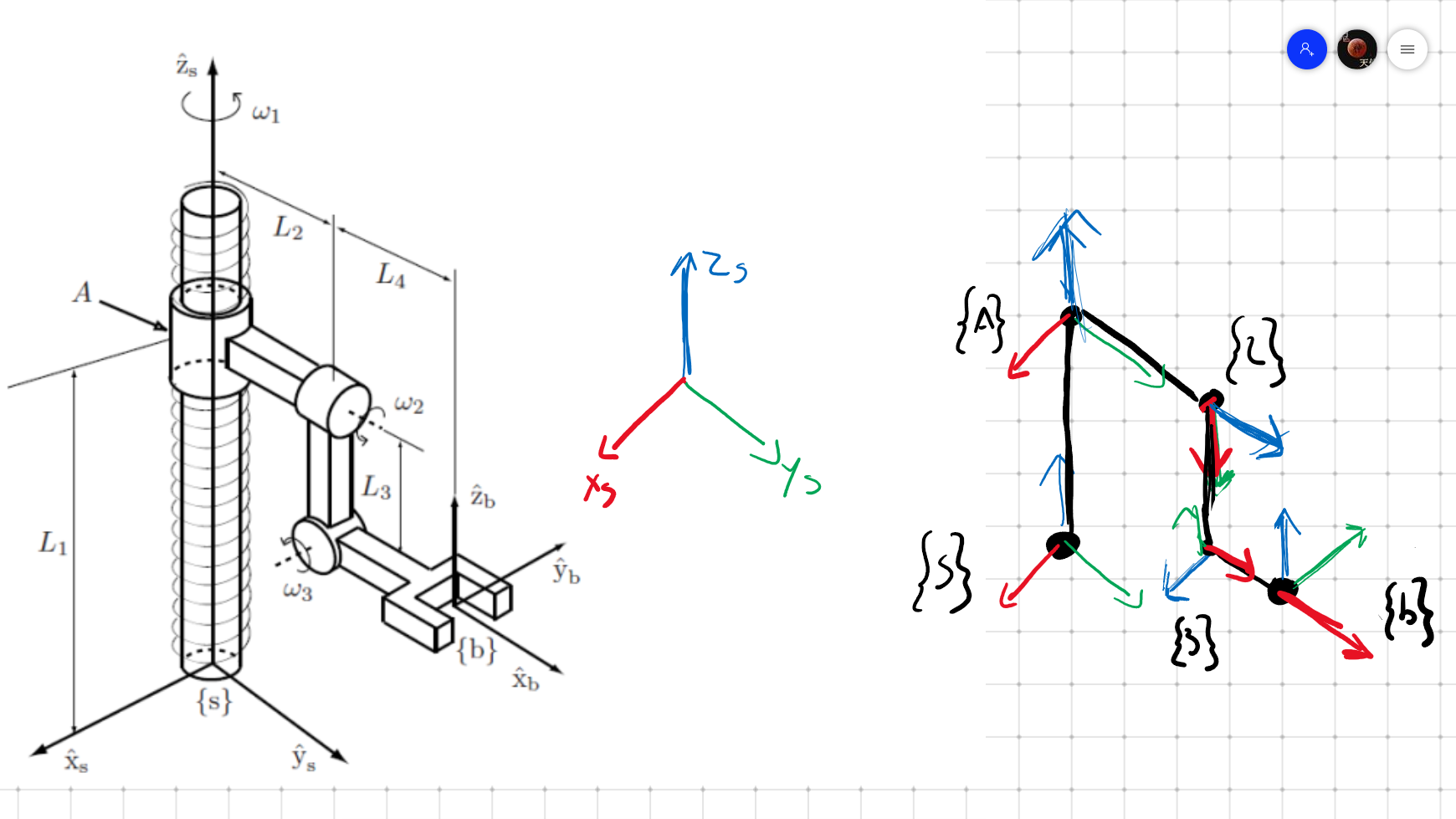
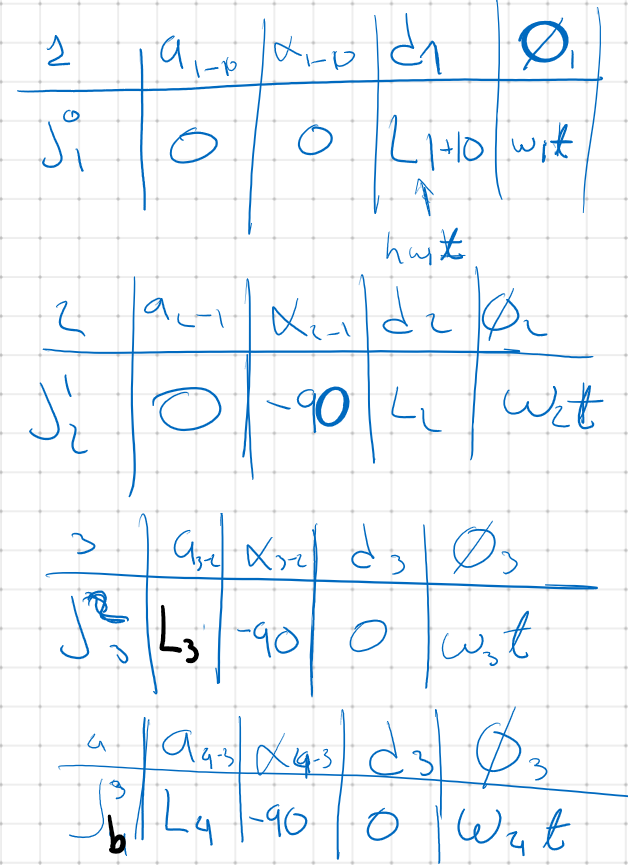
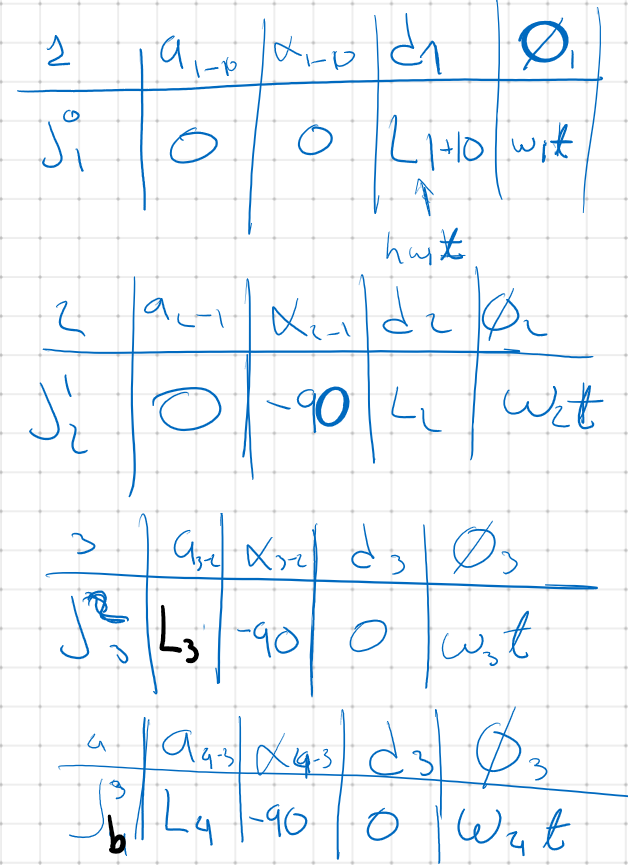
Denavit-Hartenbergh Solution notation

The 4-variable notation for every joint becomes



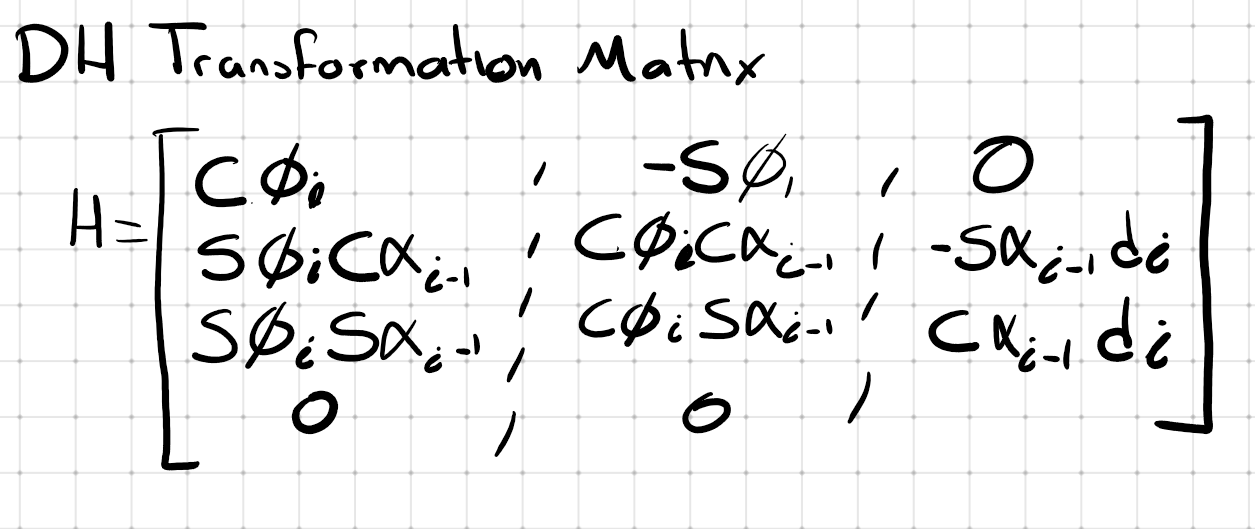


W is the constant angular velocity of the given joint

t is the time step over which we calculate

h is the pitch of the lead screw

The general D-H homogeneous transformation matrix is:



Where C represents the Cosine of the following angle, S represents the sine of the following angle. Filling for the matrix 4 times with each of the joint parameters gives the matrix transformation for each of the 4 joints. Remembering that sind(-90)=-1, sind(90)=1, sind(0)=0, cosd(90)=0, cosd(-90)=0,

Multiply so {b}=DH1\*DH2\*DH3\*DH4 to get the homogeneous transformation from {S} to {b}. if t is the time step of increment t and you have n many steps, you will have n many DH results. This is only valid because the angular speed of every joint is constant

**THERE ARE OTHER WAYS TO SOLVE THIS USING THE SAME ASUMPTION OF:**

Angle=Angular Velocity x time step

**THAT ALLOW TO SOLVE THE PROBLEM USING EULER ROTATIONS AND SIMPLELINEAR TRANSLATIONS**