



Torque Left must equal torque right for unit NOT to work, hence:

$$T_l = -[r_1 \cos(e+180) - r_2 \cos 0] m = T_r = [r_1 \cos e + r_2 \cos 0] m$$

$$[r_1 \cos e - r_1 - r_2] m = [r_1 \cos e + r_2] m$$

$$r_1 \cos e - r_1 - r_2 = r_1 \cos e + r_2$$

$$-r_1 - r_2 = r_2$$

= FALSE, thus device will work !