

Q: How to create a coil model having a structure other than a spiral?

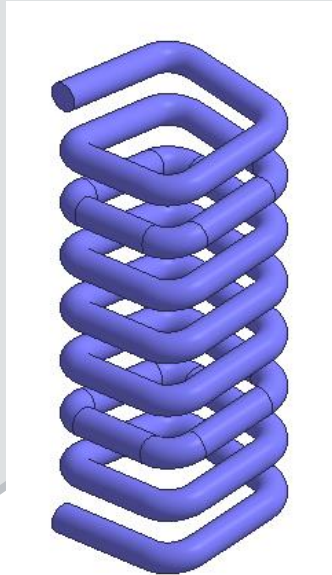
A:

1. Create a coiled path of a wire body.
2. Create a cross section of the coil.
3. Sweep the cross section along the path.

Please refer to the Femtet help menu below for sweeping a body along a path.

Home>Modeling>Drawing Process>How to Modify Objects>Deformation>Sweep Bodies along the Path

Coiled Model Having Structure Other Than Spiral

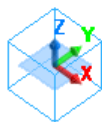
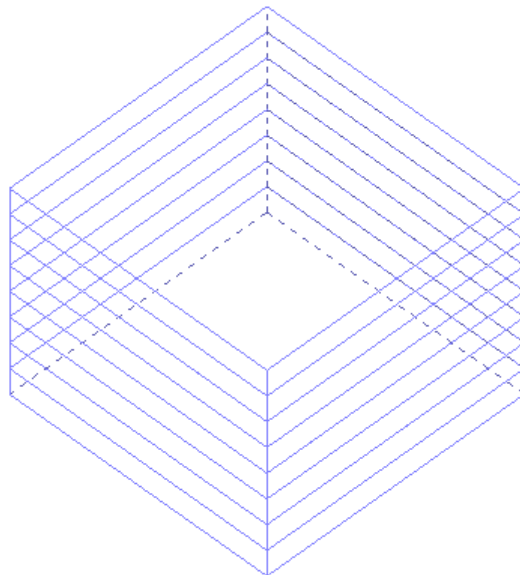


Typical spiral coil body are created by sweeping a sheet body of a cross section shape along a spiral wire body.

In this example, a coil body is not a spiral coil body, but appears to be formed such that the wire is wound around a cuboid having fillets.

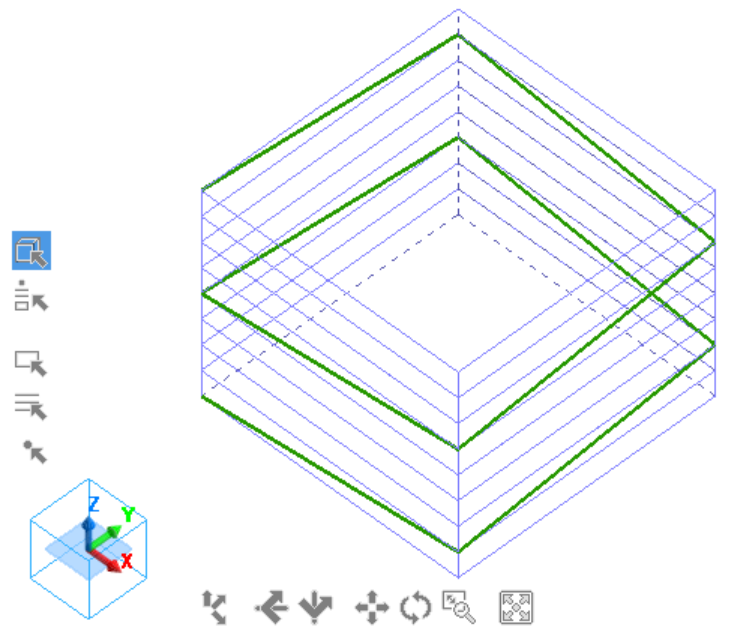
The key to creating the coil body is how to create the wire body through which the cross section is swept.

Step 1 of Model Creation



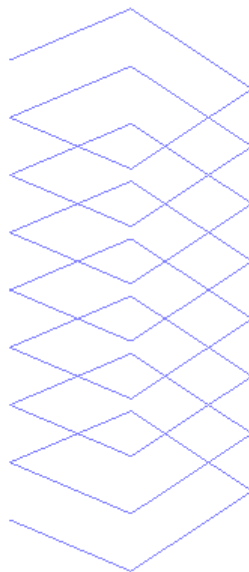
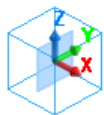
Create a basic cuboid for the coil and make copies of it in the Z direction.

Step 2 of Model Creation



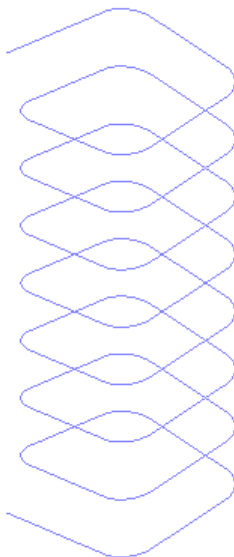
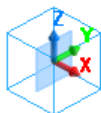
Create a framed coil structure by connecting the vertices of the cuboids.

Step 3 of Model Creation



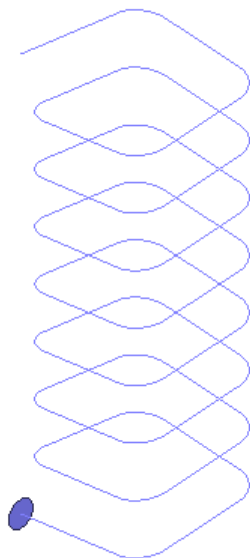
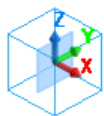
Creating copies of the framed coil structure in the Z direction achieves the intended 3D framed coil structure.

Step 4 of Model Creation



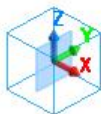
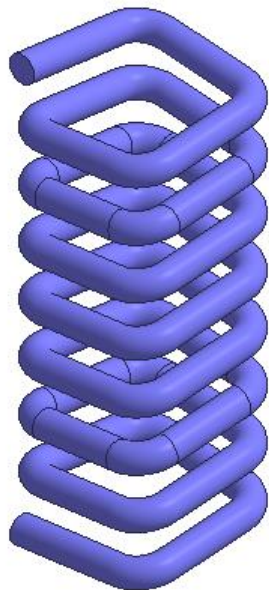
Add fillets on the corners.

Step 5 of Model Creation



Create a sheet body of a cross section shape.

Step 6 of Model Creation



Sweep the sheet body along the framed coil structure to create a coil body.