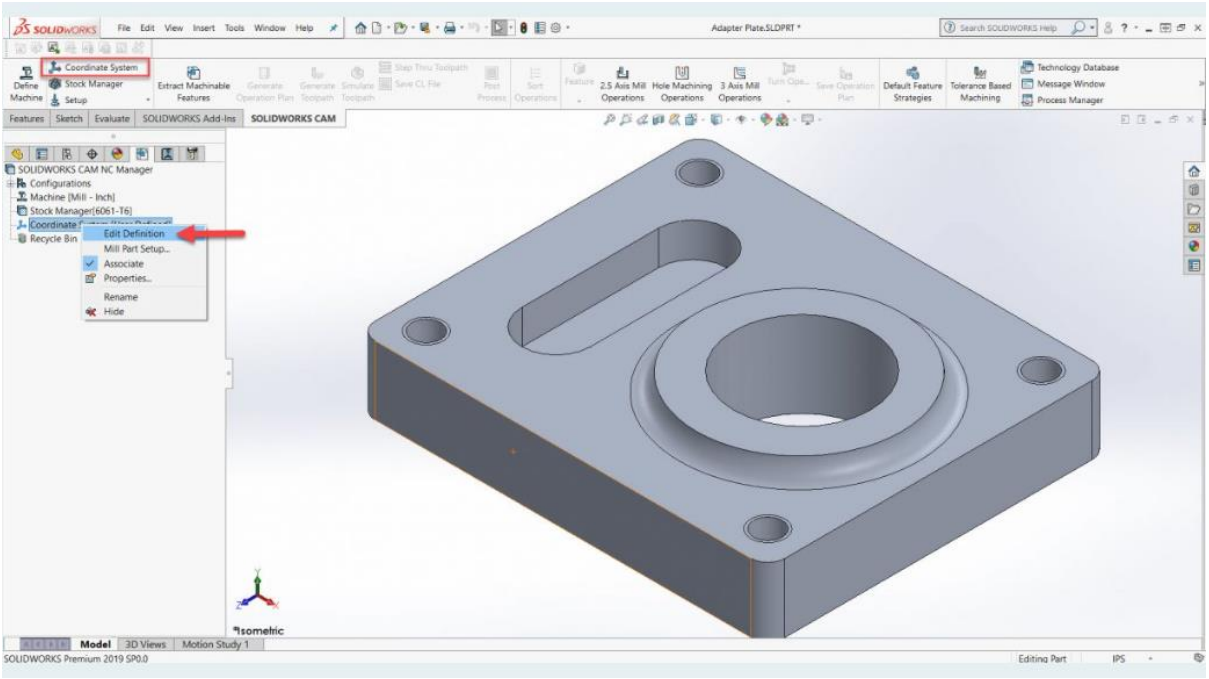
4.0 Defining Coordinate System

It is critical that the axis of the CNC machine matches the part to be machined.

In the SOLIDWORKS CAM Feature Tree we can define a Coordinate System using any of the following three methods:

1. By clicking on the Coordinate System Icon in the Command Manager.
2. Selecting Coordinate System in the CAM Feature Tree, right-mouse button and select Edit Definition from the shortcut menu.
3. Double-click on Coordinate System in the CAM Feature Tree.



Define Coordinate System

In the Method pull down, we can select SOLIDWORKS Coordinate System to use an existing Coordinate System that matches our machine.

By selecting User Defined we can access the Coordinate System setup options in the CAM Feature Manager. Here we can choose any entity like this hole center and use the axis controls to properly align the axis to match your machine. In order to follow our machine we needed to adjust the Z axis by selecting an edge parallel to the required Z axis and reversing it's direction.

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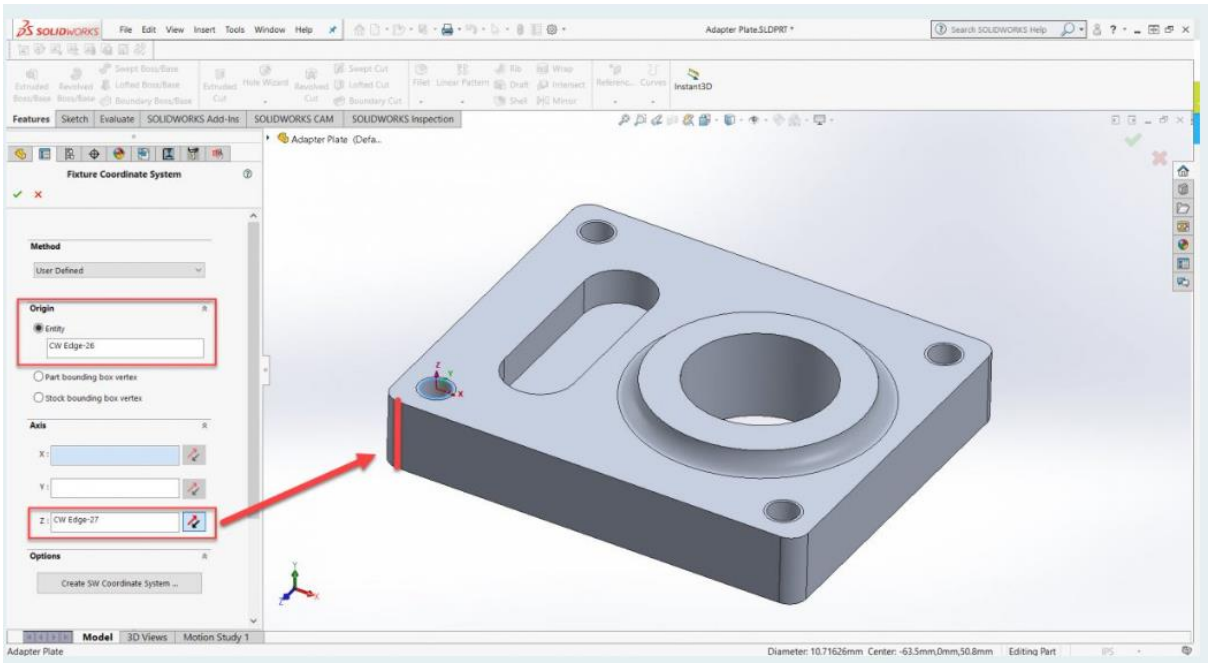
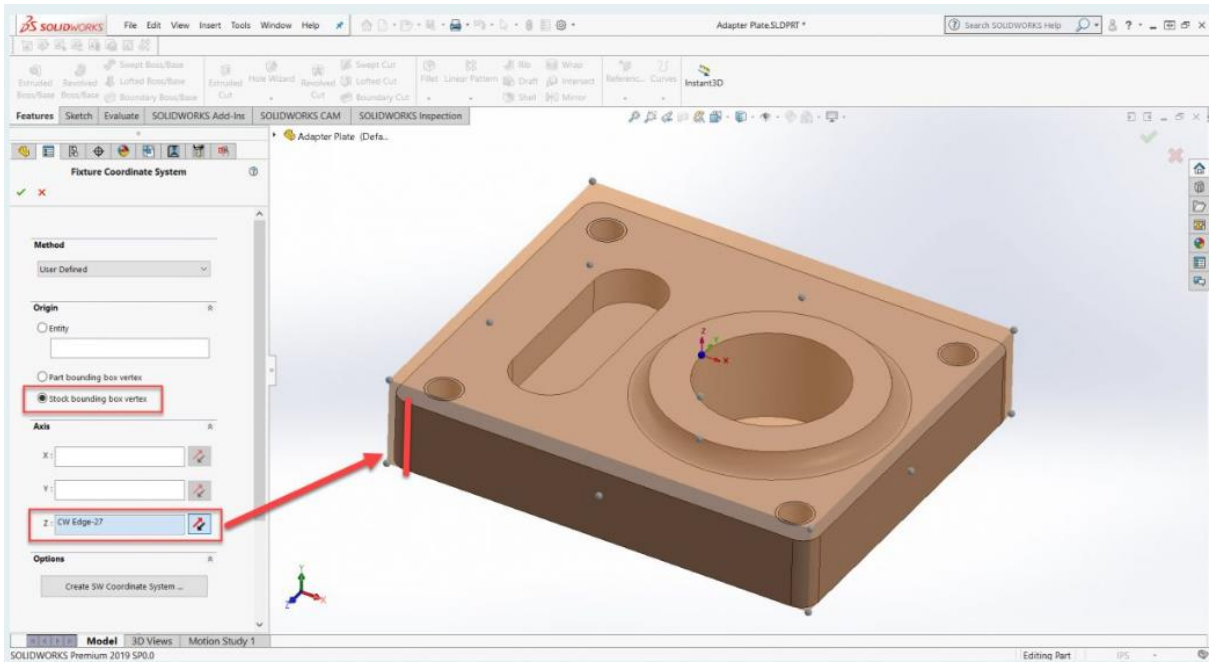


Coordinate System options

We may also use Part or Stock Bounding Boxes to position our Coordinate System on the grey vertices shown. In this case, we are using the top and centre of the stock. Double check that the axis is set correctly for your CNC Machine.



Stock Bounding Box Vertex