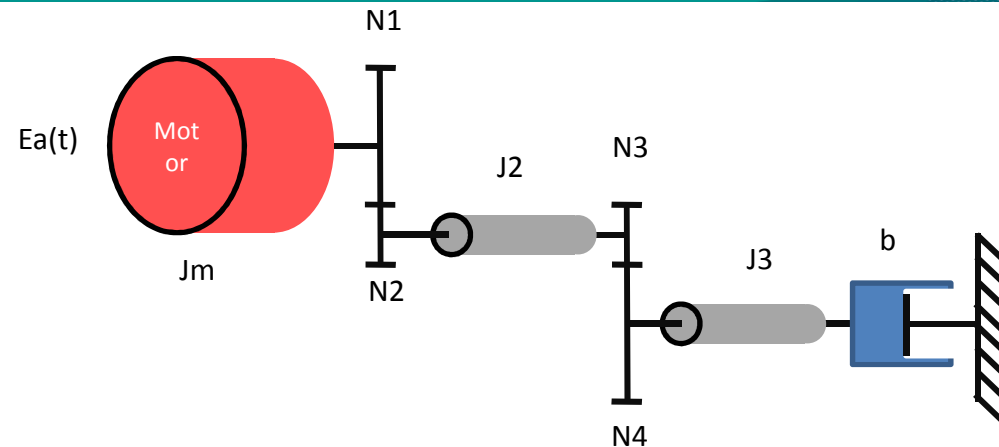# Assignment 1: System Modelling

Consider a robotic arm with 2 articulations powered by a motor as in figure above. It is used to position a work piece in a manufacturing line.

Draw the block diagram of the system.

Find $G_1(s)$ which is $\frac{\theta_3(s)}{E_a(s)}$.

Find $G_2(s)$ which is $\frac{\theta_m(s)}{E_a(s)}$..

10 Marks