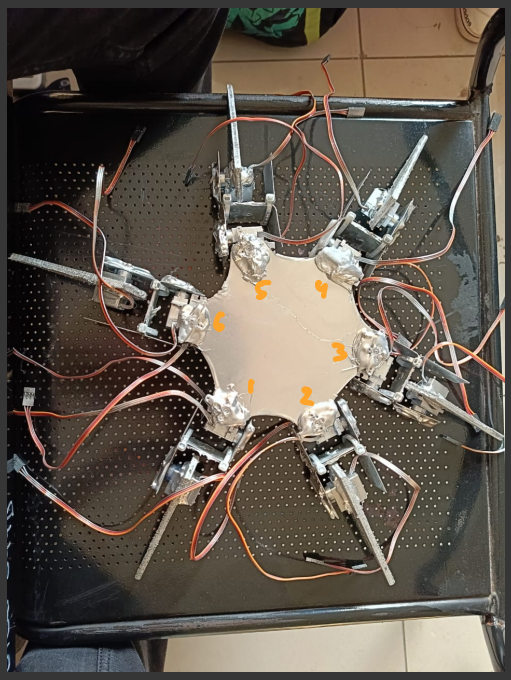
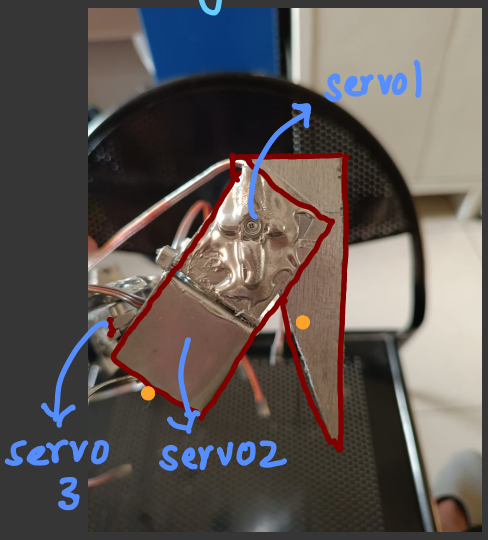
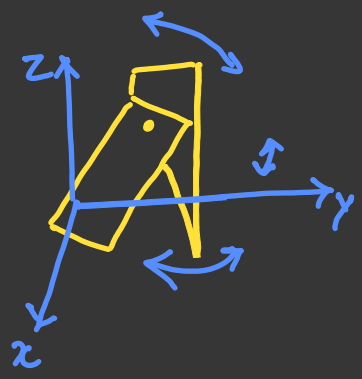
# Hexapod



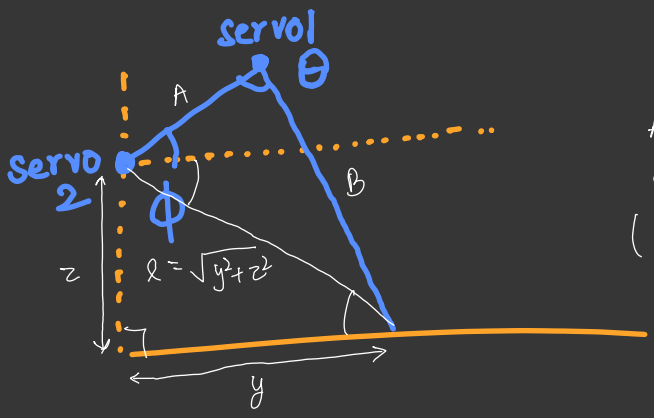

leg




3 degree of freedom



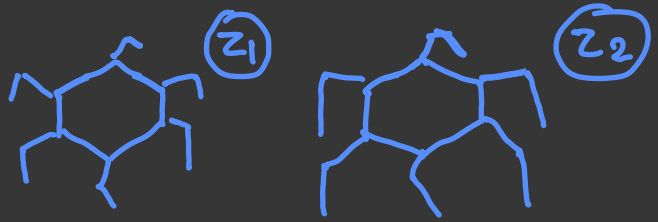

## LEG KINEMATICS



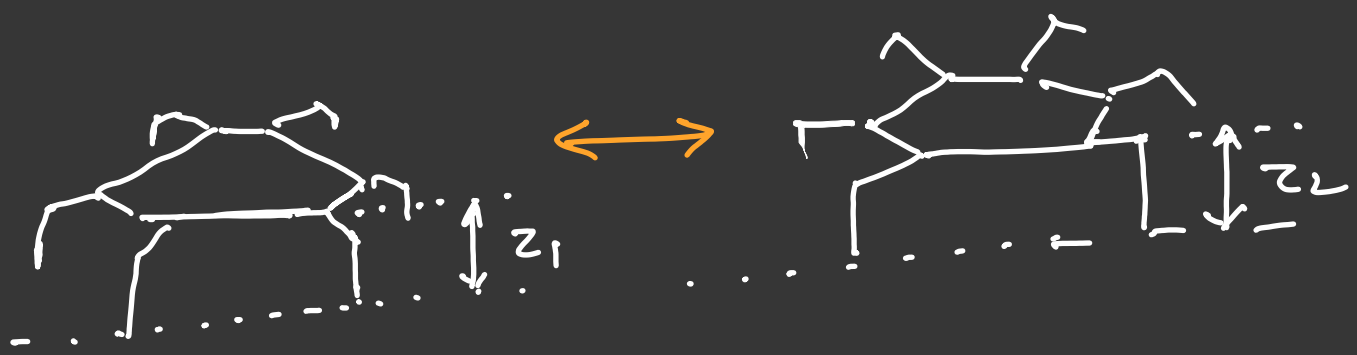

A and B are constants (dimensions of leg)

$$\theta = \cos^{-1}\left(\frac{-l^2+A^2+B^2}{2AB}\right) \qquad \phi = \cos^{-1}\left(\frac{-B^2+A^2+l^2}{2Al}\right) - \tan^{-1}\left(\frac{z}{y}\right)$$

- make hexapod sit and stand.



Basically x and y are constant we have to vary z and the work will be done.




So now lets jump to coding ...