

KETIV

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```
Sub InsertHatchesIntoAssembly()  
  ' This code places the hatch into our assembly (up to two times), if applicable  
  ' Hatches are always place on the top of the tank body assembly, at either end of the tank  
  ' This set of commands is to place the front hatch, if the user has opted to include one  
  If F_HATCH Then  
    ' In order to locate where to put the hatch assembly in our master assembly file, we will use matrix positioning  
    ' See presentation included in this kit that explains how matrix positioning works - it's easier than it looks or sounds  
    Dim matrixG = ThisDoc.Geometry.Matrix(1, 0, 0, 10.625, 0, 1, 0, TANK_OD / 2 + 3, 0, 0, 1, TANK_L / 2 - F_HATCH_OFF - 21.5, 0, 0, 0, 1)  
    ' This can be taken from an iLogic snippet, and is used to insert components into assemblies  
    ' This code inserts the hatch assembly into our master tank assembly file  
    ' Instead of placing at the origin, it places it based on our input matrix we created (matrixG)  
    ' Note that we are grounding all geometry, and we are not using any constraints to place the hatch  
    Dim componentG = Components.Add("Front Hatch:1", LIBRARY_PATH & "Hatches\20 Inch\MW-SW 103.iam", _  
                                   position := matrixG, grounded := True, visible := True, appearance := Nothing)  
  End If  
  
  If R_HATCH Then  
    ' In order to locate where to put the hatch assembly in our master assembly file, we will use matrix positioning  
    ' See presentation included in this kit that explains how matrix positioning works - it's easier than it looks or sounds  
    Dim matrixH = ThisDoc.Geometry.Matrix(-1, 0, 0, -10.625, 0, 1, 0, TANK_OD / 2 + 3, 0, 0, -1, -TANK_L / 2 + R_HATCH_OFF + 21.5, 0, 0, 0, 1)  
    ' This can be taken from an iLogic snippet, and is used to insert components into assemblies  
    ' This code inserts the selected manway assembly into our master tank assembly file  
    ' Instead of placing at the origin, it places it based on our input matrix we created (matrixH)  
    ' Note that we are grounding all geometry, and we are not using any constraints to place the manway  
    Dim componentH = Components.Add("Rear Hatch:1", LIBRARY_PATH & "Hatches\20 Inch\MW-SW 103.iam", _  
                                   position := matrixH, grounded := True, visible := True, appearance := Nothing)  
  End If  
End Sub
```