**Task 7**

1. For steering task ,we should use stepper motor due to its precision in determination of certain angles ,as it works in steps and each step is of a certain small angle which sometimes reaches a part of a degree .

The link: <https://ram-e-shop.com/product/stepper-motor-nema-17-17hs4401/>

Description:

NEMA 17 Frame

Size: 42x42mm

Step Angle: 1.8°

Current /phase: 1.7 A

Resistance /phase: 1.5 Ω

Inductance /phase: 2.8

Holding Torque: 2.2 N.cm

leads: 4 wires

Motor Wight: 0.28 Kg

Motor Length: 40 mm

Comment: I think 1.8degree precision is good for our mission with a good torque for the arm .

(2)for shooting task we need a motor that provides a high speed with a high torque to allow the ball to reach the stand , for this mission we should use brushless dc motor .

Link: <https://dingsmotionusa.com/nema-23-bldc>

Model: **57ZWS50XL-1**

Description :

Rated voltage 24V

Rated current 2.2A

RPM 3000

Comment : I think that of high speed suitable for the mission and the voltage is 24v and current varies up to 2.2A is suitable .