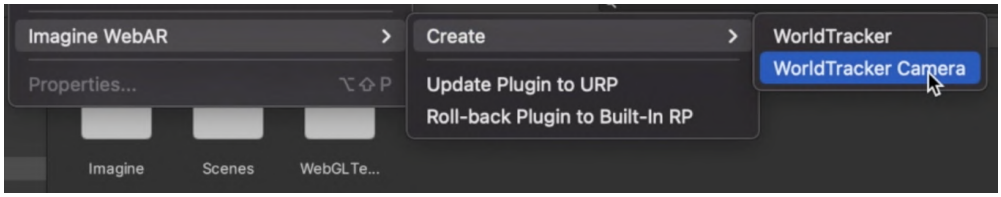
Imagine WebAR World Tracker

Version:	1.0.1
WebGL Demo:	https://webar.imaginerealities.com.au/wt/demo
Contact Support:	https://imaginerealities.com.au/contact-support
Publisher's Website:	https://imaginerealities.com.au
Unity Forums Thread:	Coming Soon
Discord Community:	https://discord.gg/ypNARJJEbB

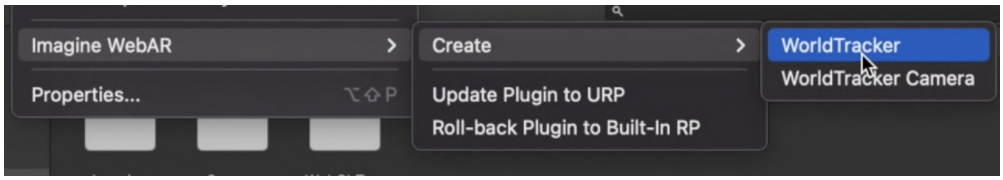
Setting up your AR Scene in Unity

A simple AR scene can be set up in a few minutes.

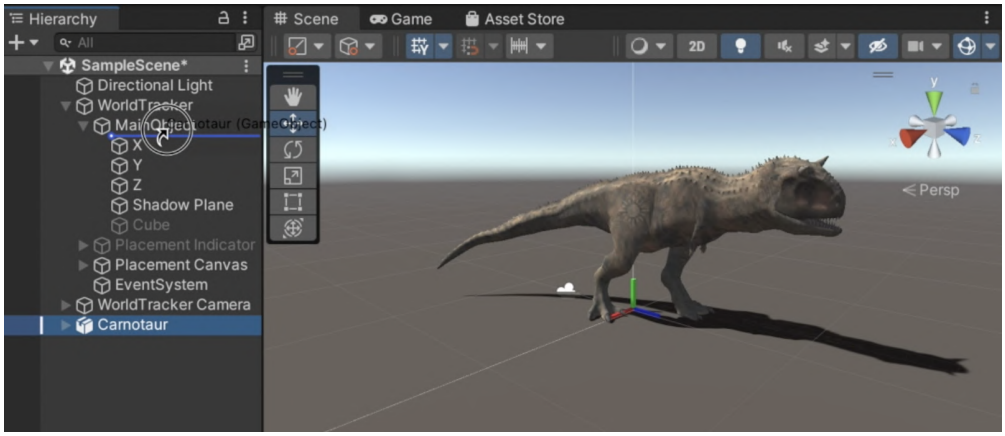
1.) Import the plugin and create a new Scene in Unity.
2.) Create a **World Tracker** from **Assets>Imagine WebAR>Create>World Tracker**



3.) Delete the Main Camera gameobject, and create a **World Tracker Camera** from **Assets>Imagine WebAR>Create>World Tracker Camera.** Drag this object into the Tracker Cam property of the World Tracker

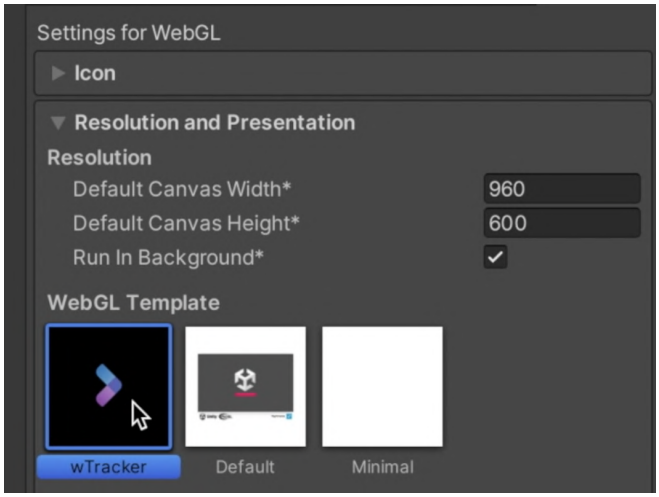


4.) Now we are ready to add our AR Content. Drag your 3D models inside **World Tracker>MainObject.**



Building your AR Scene

1.) Go to **File>Build Settings,** switch to the **WebGL** platform if needed and add your scene in the build. Then select **wTracker** template in **Player Settings>Resolution and Presentation>WebGL Template**



2.) Build your project.
3.) Upload your build in your preferred hosting site (eg. Google Firebase or AWS). Make sure to enable https/ssl (otherwise, the webcam will not be started)
4.) Open your URL in your mobile device. Allow access to your device camera and motion sensors. You should now see the game objects anchored in your environment.

Tracker Settings

Mode:

The tracker supports 2 different modes: 6DOF and 3DOF

6DOF Mode:

The 6DOF Mode allows camera movement along X-Y-Z (position) and Yaw-Pitch-Roll (rotation).

6DOF > DepthMode

SCALE_AS_DEPTH - this depth-mode emulates the z camera distance by scaling the 3D object. This allows for very accurate representation of depth comparable to SLAM in ideal scenarios. The downside is that trail renderers, particles and physics will be affected by the scale changes.

Z_AS_DEPTH_EXPERIMENTAL - this depth-mode approximates the actual depth using computer-vision. This is still a work in progress and may only perform well on a few use cases.

3DOF Mode:

The 3DOF Mode only allows camera rotations (Yaw-Pitch-Roll). This mode is desired in some experiences such as “Stationary or Look-Around AR”. And unlike the 6DOF Mode, this mode is not affected by drift.

3DOF > Arm Length:

The Arm Length property is the approximate distance (in meters) of the camera to the vertical axis of rotation. Eg. A person holding a smartphone has an arm length of 0.3-0.5 meters.

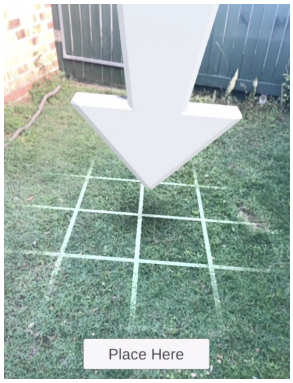
MainObject

The gameObject to be placed in AR

Camera Start Height

The distance (in meters) of the AR Camera to the ground.

Use Placement Indicator
This property will allow the user to place the object manually before starting the experience. If this is unchecked, the object will be automatically placed upon scene initialization.



Placement Indicator Settings > MinZ
The nearest distance where your Main Object can be placed.

Placement Indicator Settings > MaxZ
The furthest distance where your Main Object can be placed.

Placement Indicator
The gameObject for the arrow that will indicate where your Main Object will be placed in the ground.

OnPlacementIndicatorShown
Unity event that is called when the device is pointed to a valid spot in the ground (determined by MinZ and MaxZ).

OnPlacementIndicatorHidden
Unity event that is called when the device is pointed to an invalid spot in the ground (determined by MinZ and MaxZ).

OnPlacedOrigin
Unity event that is called when the user places the MainObject to the ground.

OnResetOrigin
Unity event that is called when the user resets the placement of the MainObject.

ShowGameObjectsWhenPlaced
GameObjects in this list are deactivated during placement phase, and will be activated when MainObject is placed.

ShowGameObjectsWhenReset
GameObjects in this list are activated during placement phase, and will be deactivated when MainObject is placed

SwipeToRotate
Use this script to allow players to rotate your MainObject by swiping across the screen.

PinchToScale
Use this script to allow players to scale your MainObject by doing pinch gestures

TwoFingerPan
Use this script to allow players to move your object by dragging on the screen with 2 fingers. Note that 6DOF mode, if your MainObject is dragged too far from the origin, the tracking drift becomes very prominent.

FAQ and General Questions

Camera does not open when I host in my website

- Make sure you are hosting on your server with https enabled. Otherwise, access to the webcam will be blocked due to security reasons.
- Check your **Player Settings>Resolution and Presentation** and make sure that have selected the **wTracker** WebGL template.

Unity loading bar is stuck at 90%

- This is usually caused by your WebGL compression. You can set **Player Settings>Publishing Settings>Compression Format** to **Disabled.** You can also compress your build but you have to ensure that gzip(.gz) or brotli(.br) is enabled in your hosting server.

Known Issues:

Visit the #bug-reports channel in our discord

Change Notes:

Version 1.0.1
• [FIXED] Fixed a JSON parsing bug causing the tracker to behave erratically on some countries and regions

• [FIXED] Fixed object getting skewed when opening the experience
• Minor UX Improvement for WorldTracker Inspector
• Added **OnResetOrigin** and **OnPlaceOrigin** event delegates
• Added Lists for **ShowObjectsOnPlace** and **ShowObjectsOnReset** gameObjects
• Added ARCamera class to support Experimental **WebcamTexture** and **DataURLTexture** video backgrounds
• Added API's to start and stop the WorldTracker

Version 1.0.0
• First release