



Manufacturing Innovation. **Together.**

```
Sub CreateAndConfigureGunline()  
    ' This code creates a new copy of the gunline assembly template in our new folder structure  
    ' It then updates the gunline geometry based on values we pass to the assembly  
    Dim strNewGunlineFilename As String  
    ' This string represents the new name of our unique, copied gunline assembly file  
    strNewGunlineFilename = PROJECT_PATH & PROJECT_ID & "\Gunline Assy\Gunline Assy - " & PROJECT_ID & ".iam"  
  
    ' We first check to make sure the gunline assembly file has not been previously created  
    ' If it hasn't yet been created, we do a Windows Copy operation to make a new copy in our new folder  
    If System.IO.File.Exists(strNewGunlineFilename) = False Then  
        System.IO.File.Copy(TEMPLATE_PATH & "Gunline Assy\Gunline Assy.iam", strNewGunlineFilename)  
    End If  
  
    ' In order to locate where to put the gunline 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 matrixC = ThisDoc.Geometry.Matrix(-1, 0, 0, GUNLINE_HOR_OFF, 0, 1, 0, -GUNLINE_VERT_OFF, 0, 0, -1, TANK_L / 2 + DISH_DEPTH, 0, 0, 0, 1)  
    ' This can be taken from an iLogic snippet, and is used to insert components into assemblies  
    ' This code inserts our newly created gunline assembly into our master tank assembly file  
    ' Instead of placing at the origin, it places it based on our input matrix we created (matrixC)  
    ' Note that we are grounding all geometry, and we are not using any constraints to place the assembly  
    Dim componentC = Components.Add("Gunline Assy:1", strNewGunlineFilename, position := matrixC, grounded := True, visible := True, appearance := Nothing)  
    ' These statements pass parameters from our master assembly file into the gunline assembly file  
    Parameter("Gunline Assy:1", "TANK_OD") = TANK_OD  
    Parameter("Gunline Assy:1", "TANK_L") = TANK_L  
    Parameter("Gunline Assy:1", "PROJECT_ID") = PROJECT_ID  
    Parameter("Gunline Assy:1", "PROJECT_PATH") = PROJECT_PATH  
    Parameter("Gunline Assy:1", "SHELL_Q_1") = SHELL_Q_1  
    Parameter("Gunline Assy:1", "SHELL_Q_2") = SHELL_Q_2  
    Parameter("Gunline Assy:1", "GUNLINE_SIZE") = GUNLINE_SIZE  
    Parameter("Gunline Assy:1", "GUNLINE_F_FL_TYPE") = GUNLINE_F_FL_TYPE  
    Parameter("Gunline Assy:1", "GUNLINE_R_FL_TYPE") = GUNLINE_R_FL_TYPE  
    Parameter("Gunline Assy:1", "GUNLINE_F_FL_END") = GUNLINE_F_FL_END  
    Parameter("Gunline Assy:1", "GUNLINE_R_FL_END") = GUNLINE_R_FL_END  
    Parameter("Gunline Assy:1", "DISH_DEPTH") = DISH_DEPTH  
    ' Once all the parameters are updated in the gunline assembly file, we want to run its creation rule  
    ' This will allow the gunline assembly to update all its own parts and components itself  
    iLogicVb.RunRule("Gunline Assy:1", "Set Gunline Size")  
    iLogicVb.RunRule("Gunline Assy:1", "Calculate Gunline Spacing")  
    iLogicVb.RunRule("Gunline Assy:1", "Push Parameters")  
    iLogicVb.RunRule("Gunline Assy:1", "Spray Nozzle Length")  
    iLogicVb.RunRule("Gunline Assy:1", "Assemble Flanges")  
End Sub
```