

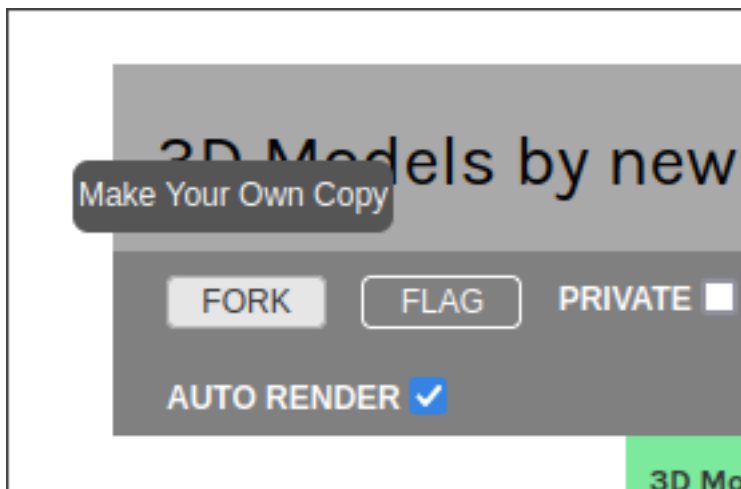
World Building

As you populate your scene you'll start to want to add a bit of atmosphere. Something to add a bit more mystery or just to make it a bit more interesting! This guide will show you some simple things you can add to the scene to do just that.

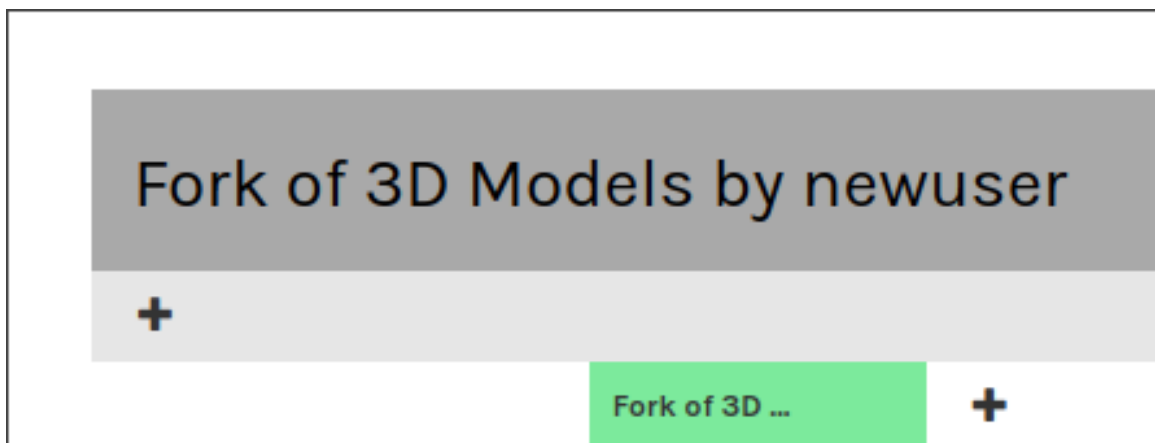
1. Lighting

The default scene comes with lighting for you, and you may have notice the shadows appearing on the floor. When you add your own lights to the scene you replace the default lights however and you can adjust them as you wish.

I am going to start this guide by **Forking** a previous document. **Forking** is a word from the world of computer science where a document or file is copied from a certain point and then a new document is created using that as a base - it's just a nerdy word for **copy**. The Accelerate Editor has this feature built in, and you can create a **fork** of any document you see. You do this by opening the document settings (gear icon) and then clicking on **FORK**.



The forked document will be called **Fork of** and then the name of the original document. I prefer to rename the document into something new and more memorable at this point.

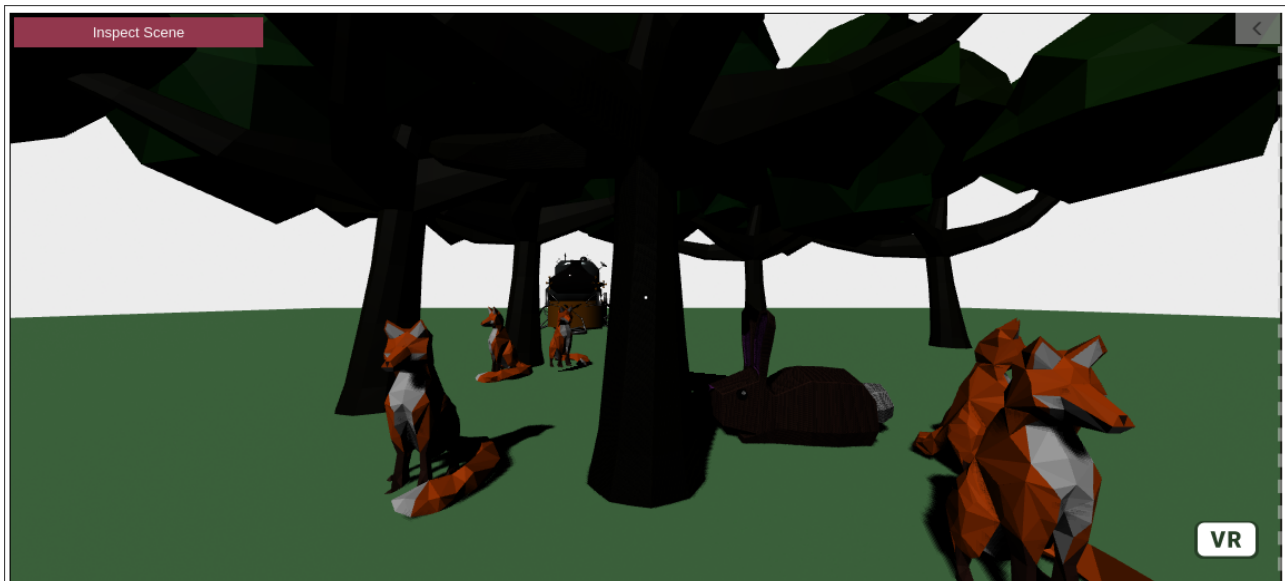


You could create a fork of the [same document here](#) if you'd like to follow along - if not try making a fork of one of your own old documents, or someone else's!

Let's start by adding a **directional** light. As the name suggests these lights aim in one particular direction. The [A-Frame documentation describes the directional light like so](#):

Directional lights are like a light source that is infinitely far away, but shining from a specific direction, like the sun.

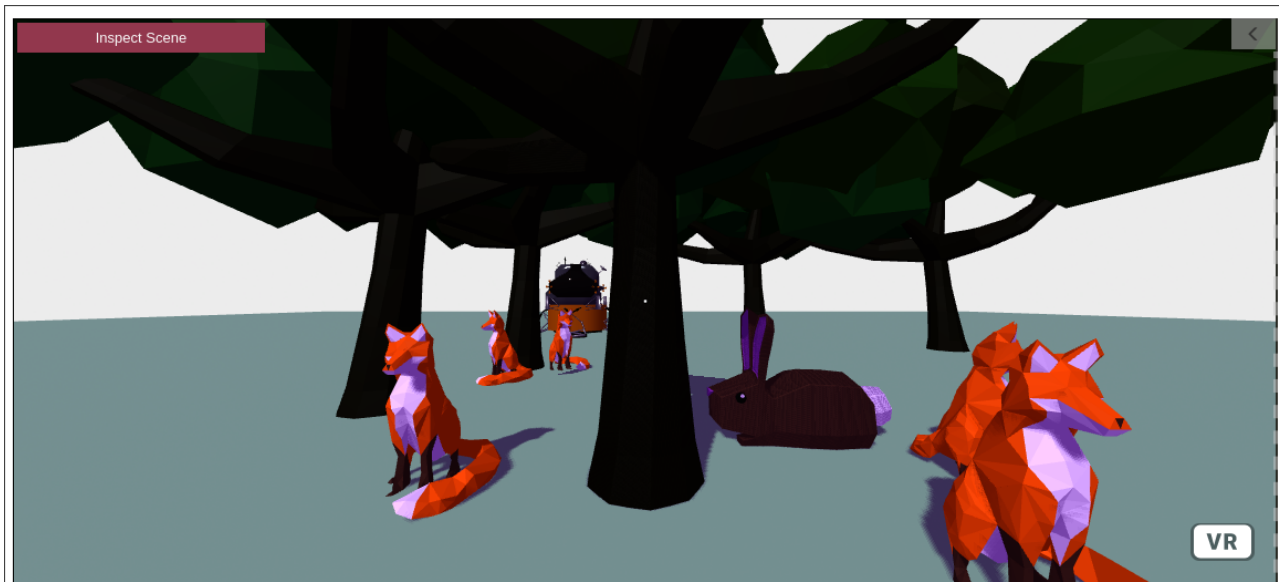
If you leave the default snippet values you'll get a light shining forward from behind you. The shadows will be a bit more pronounced, like so:



Now lets add an [ambient light](#).

Ambient lights globally affect all entities in the scene. The color and intensity properties define ambient lights. Additionally, position, rotation, and scale have no effect on ambient lights. We recommend to have some form of ambient light such that shadowed areas are not fully black and to mimic indirect lighting.

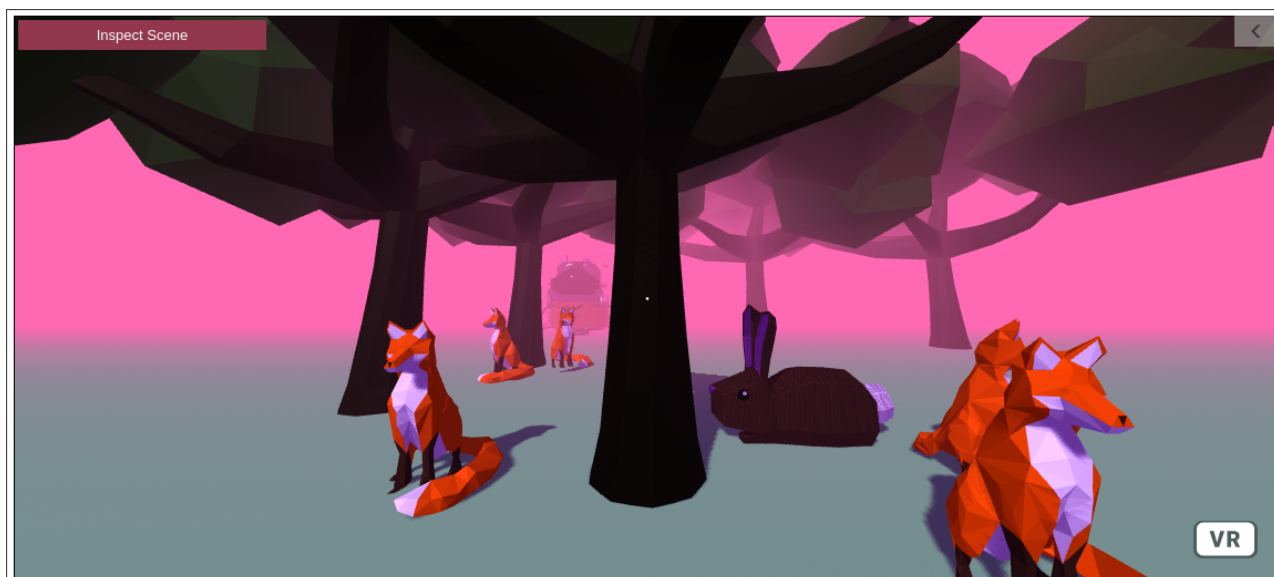
So an ambient light is just a general feeling of lighting throughout the scene, not from a particular point of origin. So there isn't much to edit in the snippet, I will however change the colour to rebeccapurple. You can see the ambient light and the directional light interact to soften and colour the shadows:



2. Fog

Another simple but impactful thing we can add is fog. Fog is a great way to make the world much more mysterious but limiting how far the user can see, this way you can make certain areas or objects discoverable. Again this is just a simple snippet we can add using **A-Frame Fog**. The **near** and **far** values determine the range the fog exists in - objects closer than the **near** value will not be in fog, and object beyond the **far** value will not be visible, the distance in between will be the build up of fog. The rate of build up in fog is determined by the **type** which can be either **linear** or **exponential**, and the **density** which also impact how quickly the fog grows dense. The

default values tend to be pretty good however, I am just going to change the colour of my fog to **hotpink**. You can read more about fog here](<https://aframe.io/docs/1.3.0/components/fog.html>). The scene immediately looks pretty interesting!



Enter the VR space and explore your world!

Under the hood the Accelerate Editor is using the A-Frame 3D and Web VR engine. So all these snippets are invoking A-Frame functions. We are just scratching the surface really, so if you are more inclined towards the *coding* side of things, feel free to check out the [A-Frame docs](#) which have already been mentioned a couple times in this guide.