**Notes on 3D Camera Pose Estimation**

The angles of rotation of the c arm are not necessary, there might be a way to do without them.

We use the 0 degree photo for setting the y axis. The only label we need.

Input is the 9 other pictures which rotate in a plane about the axis of rotation of the c arm which is our world frame center. We don’t need all pictures.

We can’t manually select the color.

We segment the red circle and determine the centroid. But recall the projection will not be a circle in the image. We can check the roundness of the segmented circle.

We can check how good the segmentation is and discard the image if necessary.

Not all data is given is needed, for example the PnP would need the intrinsic parameters but not the other method.

The red circle diameter can be used given its an exact measure. WE NEED IT FOR SCALE (if not using camera intrinsic parameters?)

Radius of rotation it is not needed, it can be used to solve the problem. It can also be calculated with some methods.