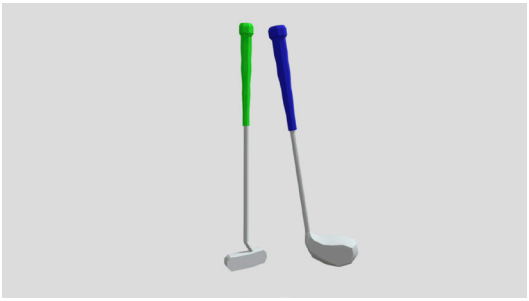
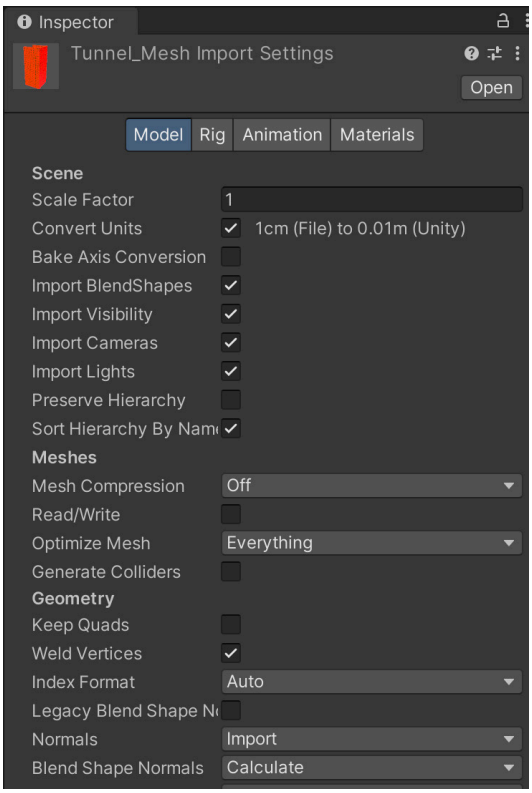
KW 14 - 3D Assets

IMPORTANT:
Please only work with **Unity 2021.3.18f1 (LTS)** in this class.
This measure is designed to protect the mental health of your teaching assistants.

PHASE 4: ADD A 3D MODEL





After this exercsise you should be able to import a 3D Model into Blender and do basic adjustments to it, or create a **very** simple 3D model yourself, and add it to a Unity project to use it in your game.

Exercise

a. **Find a freely available 3D Model and which you import into Blender or model a simple object yourself:** Load the model into Blender. Adjust its scale such that it matches the scale of your game. You can alternatively model a simple object yourself.
   - → Example adjustment: Find a basic bicycle, and add lights.
   - → Example modelling: Model an arrow, model a soccer goal (don't try to create complicated cloth physics, keep it simple!)
   - → Hint: Units in Blender and Unity are 1:1, i.e. they are the same.

b. **Export your model to Unity and show it in the scene:** Export from blender as an FBX file using the process described in class, and place it in the Unity Assets folder.
   - → Ensure the scene graph in Blender is organized in a manner to enable a meaningful rotation in Unity.
   - → In Unity, drag the object to the Scene and check that it displays correctly: If necessary, check the import settings of your Mesh in the Inspector. Important settings are the scale factor, the checkbox to generate colliders (in general, we don't use autogenerated colliders), as well as the Materials tab to remap materials if necessary. The animations and rig tabs are only important if your model contains a rig or animation data.

c. **Create interactivity with your model:** Program some interaction with your model. For example, if you added lights to a bicycle, ensure they can be switched on or off. If you modelled a simple arrow, make it rotate slightly while it flies, or make the soccer goal bounce when a goal is scored.
   - → Structure the game assets so that the interactions work properly. If your object interacts with physics, the rigidbody must be on the root object. Colliders may be on lower levels of hierarchy.
   - → Create a prefab of your interactive object, and export it as a Unity package.

Exercise submission (2 files):

1. Upload the Unity package file (.unitypackage file ending! NOT .prefab)
2. Capture a short video showing your 3D Model in action. Upload the movie. (mp4, mov).