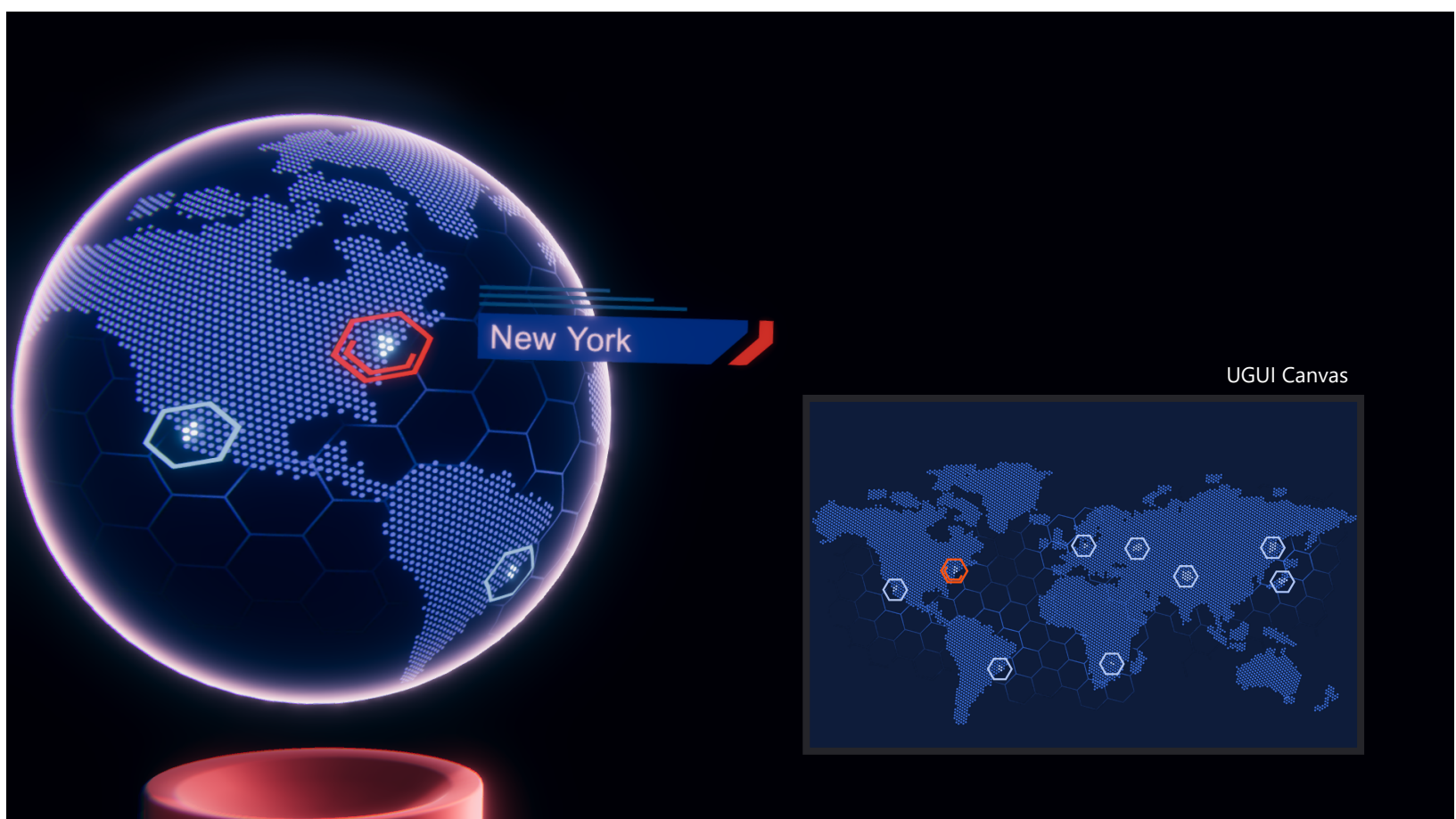# ANY.UI

Display & use UGUI
on ANY 3D surface

DOCUMENTATION

1   What does ANY.UI do?

ANY.UI projects your canvas onto objects as a texture.
Input Events that hit the object are propegated back to the canvas.
This enables you to interact with the canvas via the 3D Object.

ANY.UI r equir es the 3D Object t o be unwrapped.
For optimal results, the unwrap should be distortion free, and the UV
area that will be used to display the UI should
match your canvas' aspect ratio.

(2) Where do I start?

This documentation contains the following:

(3) Automatic Setup
Quick and easy wizard to setup a mesh for AnyUI.

(4) Manual Setup
Step-by-step guide to set up your mesh and canvas

(5) Component Guide
Step-by-step guide to set up your mesh and canvas

(6) Code Documentation
Coming soon...but you can examine the example scenes
for now

Start first by reading through the Automatic and Manual Setup
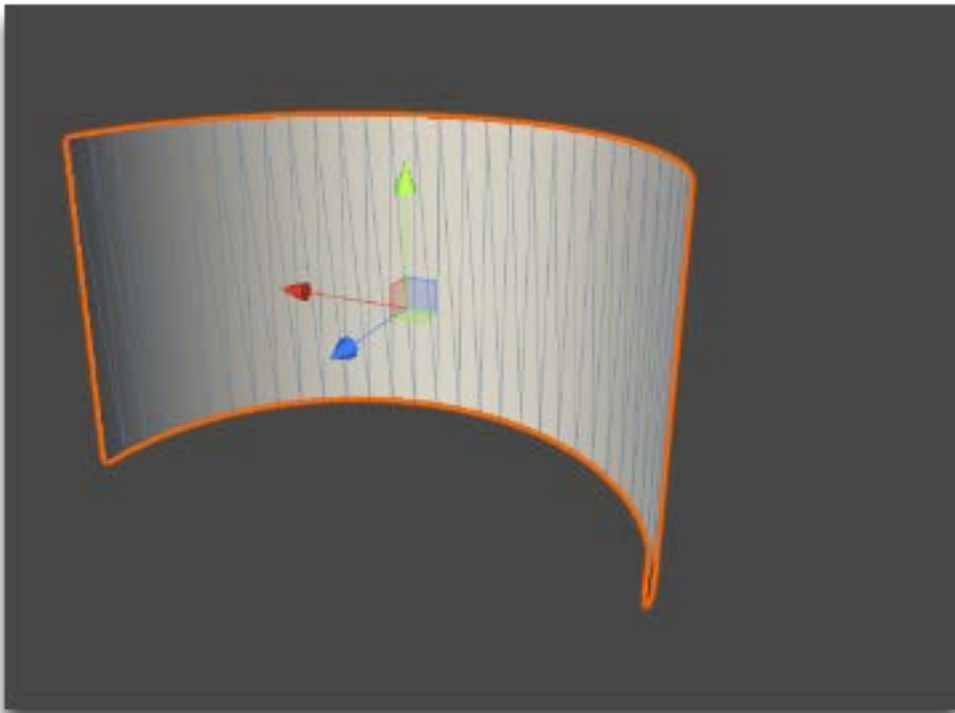sections, and then have a look at the library scenes.
After that, feel free to examine the examples and read the
component documentation of this manual.

If you have any further questions, please contact us at
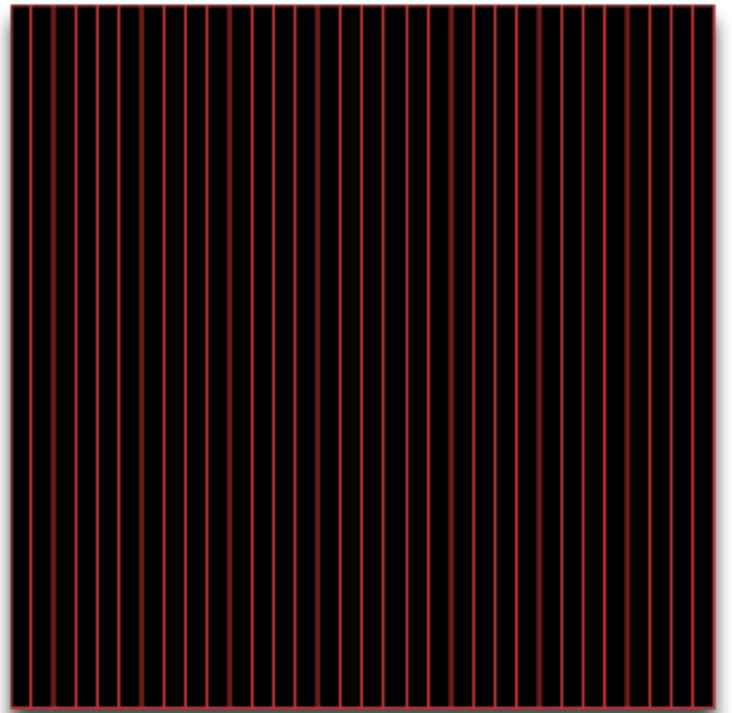anyuics@gmail.com

3 Quickstart / Automatic Setup

1) Have a prepared model
Place an unwrapped model into your scene.
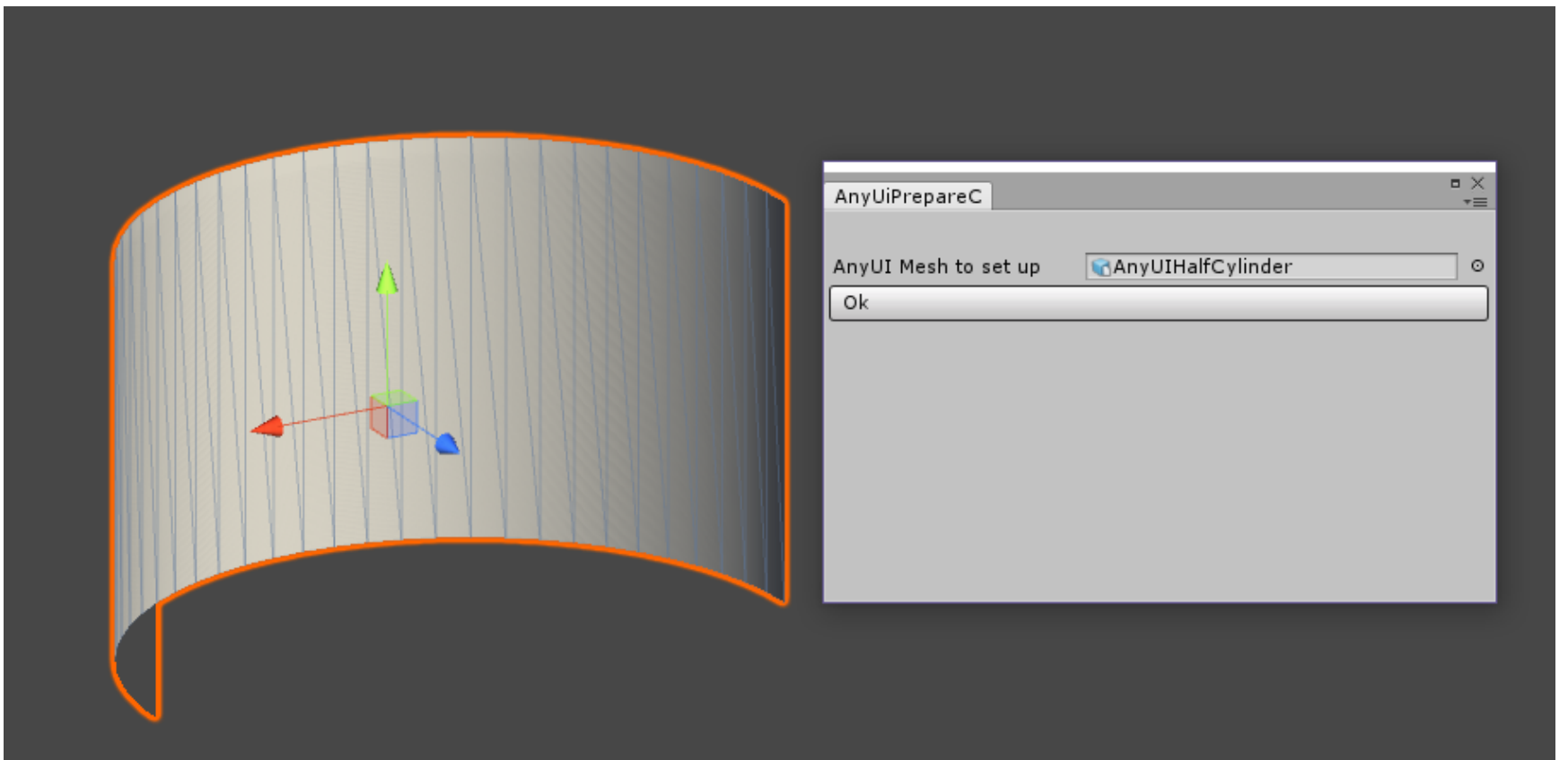

3D Model in Unity Scene

UV unwrapping

...if y ou ar e wonder ing how t o optimally unwrap for Any UI
Have a look at the library objects, we have included their unwrap as
a texture so you can see how different unwraps influence the results.

3 Quickstart / Automatic Setup

2) Run the Automatic Setup

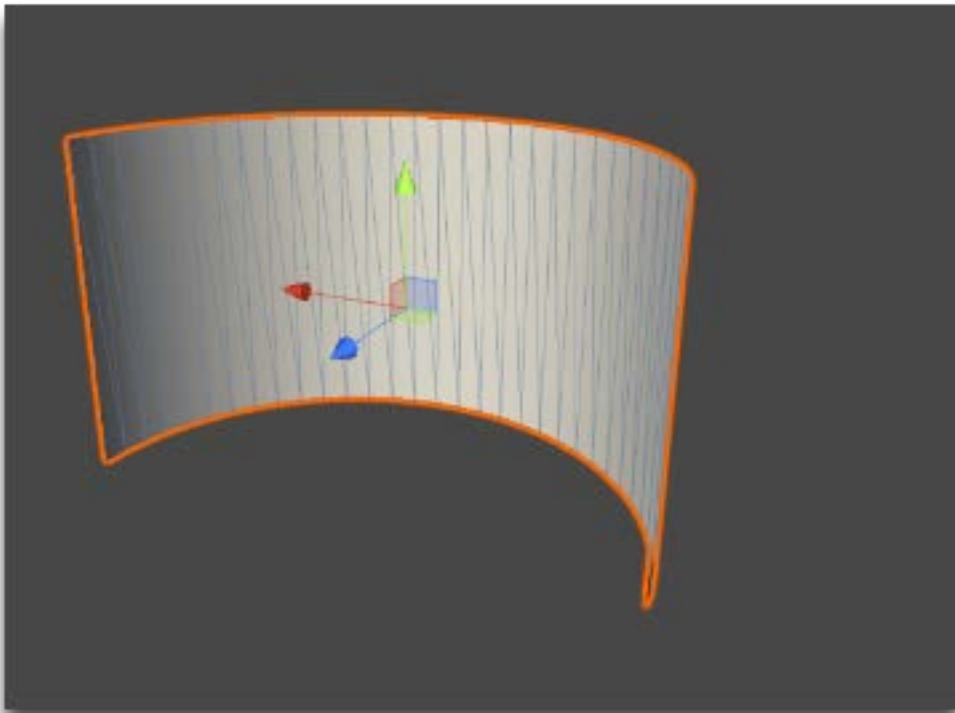The Automatic Setup can be found in Windows->AnyUI

3) You are basically done!

A canvas gets automatically added to your scene, and is set up along with your 3D model. Place any UI element into the canvas, and it should appear on the 3D mesh, and behave like a regular Unity UI element.
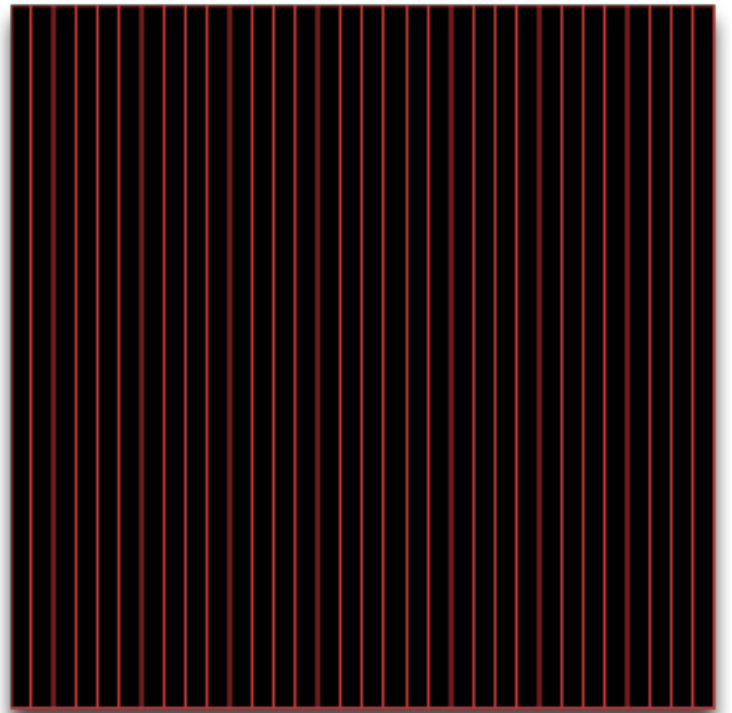
4 Quickstart / Manual Setup

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3D Model in Unity Scene

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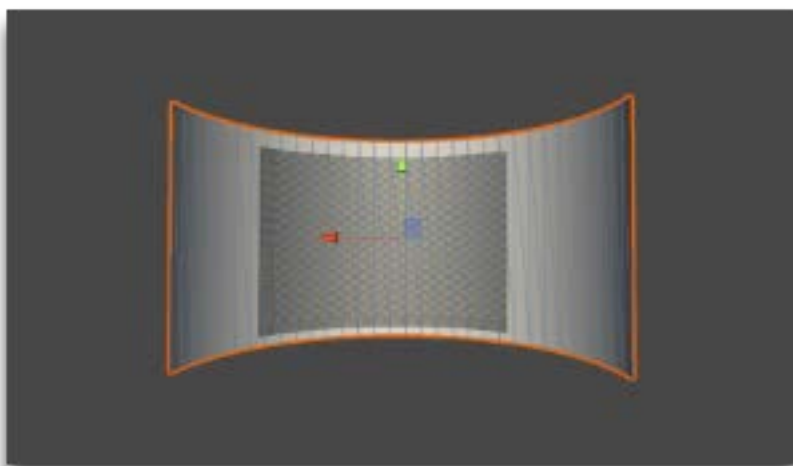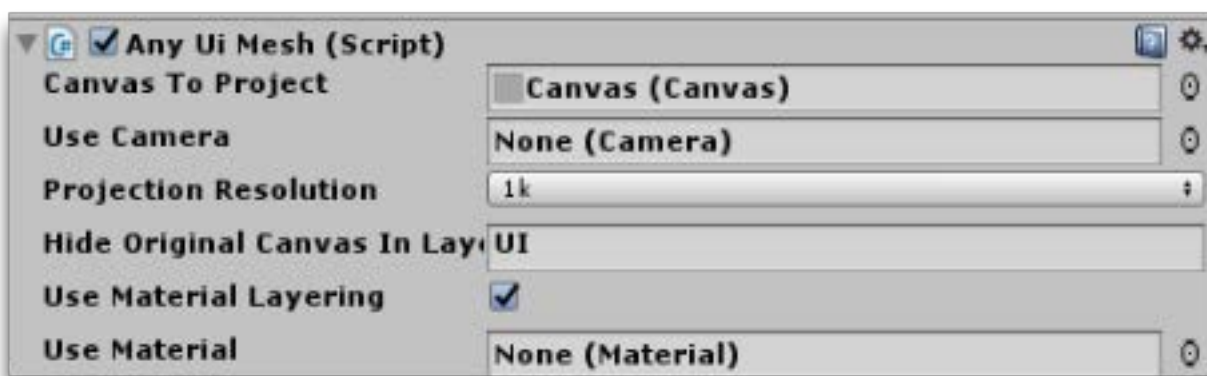
4 Quickstart / Manual Setup

1) Place an unwrapped 3D model in your scene

2) Create a canvas object

3) Set the canvas to world space

4) Remove the graphics raycaster from the canvas

5) Add an Any UI Canvas component
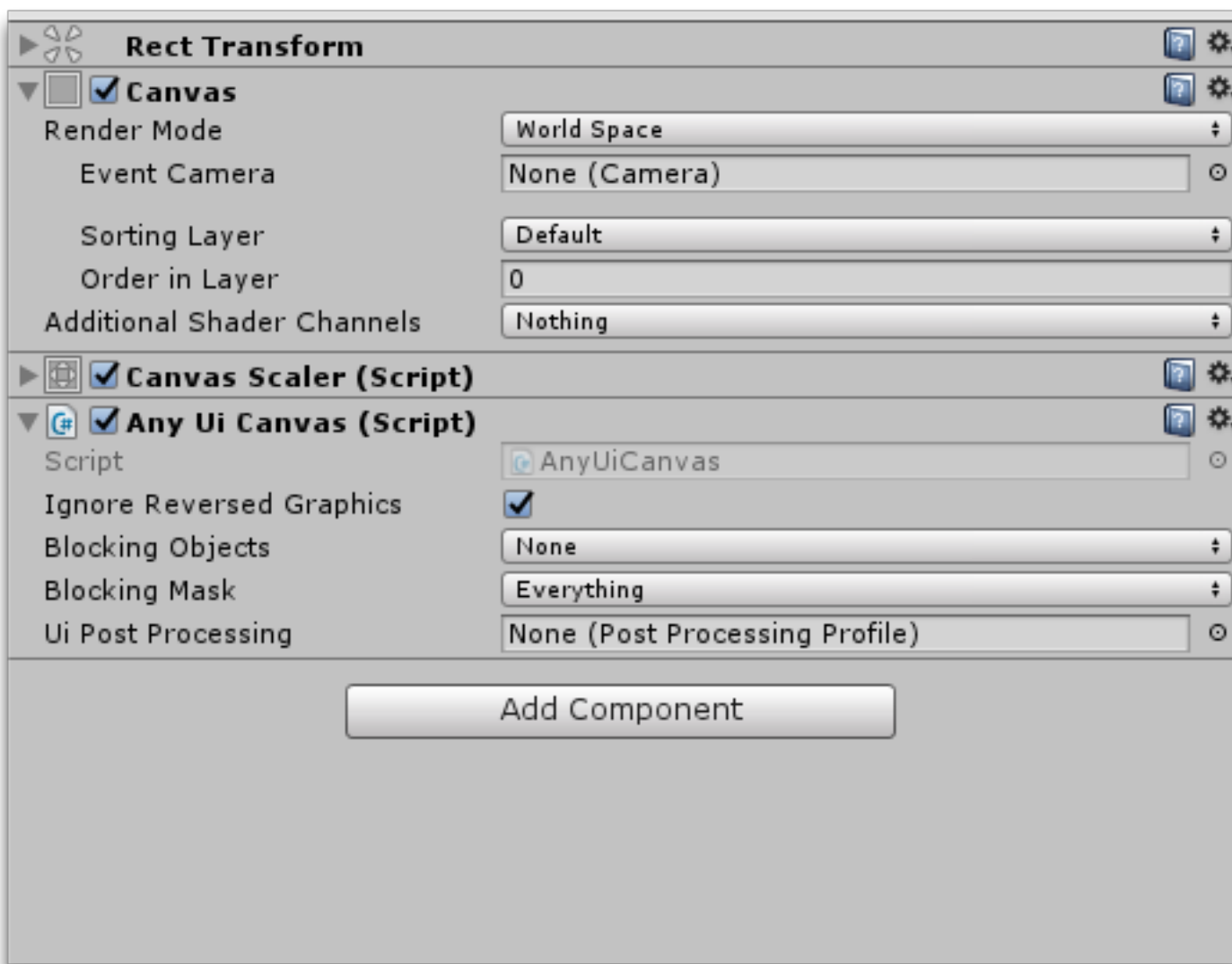
4 Quickstart / Manual Setup

6) Add an Any UI Mesh component to your 3D Mesh and drag the canvas you want to use into the Canvas To Project field.

3D Mesh with AnyUI

Canvas with image inside

If you place an image into your canvas, you should see it beeing rendered on your 3D mesh right away.

Congratulations, you allmost made it. Your 3d object should allready receive input events and propegate them the UI canvas!

4 Quickstart / Manual Setup

7) Adjust your canvas aspect ratio

If your UI elements appear squashed on the 3D object, it's most likely that the aspect ratio of your canvas doesn't match your uvs. You can fix this by scaling your canvas.
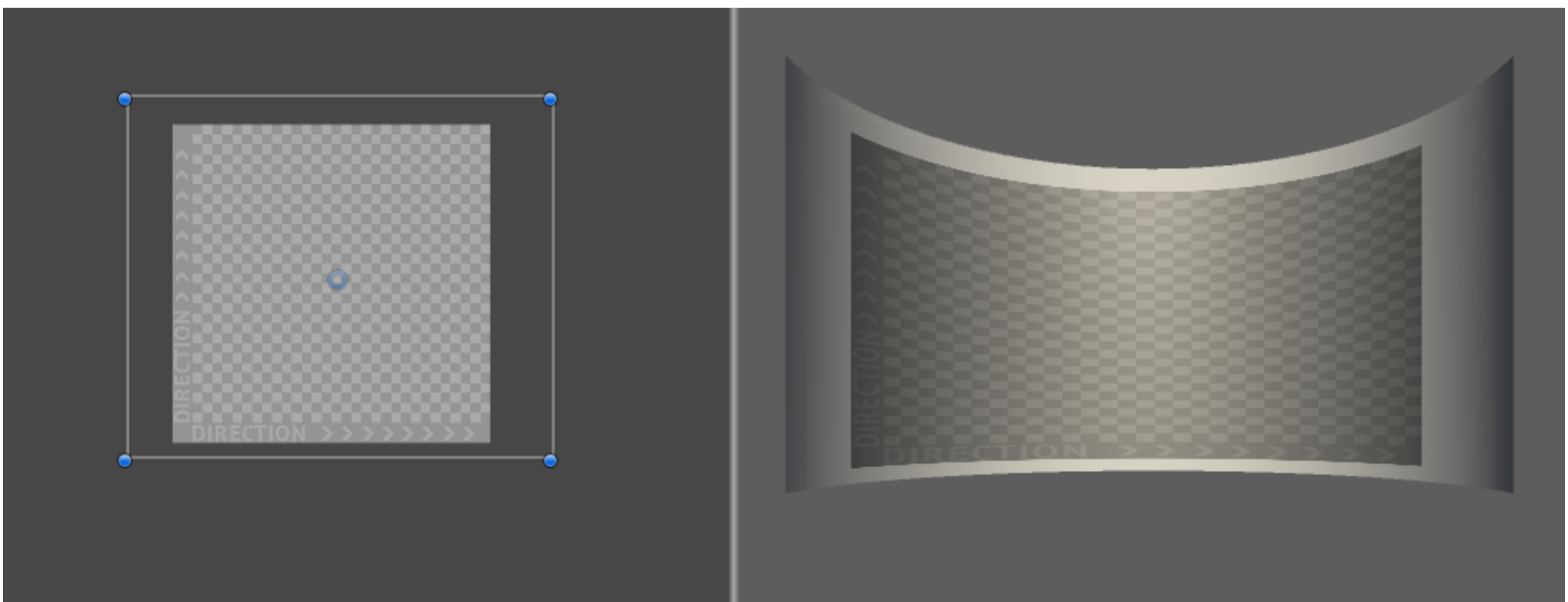
Distortion due to aspect ratio mismatch

Projection with corrected aspect ratio

5 Components / Any UI Mesh

There are 4 components, but only ANY UI Mesh and ANY UI Canvas are required.
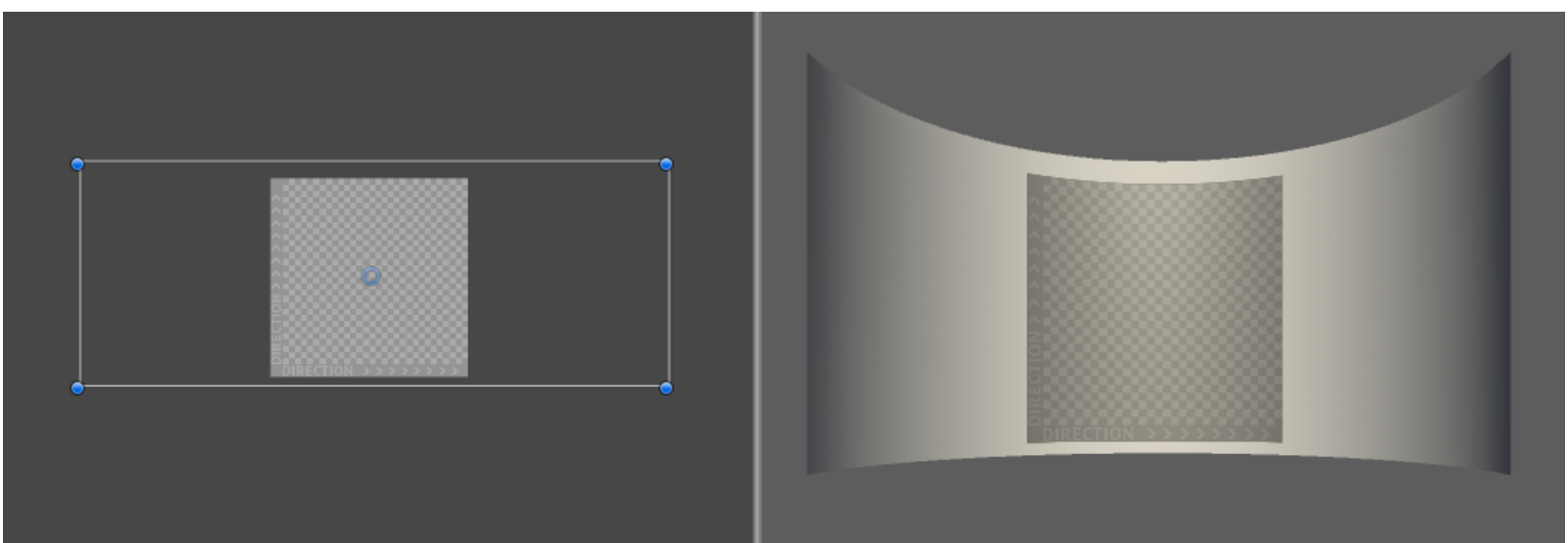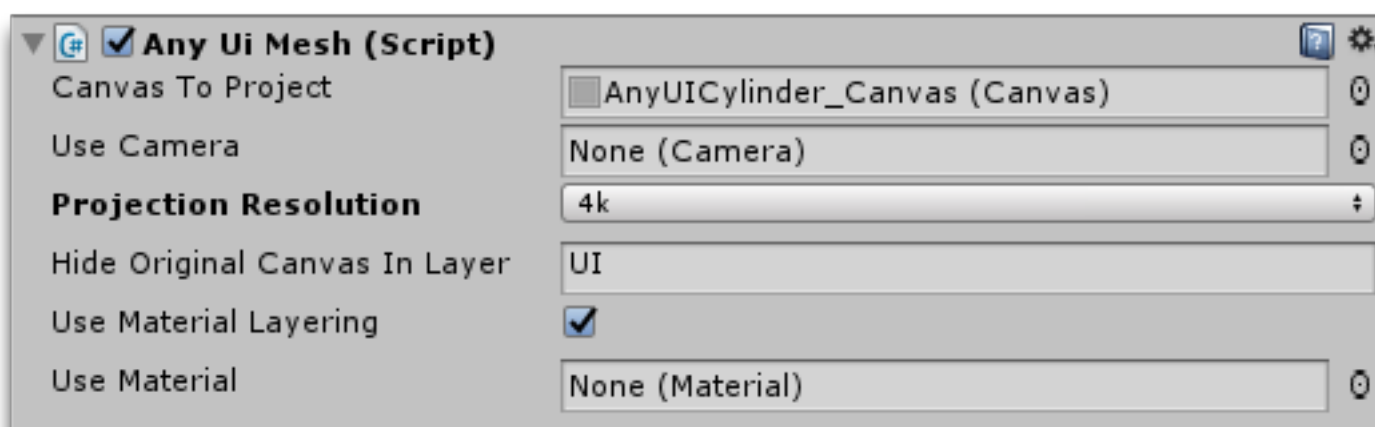
ANY UI MESH

The ANY UI MESH component should be added to the mesh you want your UI to display on. The mesh does need a mesh render and a mesh filter component.

Any Ui Mesh (Script)		
Canvas To Project	AnyUICylinder_Canvas (Canvas)	
Use Camera	None (Camera)	
Projection Resolution	4k	
Hide Original Canvas In Layer	UI	
Use Material Layering	✓	
Use Material	None (Material)	

Canvas To Project

Drag the canvas you want to use on your 3D mesh here.

Use Camera

If you want to cast the input from another camera than your main camera, drag the camera into this field.
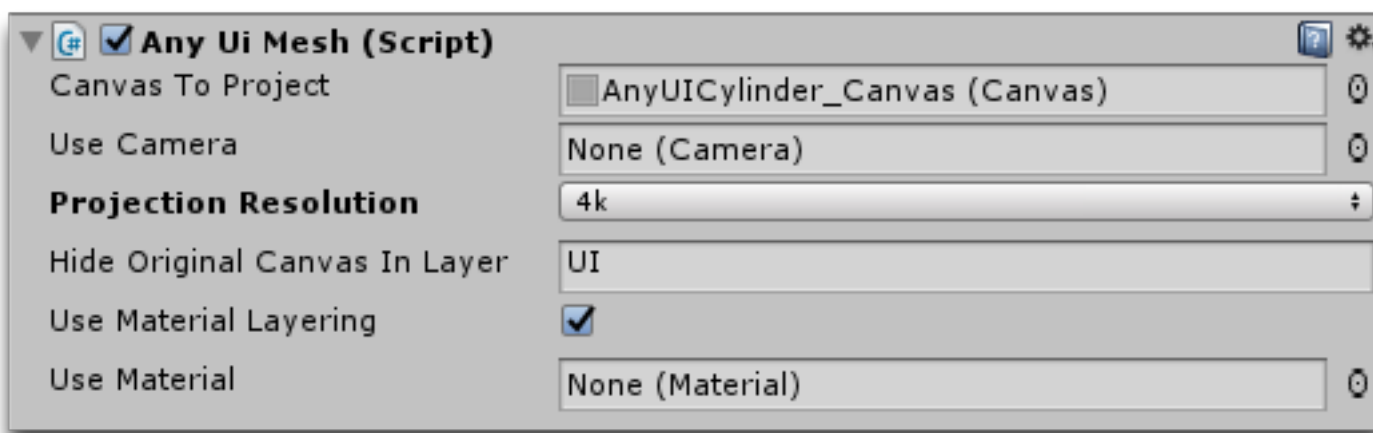
Projection Resolution

Determines the resolution of the UI texture used on your mesh.

5 Components / Any UI Mesh

(continued)

Hide Original Canvas in Layer

Your original UI canvas layer will be hidden during playmode if it's set to this layer.

Use Camera

If you want to cast the input from another camera than your main camera, drag the camera into this field.

Use Material Layering

BLayering enables you to layer for UI canvas onto the material of the 3D mesh. (e.g. self illuminated UI on top of a standart material)

Use Material

The material used for rendering your UI on the mesh. If you want e.g. a UI not influenced by light, use an unlit material.
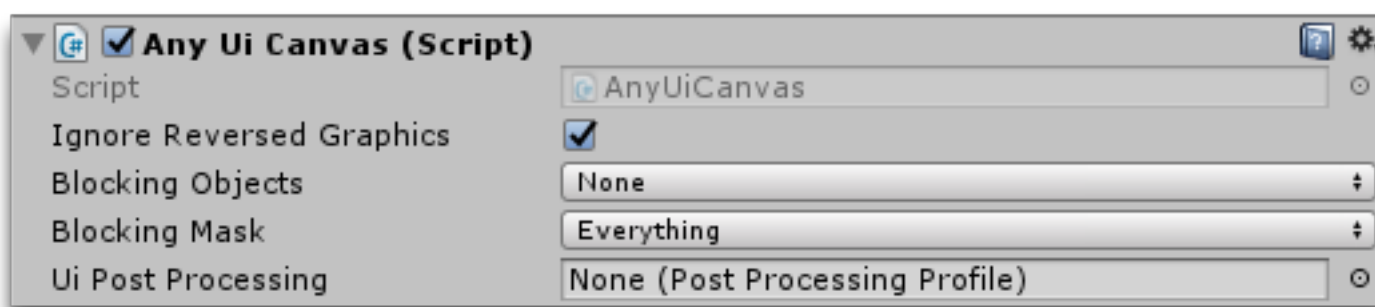If this field is left blank. a standart material will be used.

5   Components / Any UI Canvas

Any UI Canvas

The Any Ui Canvas component should be played on the canvas your want to project to the mesh. It works as a replacement of the grahics raycaster.

You have to remove the graphics raycaster from the canvas element in order to work!

Ignore Reversed Graphics, Blocked Objects & Blocking Mask

Those settings are similliar to the unity graphics raycaster component. Please have a look at the Unity documentation.

UI Post Processing

Renders the canvas with a Post Processing stack. This is usefull for example to apply bloom to onyl your UI elements.

This feature only works with v.XX of the the post stack, as it is undergoing changes right now!

5 Components / Mime Transforms

Any UI Mime Transform & Mime Transform Updater
This component allows you to stick / glue a 3D mesh to a UI element position on your mesh. This is useful for playing particle effects in 3D at the same location as an UI element on your mesh, or to place moving labels in 3D.
Requires a Mime Transform on the 3D object your want to place, and an updater on the main UI Mesh. The Mime Transform has to be a child of the main UI Mesh.
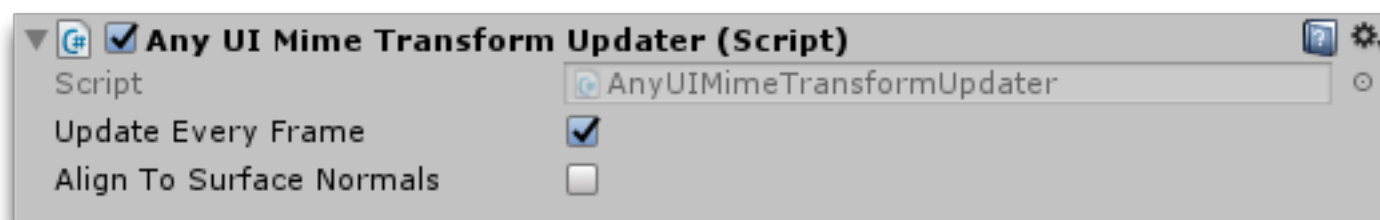

The button position drives the position of the label

5 Components / Mime Transforms

(continued)

ANY UI Mime Transform Updater

Has to be placed on your main UI mesh. Updates the Mime Transforms of it's child objects.

```
▼ ⑥ ☑ Any UI Mime Transform Updater (Script)          📄 ⚙▾
    Script                    ⑥ AnyUIMimeTransformUpdater        ⊙
    Update Every Frame        ☑
    Align To Surface Normals  ☐
```

Update Every Frame

Updates the positions every frame. Only needed if you the UI elements change position every frame.

Align to Surface Normals

Aligns to axis to the surface normal of the point on the 3D UI mesh.

ANY UI Mime Transform

Has to be placed on the object your want to put on your UI's position.

```
▼ ⑥    Any Ui Mime Transform (Script)                 📄 ⚙▾
    Script                 ⑥ AnyUiMimeTransform              ⊙
    UI Object To Mime      ⣿buttonOnYourCanvas (Rect Transform)  ⊙
```

UI Object To Mime

The UI element from your canvas that you want your 3D element to get it's position from.