

12. Starting with the joint space dynamics equation, derive the Cartesian space dynamic equation

$$Q = M\ddot{q} + C + G - F$$

⇓

$$g_E = M_x \dot{v} + C_x + G_x + F_x$$

↑ not the  $M_x$  in Corke's text

What are the definitions of  $M_x, C_x, G_x, F_x$  in terms of the original  $M, C, G, \& F$  ?