

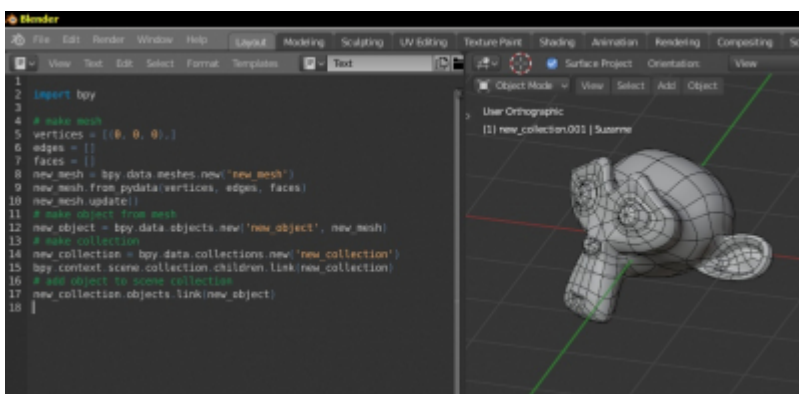
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How to create mesh through the Blender Python API

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To add custom mesh to the scene through the Blender Python API we need to do the following:



Open the “Text Editor” window.

Import the main Blender Python API module.

Any mesh consists of vertices, edges, and faces. Let’s make data blocks for them.

```
vertices = [(0, 0, 0),]
```

```
edges = []
```

```
faces = []
```

Our simple mesh will consist only of a single vertex. So let’s fill only the vertices data block, setting the vertex coordinates.

Next, make the mesh structure with the “new_mesh” name,

```
new_mesh = bpy.data.meshes.new('new_mesh')
```

and fill it from the data blocks.

```
new_mesh.from_pydata(vertices, edges, faces)  
new_mesh.update()
```

We created the mesh, but it couldn't be added to the scene as raw. Only objects could be added to the scene. Let's make an object with the "new_object" name and link it with the created mesh.

```
new_object = bpy.data.objects.new('new_object',  
new_mesh)
```

We created the object. But there is more to do. We need a collection in which we will add the created object. Let's make a new collection with the "new_collection" name and place it into the master scene collection.

```
new_collection = bpy.data.collections.new('new_collection')  
bpy.context.scene.collection.children.link(new_collection)
```

Now we can add our object to the scene, placing it into our collection.

```
new_collection.objects.link(new_object)
```

The final code:

```
import bpy  
  
# make mesh  
  
vertices = [(0, 0, 0),]  
  
edges = []
```

```
faces = []

new_mesh = bpy.data.meshes.new('new_mesh')
new_mesh.from_pydata(vertices, edges, faces)
new_mesh.update()

# make object from mesh
new_object = bpy.data.objects.new('new_object',
new_mesh)

# make collection
new_collection = bpy.data.collections.new('new_collection')
bpy.context.scene.collection.children.link(new_collection)

# add object to scene collection
new_collection.objects.link(new_object)
```

After this code execution, by pressing the “Run Script” button, we will add a mesh with a single vertex to the scene.