**Torque of actuator connecting link 1 and link 2:**

= 0.01085 Kg.m

T2(Nm) = 0.01085 \* 9.8 = 0.106 Nm

**Torque of actuator connecting base and link 1:**

= 0.042980 Nm

T2(Nm) = 0.042980 \* 9.8 = 0.421 Nm

To compensate the extra requirement of the torque (Dynamixel XL-320 servo has a maximum stall torque of 0.39Nm), a spring of payload 1.2Kg has been implemented.