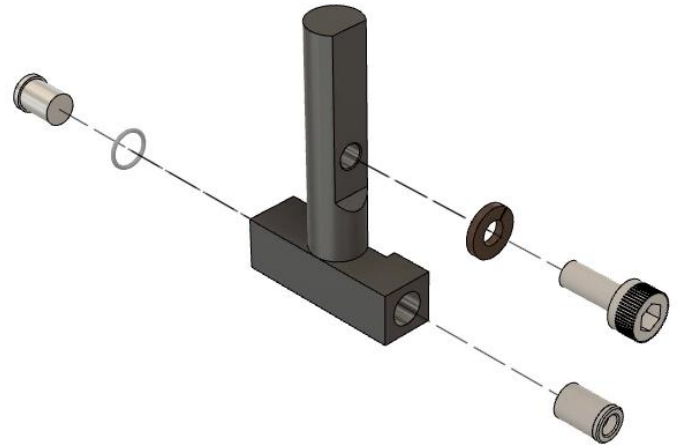


## Explode a 3D model for a drawing

In this module, you'll explode an assembly's components and animate the explosion.

### Learning objectives:

- Create an exploded view.
- Transform components.



The completed exercise

1. Upload and open the supplied *blade guard assembly.f3d* file.



Figure 1. Open the supplied file

2. Explore the Browser and notice that the file does not have any components, only bodies.



Figure 2. Explore the file

3. Before the model can be exploded, the bodies need to be converted to components. Select all the bodies, right-click them, then choose Create Components from Bodies. The bodies are removed from the Bodies folder and are converted into components with the same name.



Figure 3. Convert the bodies to components

4. Navigate to the Animation workspace.

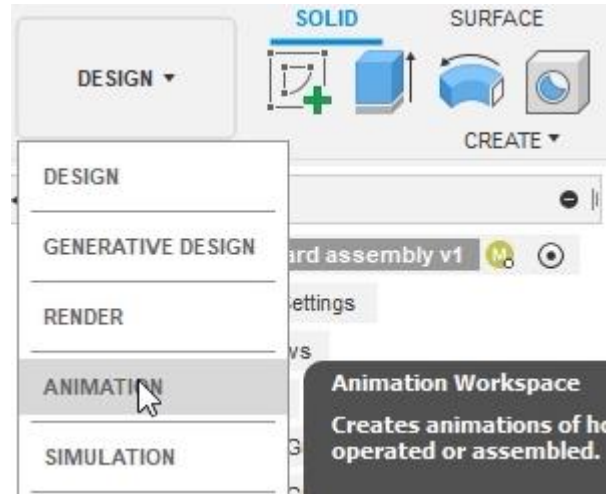


Figure 4. Navigate to the Animation workspace

5. The animation timeline at the bottom of the screen will record everything you do, such as moving components.

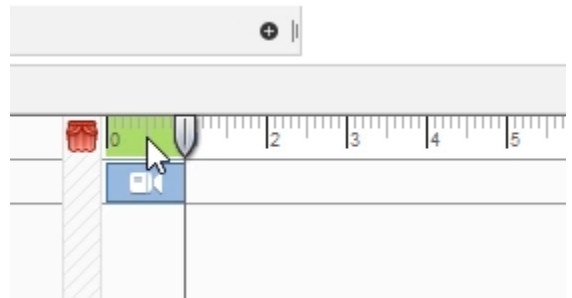


Figure 5. Inspect the timeline

6. Drag the timeline's play head to the two second mark, then rotate the model. Notice that a new icon is added to the timeline as you rotate the model.



Figure 6. Move the timeline marker and rotate the model

7. Press Play at the bottom of the screen to play the animation. Notice that Fusion 360 recorded you reorienting the model.



Figure 7. Press Play

8. Select the timeline's items, then press Delete.

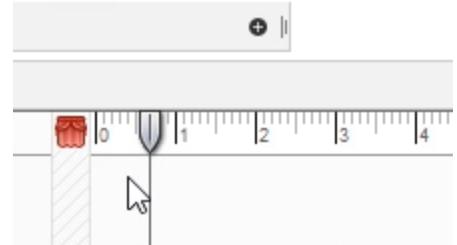


Figure 8. Delete the timeline's movements

9. Drag the timeline's play head to the Scratch Zone shown in the image on the right. You can now reposition the model without the movements being recorded. Position the model in the center of the Canvas.

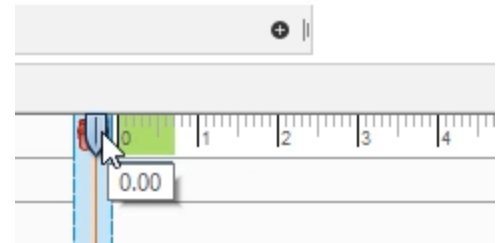


Figure 9. Drag the play head to the Scratch Zone

10. Drag the play head out to the two second mark.

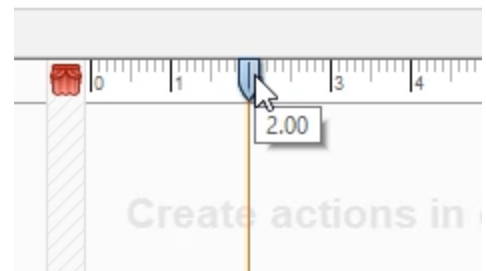


Figure 10. Move the play head out of the Scratch Zone

11. Expand the Transform group's menu and explore the options you have for exploding the components. After you finish exploring options, click Transform > Transform Components.

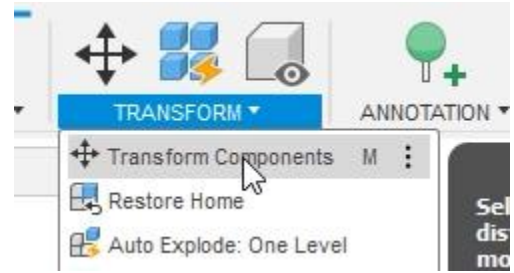


Figure 11. Open the Transform Components tool

12. Expand the Browser and select the Blade Guard Base Rivet component.



Figure 12. Choose the component you want to move

- 13.** Use the on-screen manipulator to drag the components 50 mm away from its original position.

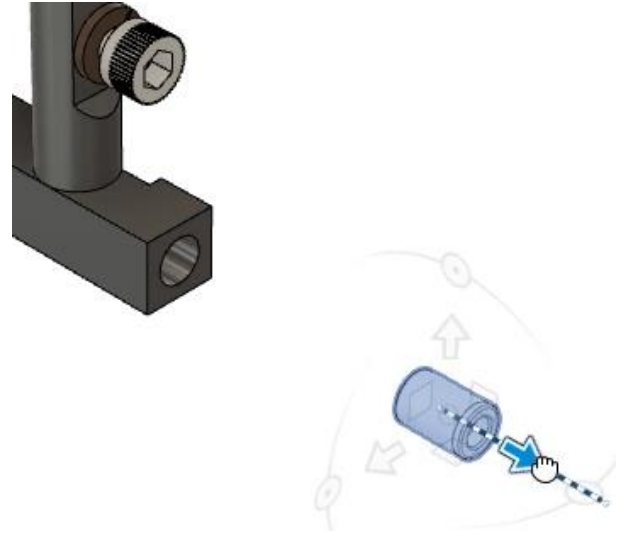


Figure 13. Move the component

- 14.** Activate the dialog's Trail Line Visibility option and notice that a Trail line is added to the Canvas area to describe the component's travel path. Click in an open area of the canvas to deselect the current component.

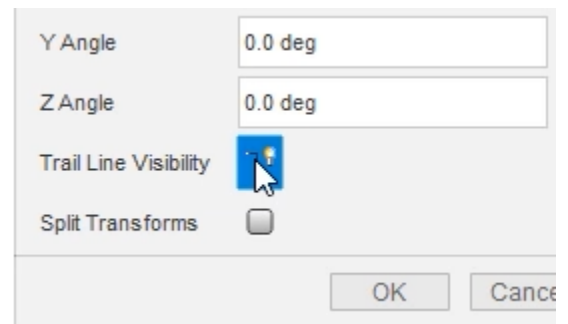


Figure 14. Activate the Trail Line Visibility option

- 15.** If you wish, move the play head to a new position in the timeline.

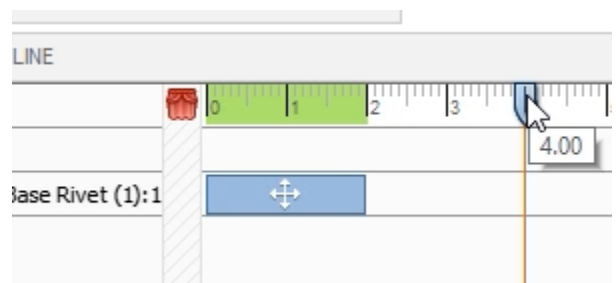


Figure 15. Move the play head

- 16.** Click the gear icon at the bottom of the screen and notice that you can customize how the movements will happen. They can all start at the same time, overlap slightly, or happen sequentially.

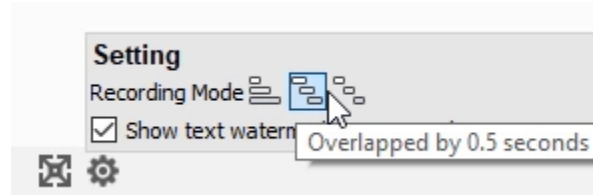


Figure 16. Explore the timeline's settings

- 17.** Select the Browser's Blade Guard Bolt and Blade Guard Lock Washer components. Holding Ctrl (Windows) or Command (MacOS) will allow you to select multiple components. Use the on-screen manipulator to drag the selection away from the post. Activate the dialog's Trail Line Visibility option.

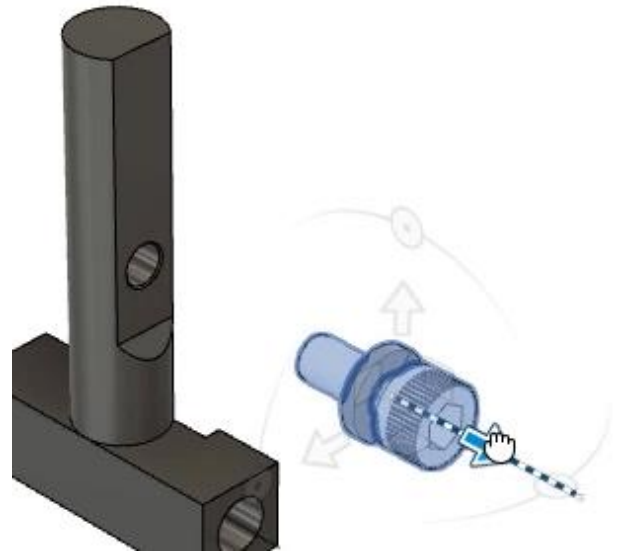


Figure 17. Move the components

- 18.** Click in an open area of the canvas to deselect the components, then select the Blade Guard Bolt component and drag it away from the Blade Guard Lock Washer component.

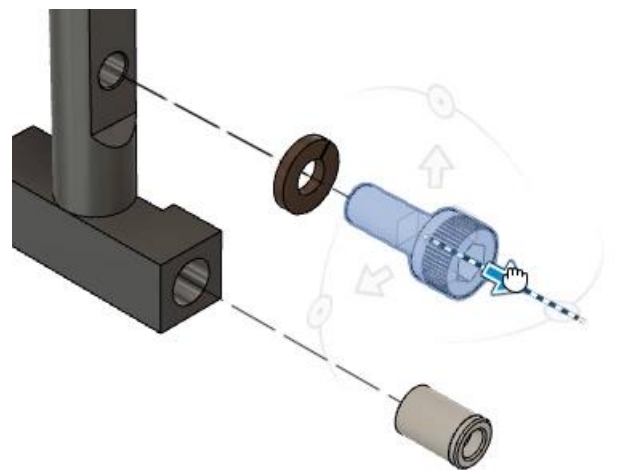
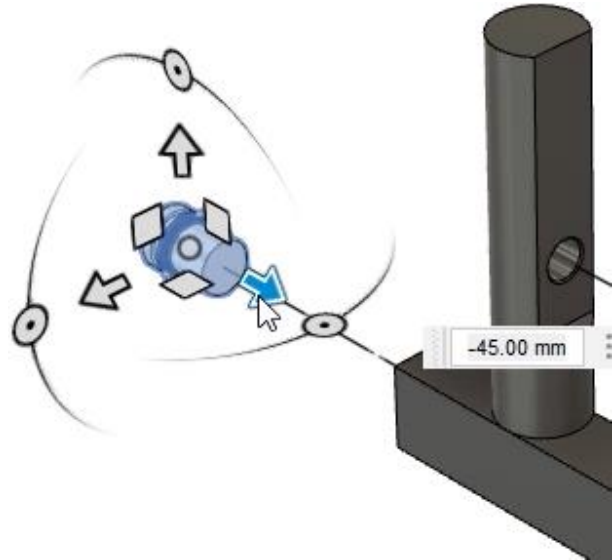


Figure 18. Move the component

**19.** Click in an open area of the canvas to clear the current selection, then select the Browser's Blade Guard Washer and Blade Guard Base Pin components. Use the on-screen manipulator to drag them away from the post. Activate the dialog's Trail Line Visibility option.



*Figure 19. Move the components*

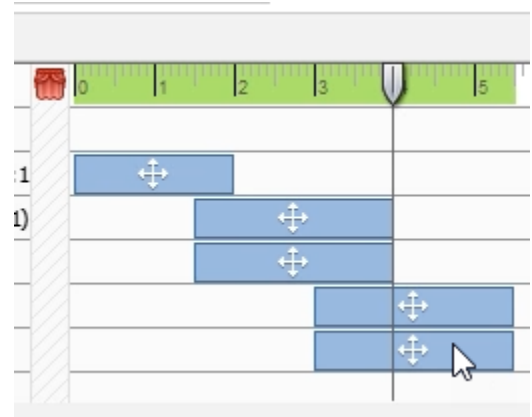
**20.** Click to clear the selection, then select the Blade Guard Base Pin component and move it away from the Blade Guard Washer component. OK the dialog.



*Figure 20. Move the component*



**21.** The movements can be repositioned after they are recorded. Click and drag the movements to a new timeline position, then press Play to animate the explosion.



*Figure 21. Reposition the timeline movements and press Play*

**22.** If you need to create a video of the animation, click Publish > Publish Video. Save the file and continue to the next module.



*Figure 22. Create a video of the animation*