Due: 11:59pm, November 25, 2024

You want to plan a joint space LSPB trajectory for a 2R robot for one motion segment. The starting point of the segment is $\theta_1(0) = -10°$, $\theta_2(0) = 25°$, and the end point is $\theta_1(t_f) = 20°$, $\theta_2(t_f) = 100°$. If the magnitude of $\ddot{\theta}_{d1}$ equals $20°/s^2$, the magnitude of $\ddot{\theta}_{d2}$ equals $80°/s^2$ and $t_f = 2.5$ s, determine:

a) t_b and $\dot{\theta}_{\max}$ for each joint

b) θ for each joint when $t = 1.5$ s.