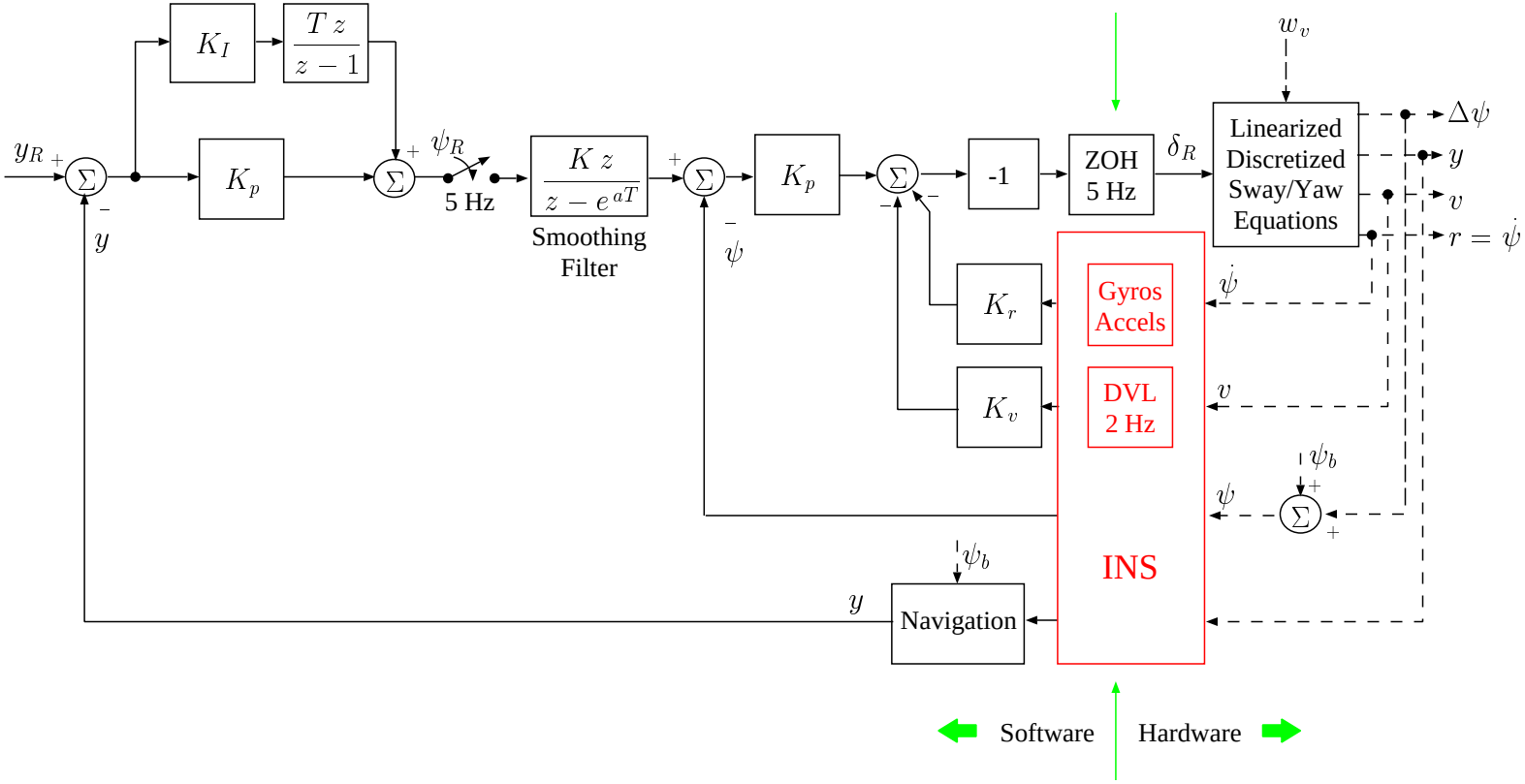
.


K_I
$\frac{T\,z}{z-1}$
y_R
K_p
ψ_R
5 Hz
$\frac{K\,z}{z-e^{aT}}$
Smoothing
Filter
K_p
-1
ZOH
5 Hz
δ_R
w_v
Linearized
Discretized
Sway/Yaw
Equations
$\Delta\psi$
y
v
$r=\dot{\psi}$
y
ψ
K_r
K_v
Gyros
Accels
DVL
2 Hz
$\dot{\psi}$
v
ψ_b
ψ
INS
ψ_b
y
Navigation
Software
Hardware