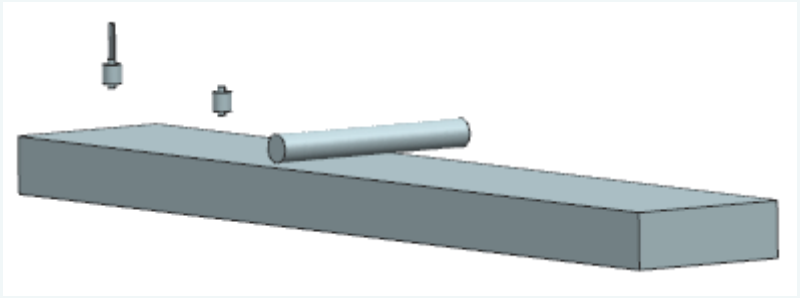
Exchange rigid bodies during a simulation

You will use the collision sensor to trigger the exchange of one rigid body for another. You will use an object source to repeat the exchange based on time intervals. You can use this to simulate a manual station in a manufacturing facility.

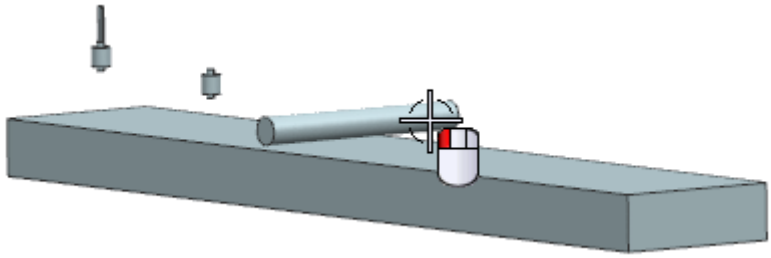
1. Open **mcd01_conveyor_system_a**.



2. Run the simulation to see the results and then stop the simulation.

3. Choose **Home** tab→**Electrical** group→**Collision Sensor**  .

4. In the graphics window, select **MCD01_RECTANGLE_SINK**.



5. In the **Collision Sensor** dialog box, set the following:

   Shape group

   - **Collision Shape** = **Box**

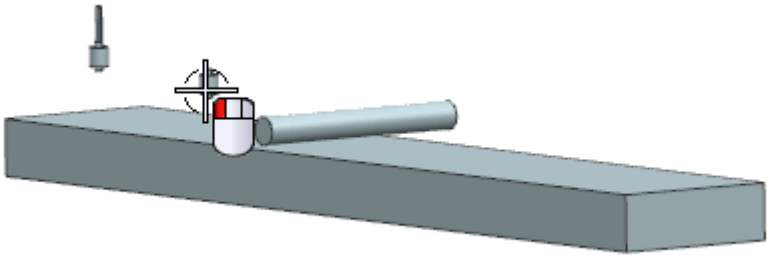
   Name group

   - **Name** = **exchange trigger**

6. Click **OK**.

7. Choose **Home** tab→**Mechanical** group→**Object Source**  .

8. In the graphics window, select **Rigid Body : motor**.



9. In the **Object Source** dialog box, set the following:

   Copy Event group

   - **Trigger** = **Time Based**
   - **Time Interval** = **5**

   Name group

   - **Name** = **part source**

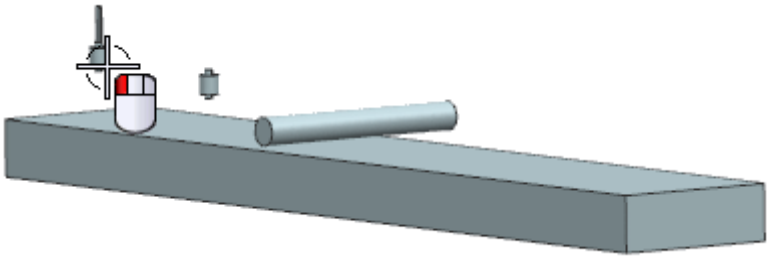
10. Click **OK**.

11. Choose **Home** tab→**Mechanical** group→**Object Transformer**  .

12. In the graphics window, select **Collision Sensor : exchange trigger**.

13. In the **Transform To** group, highlight **Select Rigid Body**  .

14. In the graphics window, select **Rigid Body : motor assembly**.



15. In the **Name** box, type **manual assembly station**, and then click **OK**.

16. Run the simulation to see the results, and then stop the simulation.

17. Close the part.

You completed the activity.