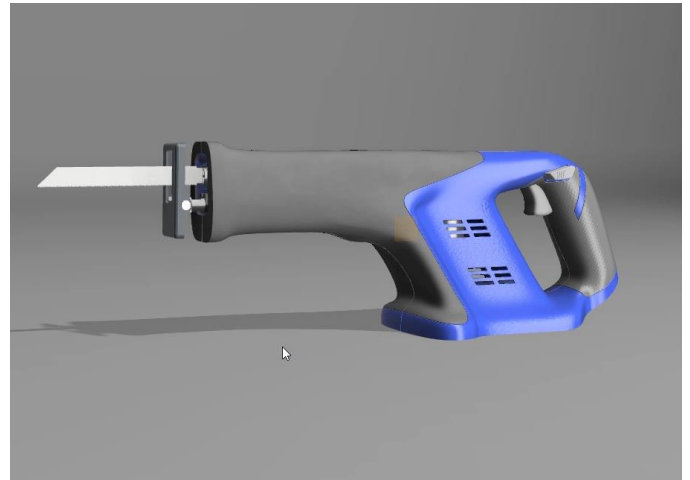# Set up a render

In this module, you'll customize a render scene to your liking before creating a render.

Learning objectives:

- Select a render environment.
- Define render camera settings.

The completed exercise

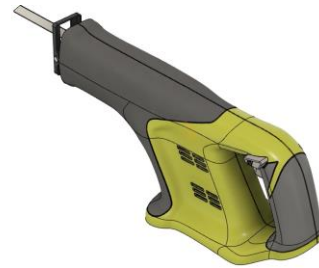**1.** Upload and open the supplied *reciprocating saw.f3d* file.

Figure 1. Open the supplied file

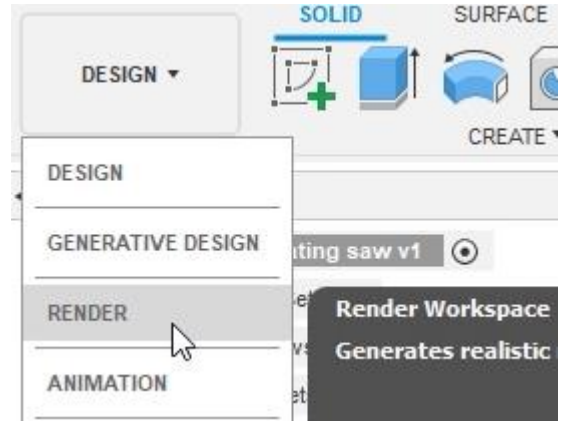**2.** Use the Workspace picker to navigate to the Render workspace.

Figure 2. Navigate to the Render workspace

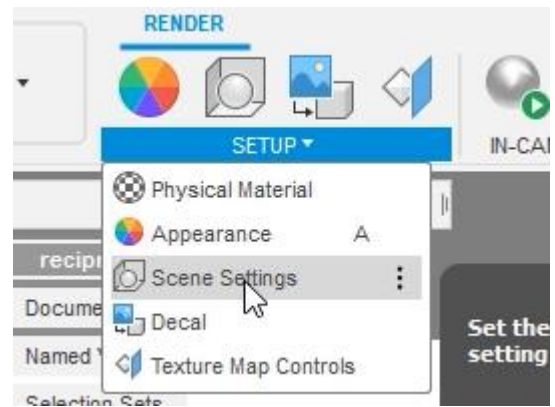**3.** The render's background is currently white. Click Setup> Scene Settings.

Figure 3. Open the Scene Settings tool

4. In the Scene Settings dialog, choose the Environment option from the Background menu, then click the Position option.
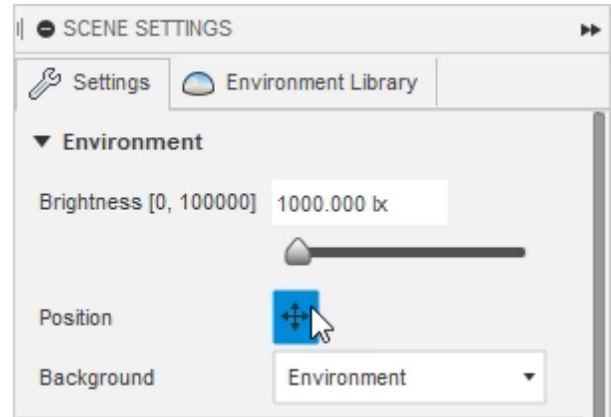

Figure 4. Choose the background type

5. Move the Rotation slider and notice that the lighting angle changes.

Figure 5. Move the Rotation slider to rotate the light source

6. Locate the Cool Light environment inside the Library section, then drag and drop the swatch into the Canvas area. The Cool Light environment is now applied to the render scene. Drag and drop other environments into the Canvas area and choose the one you like the most.
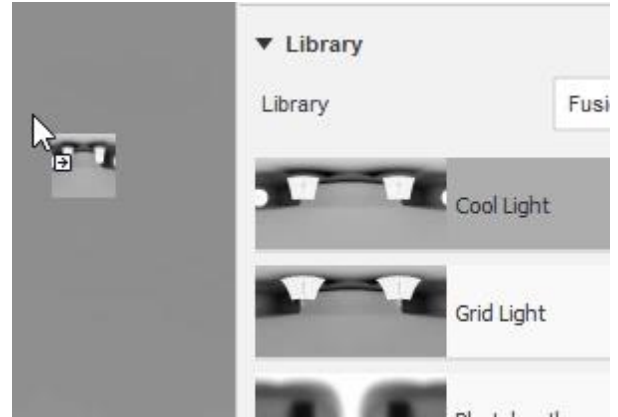

Figure 6. Apply an environment

7. The error icon next to an environment indicates that it needs to be downloaded before you can apply it. Click the icon to download the environment, then drag and drop the swatch into the Canvas area.

Figure 7. Download and apply environments

8. Not only do these backgrounds affect the light falling onto your model, but the environment image will also be visible in the background.

Figure 8. Apply and inspect the Field environment

9. The environment used in this documentation will be the Photo Booth environment. Apply the Photo Booth environment if you want your renders to match the images in this documentation.

Figure 9. Apply the Photo Booth environment

10. Return to the dialog's Settings tab and activate the Ground Plane and Flattened Ground options. The Flattened Ground option affects the photograph environments more than the Photo Booth style environments. Alternate between the Field and Photo Booth environments while toggling the Flattened Ground option to notice the difference.

Figure 10. Activate the dialog's options

11. For the purposes of a render, disabling the Perspective with Ortho Faces option will give you a more realistic render. Choose the Perspective option from the Camera menu. This option can also be changed using the drop-down menu beside the View Cube.
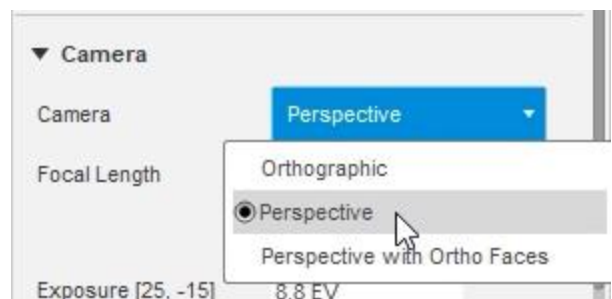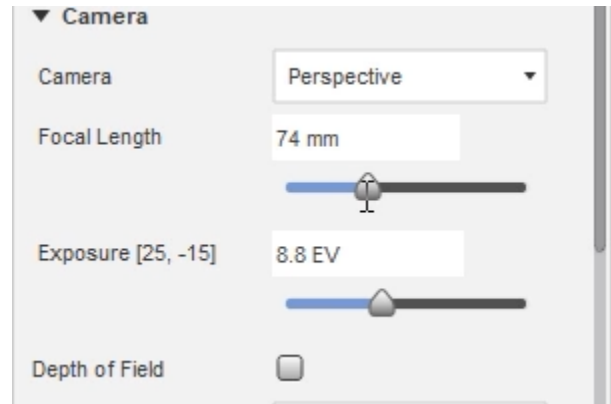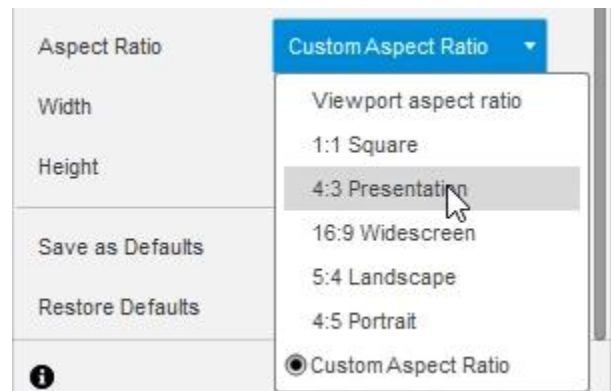

Figure 11. Activate the Perspective option

12. Use the Focal Length and Exposure sliders to customize the render's field of view. Choose the setting you like.
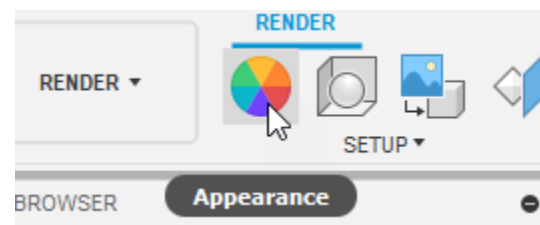

Figure 12. Customize the camera settings

13. The options in the Aspect Ratio menu allow you to customize the render's dimensions. Close the Scene Settings dialog after you finish customizing the settings.
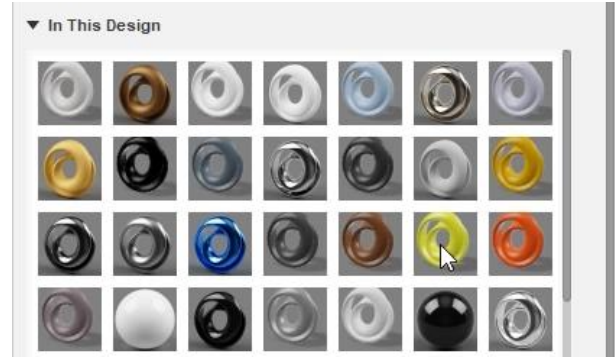

Figure 13. Choose the render's aspect ratio
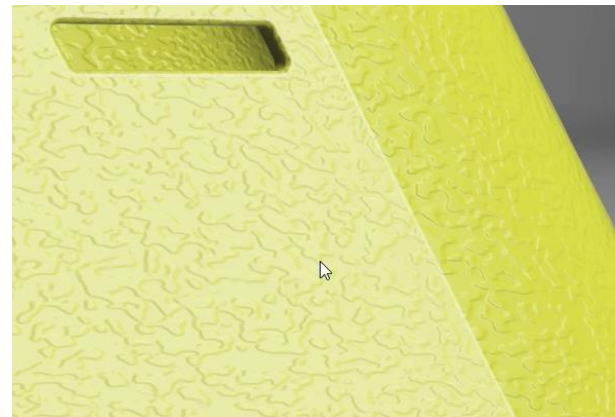
14. Click Setup> Appearance.

Figure 14. Open the Appearance tool

**15.** Notice the many types of appearances used in this design.

Figure 15. Explore the design's appearances

16. The Plastic – Texture - Random appearance is applied to the saw's casing. Zoom in to the casing and notice that there is a bump map texture associated with this material.
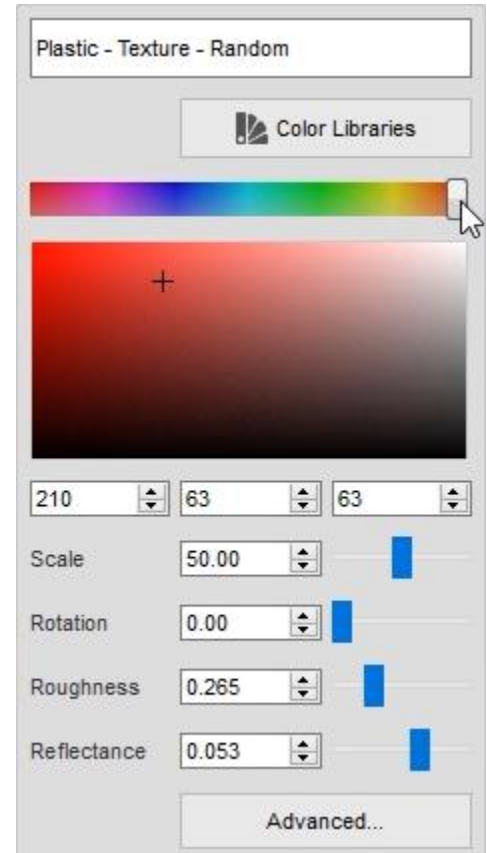

Figure 16. Inspect the appearance

17. The texture can be edited; right-click the texture and choose Edit.

Edit
Duplicate
Select Objects Ap
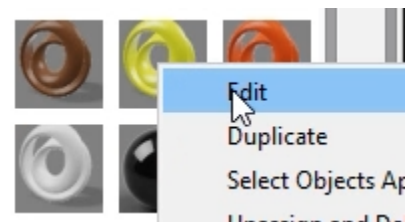
Figure 17. Edit the texture

18. Move the slider and notice the saw casing's color changes. After you choose the color you like, click the dialog's Advanced.

Figure 18. Edit the texture's color

19. Explore the Material Editor dialog and notice the many ways you can customize Fusion 360's materials. Cancel the Material Editor dialog, then close the Appearance dialog. Save the file and continue to the next module.
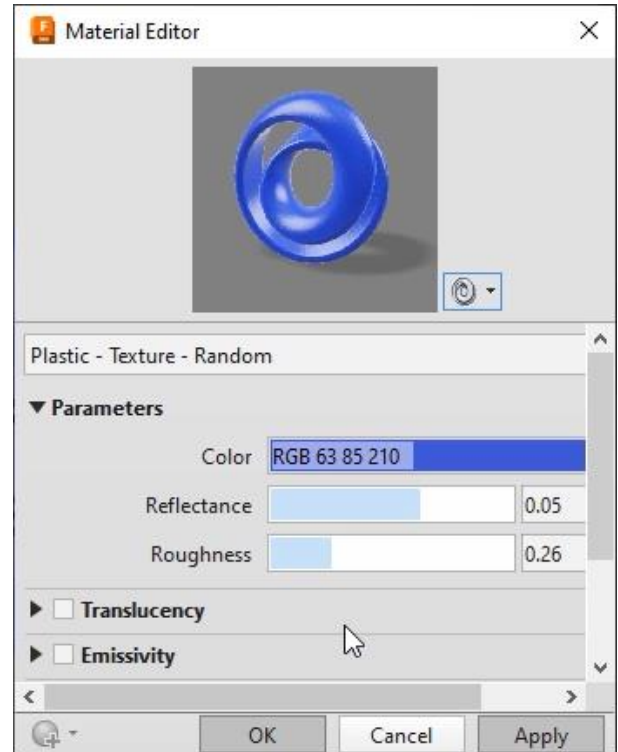
Figure 19. Explore the advanced options for customizing appearances