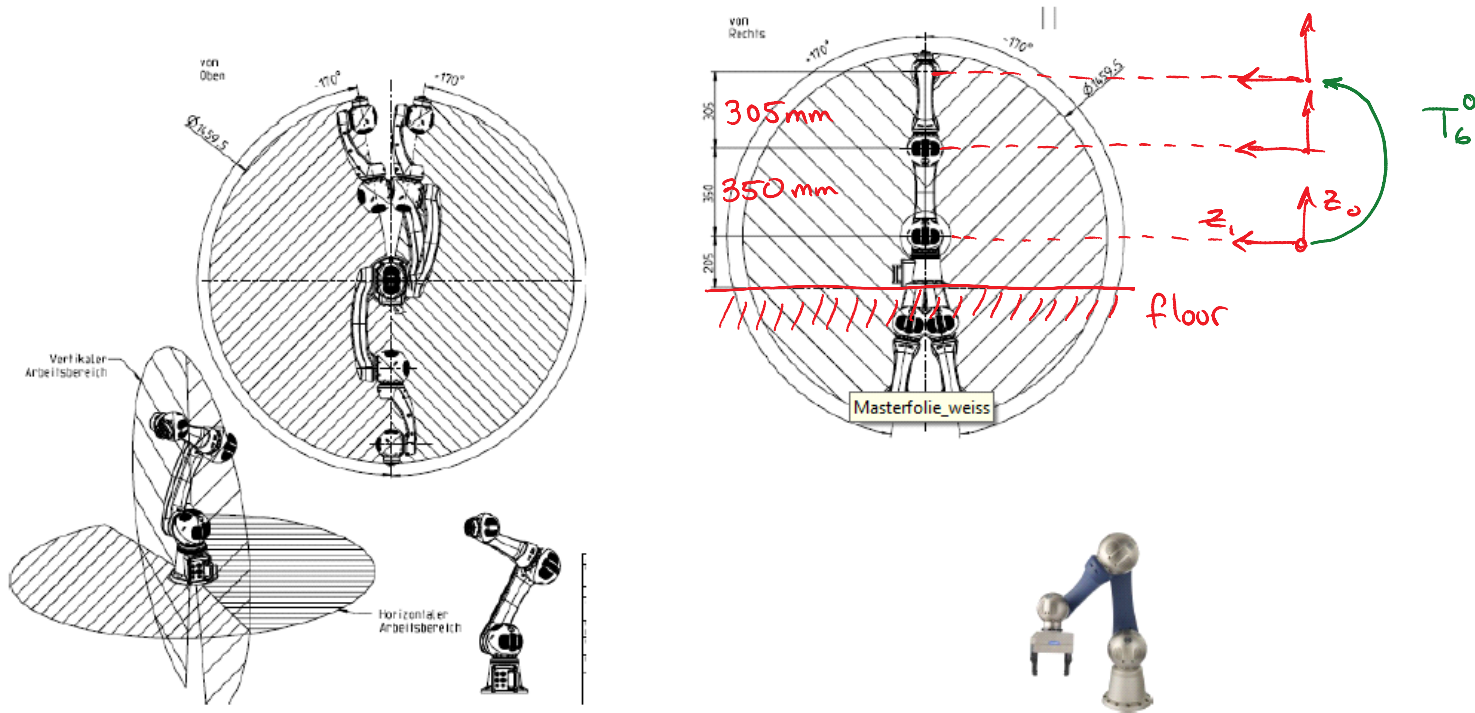① Construct the forward kinematic map for the Schunk Powerball Arm.

② Solve the inverse kinematics problem in closed form.

Remember: If you use standard DH parameters, the first axis of rotation is $\hat{z}_0$.

Assume: When arm is upright (as in figure above with red annotations), then the points of intersection of the joints in the 3 spheres lie on a vertical line through the spheres' centers.