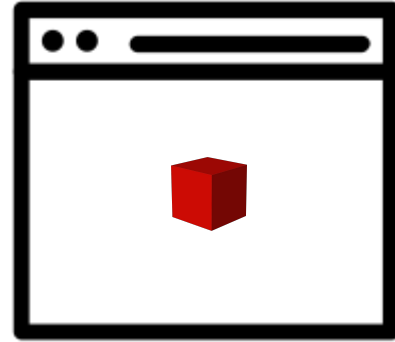
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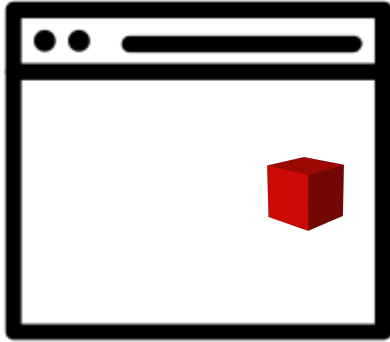
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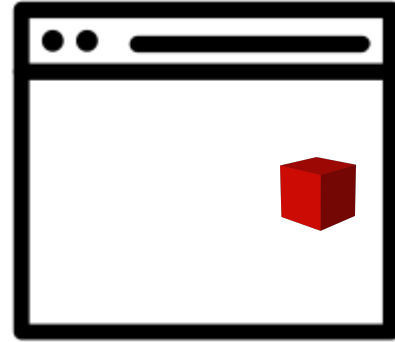
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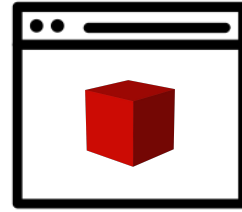
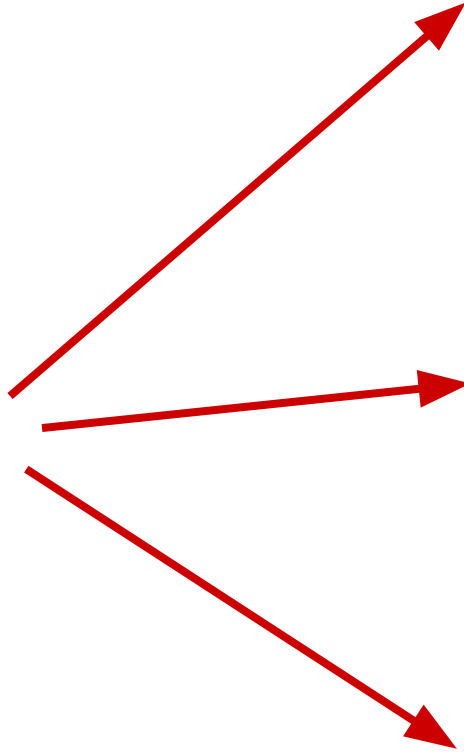
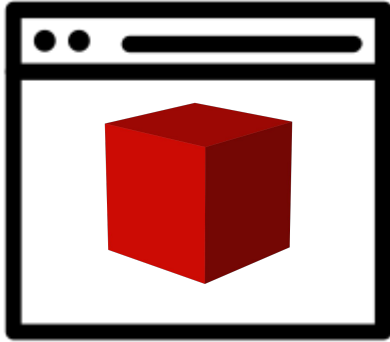
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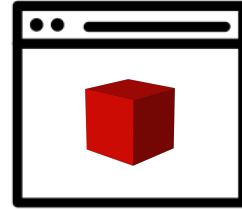
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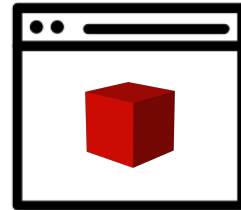
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FRIEND



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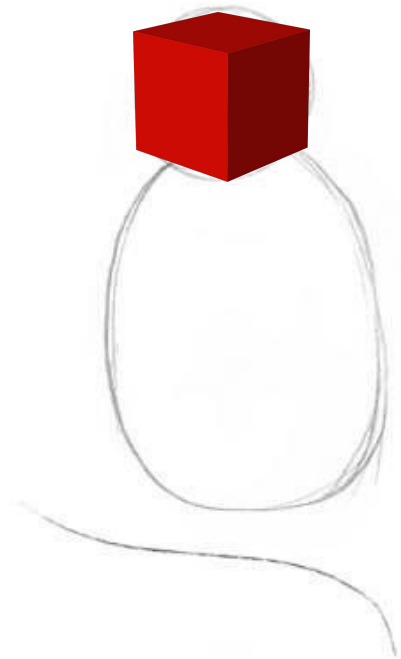
FRIEND



1.



2.



1.



2.

```
<a-assets>
  <!-- Templates -->

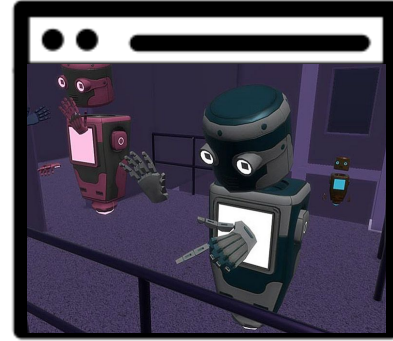
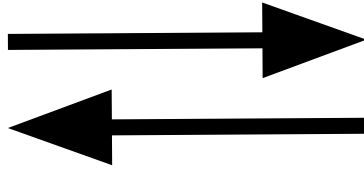
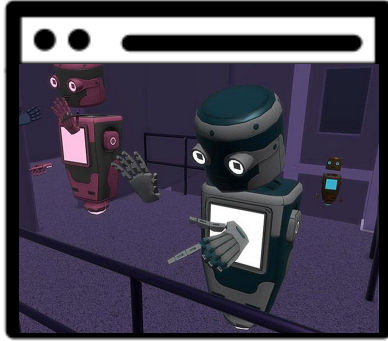
  <!-- Avatar -->
  <template id="avatar-template">
    <a-entity class="avatar">
      <a-sphere class="head"
        color="#5985ff"
        scale="0.45 0.5 0.4"
        random-color
      ></a-sphere>
      <a-entity class="face"
        position="0 0.05 0"
      > ↔ </a-entity>
    </a-entity>
  </template>

  <!-- /Templates -->
</a-assets>

<a-entity id="player"
  camera
  networked="template:#avatar-template;attachTemplateToLocal:false;"
  position="0 1.6 0"
  spawn-in-circle="radius:3"
  wasd-controls
  look-controls>
  <a-sphere class="head"
    visible="false"
    random-color
  ></a-sphere>
</a-entity>
```

YOUR BROWSER

FRIEND'S BROWSER



GET STARTED

bit.ly/networked-aframe

NETWORKED-AFRAME

Social VR on the web

@HaydenLee37

bit.ly/networked-aframe