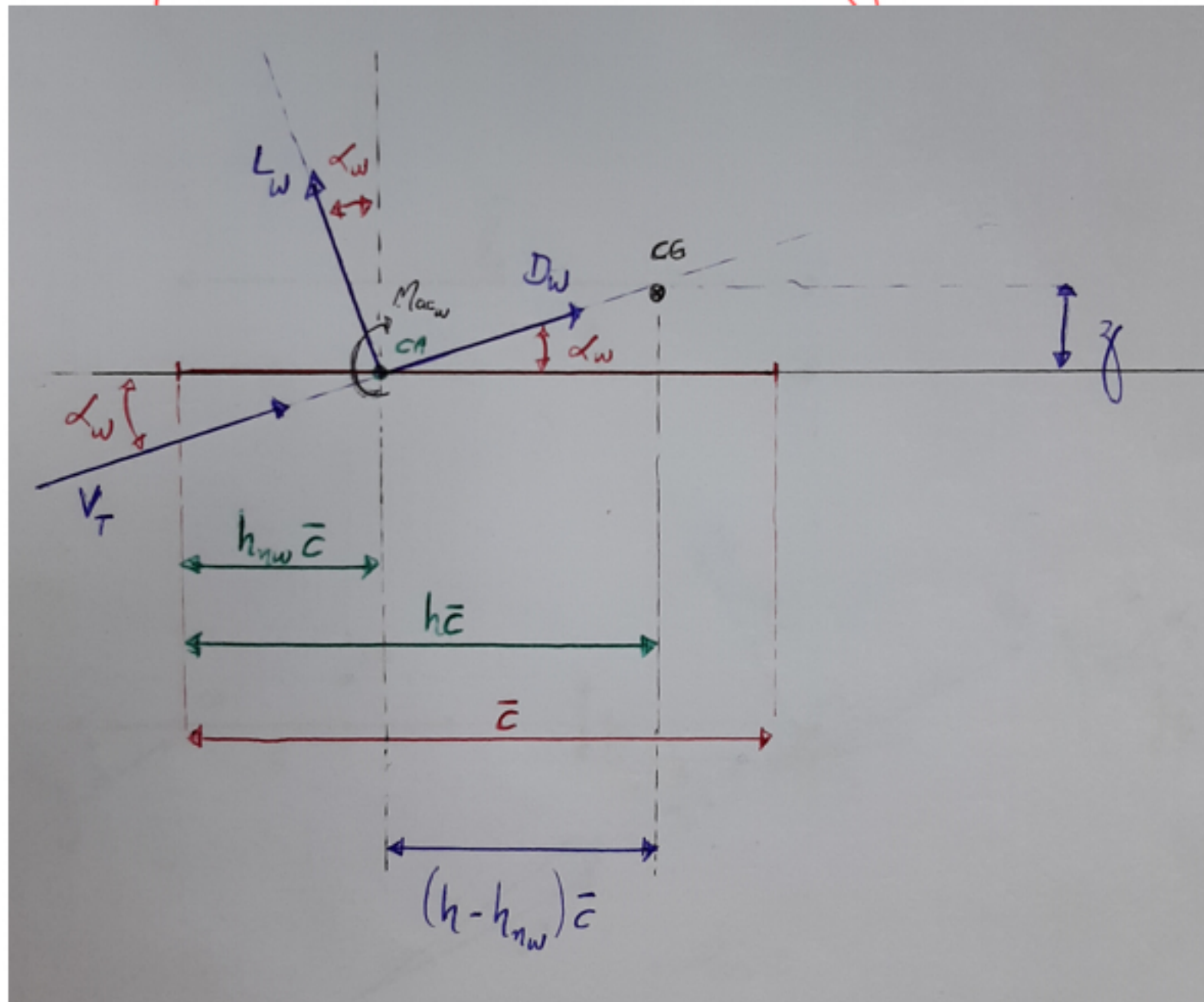


Momento de arfagem em torno do CG

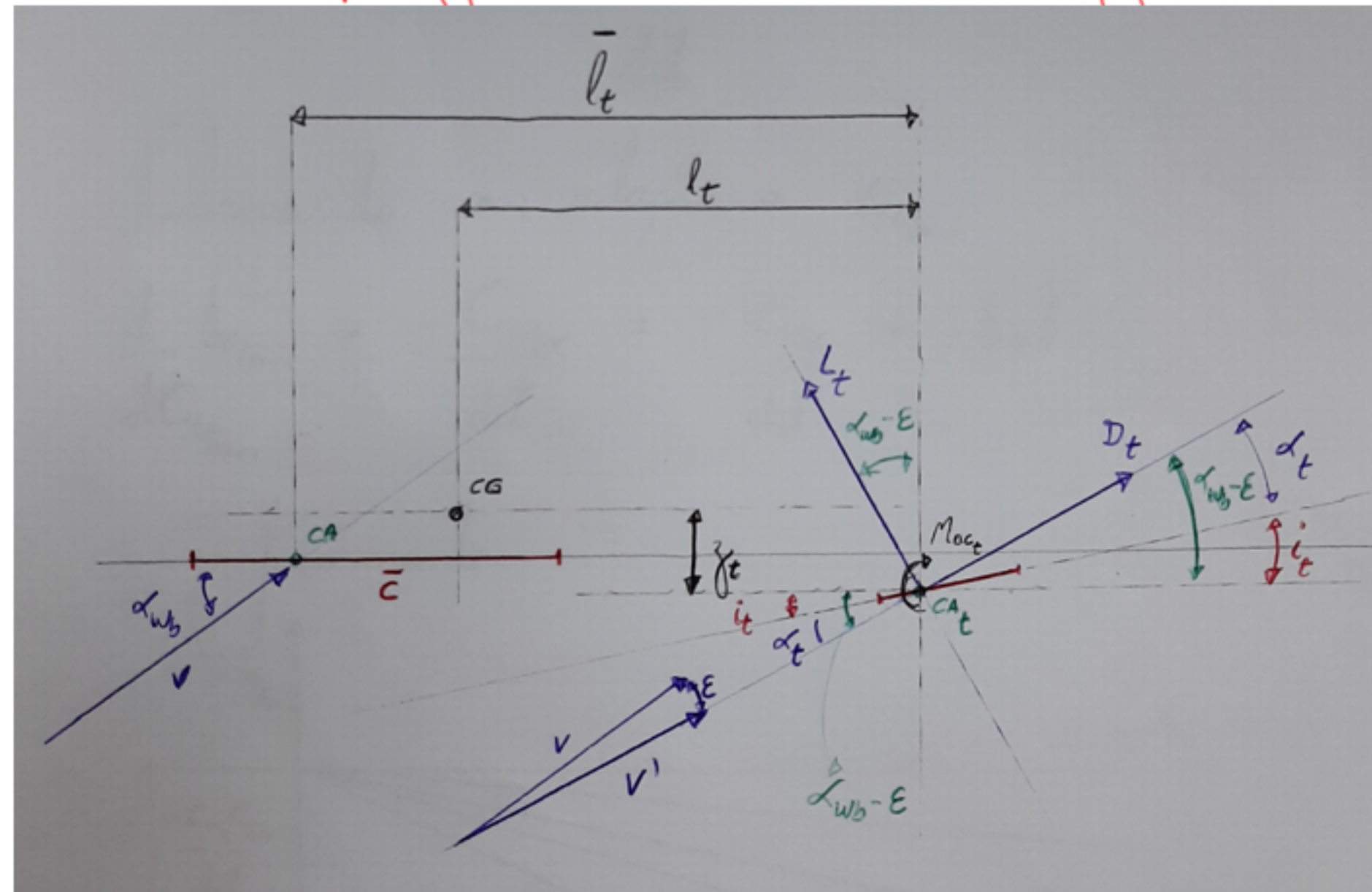


$$M_w = M_{acw}$$

$$+ (L_w \cos \alpha_w + D_w \sin \alpha_w) (h - h_{nw}) \bar{c}$$

$$+ (L_w \sin \alpha_w + D_w \cos \alpha_w) z$$

Momento de arfagem da empennagem em torno do CG



$$M_t = M_{ac_t} + l_t [L_t \cos(\alpha_{wb} - \epsilon) + D_t \sin(\alpha_{wb} - \epsilon)] \\ - j_t [-L_t \sin(\alpha_{wb} - \epsilon) + D_t \cos(\alpha_{wb} - \epsilon)]$$

Obs:  $\alpha_t = \alpha_{wb} - \epsilon - i_t$