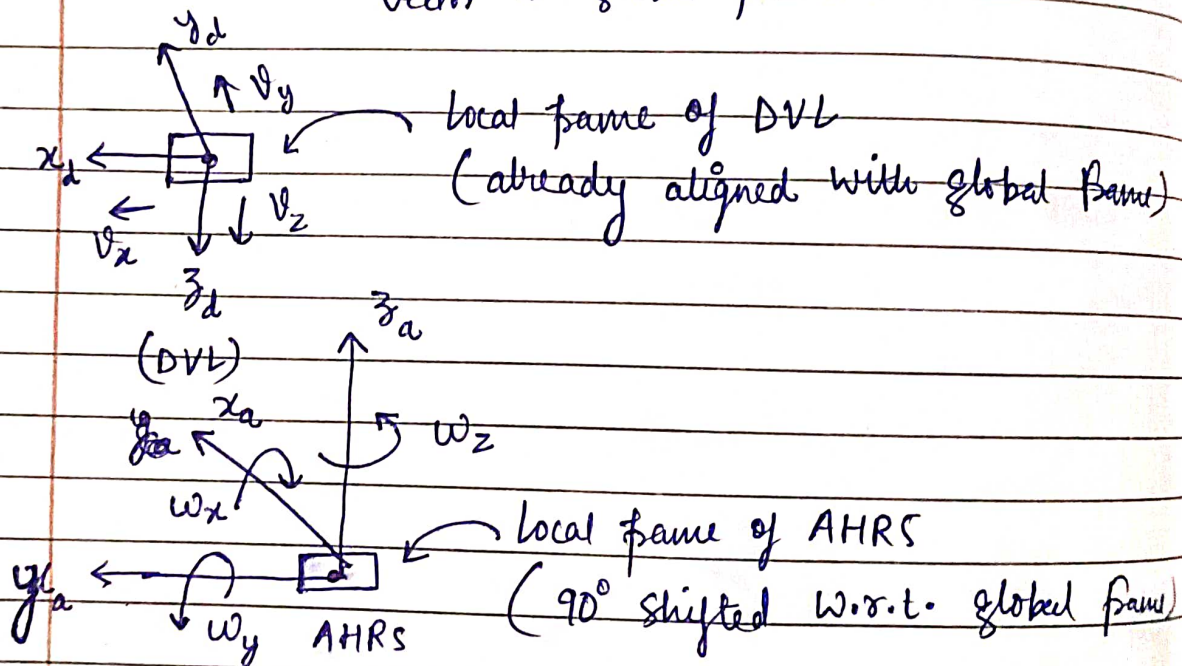


$\vec{\Delta X}_z = (\Delta x, \Delta y, \Delta z) \rightarrow$ offset vector in global frame.



$\vec{\omega}_{ahrs} = \begin{bmatrix} \omega_x \\ \omega_y \\ \omega_z \end{bmatrix}$ raw angular Velocity in the AHRS's local frame.

Corrected angular Velocity = ? (calculate this)

$\vec{\omega}_c =$ Corrected AHRS Angular Velocity = $\begin{pmatrix} \omega_{cx} \\ \omega_{cy} \\ \omega_{cz} \end{pmatrix}$

Corrected plant Vel = $\begin{pmatrix} v_{cx} \\ v_{cy} \\ v_{cz} \end{pmatrix} = \vec{v}_c$

$$\vec{v}_c = k \vec{v}_{new} - (\vec{\omega}_c \times \vec{\Delta x})$$



$$\vec{\Delta x} = \begin{pmatrix} \Delta x \\ \Delta y \\ \Delta z \end{pmatrix}$$