
# 3BS team

## Team’s members:

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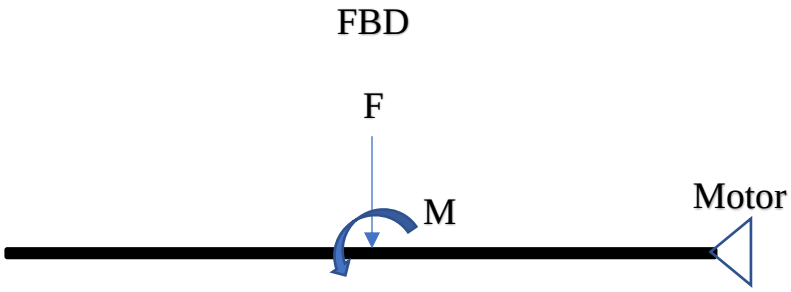
## Task 1

### Subtask 2 (Choosing the suitable motor)


We have chosen MG995 based on these criteria

- It meets the required torque (simple analysis shown below)
- Light weight
- Smaller size
- Lower voltage
- Lower cost

# Simple analysis




Given (from solidworks):

Arm length= 22cm

Arm weight= 0.1 kg

Assumptions:

The center of the mass of the arm is in the middle=11cm

For calculating the torque,

$T = 0.1 * 9.81 * 11 * 10^{-2} = 0.1$ N.m

Therefore,

The required torque $\geq 0.1$ N.m

Note: if the main motor requires torque $\geq 0.1$ N.m to move the arm, it means that the other motors inside the arm will require torque$\leq$0.1 N.m.