

Compatibility Check

Thursday, 25 August 2022 11:28 am

Purpose of Documentation:

Compatibility check for the suggested Servo to be used to upscale the size of the project, to support the weight of the additional sensors

Servo Specifications:

Item	CM_530
Weight	54g
CPU	STM32F103RE
Voltage Supply	Range : 6V ~ 15V Recommended : 11.1V (3S1P Li-Po)
Current Consumption	Standby : 50mA External I/O Max Current : 300mA Total Max Current : 10A(Fuse)
Internal IO Device	Button x 5(Reset 1, Port 5) MIC for sound detection x 1 Voltage Sensor x 1
External IO Device	ROBOTIS 5-Pin Port x 6 AX/MX Series DYNAMIXEL Connector x 5

Additional information from servo documentation:

- **Connection to servos** for the CM-530 is done in a DAISY CHAIN METHOD be it the AX/MX Series
- **Area of Concern** It is used to set or test the operations of CM-530 and AX-12A using [RoboPlus Manager](#). Are we planning to use or using the RoboPlus Manager to test AX-12A for our project?

Similarities of AX & MX series; (Similarities between AX-12A & MX-64T)

- Both run on the same communication protocol, DYNAMIXEL Protocol 1.0
- Both use 3pin Molex Connector for their physical connection

Conclusion:

- Both the motors are compatible with the CM_530 controller.
- Need to actually test out if the AX-12A(OLD) can run alongside MX-64T (IN LAB)
- No existing documentation is available online if the CM_530 can run both AX-12A and MX-64T at the same time

References:

Documentation for CM-530:

<https://emanual.robotis.com/docs/en/parts/controller/cm-530/>

Harness compatibility guide:

https://emanual.robotis.com/docs/en/popup/cable_compatibility/

DYNAMIXEL product compatibility guide:

https://emanual.robotis.com/docs/en/faq/faq_dynamixel/

DYNAMIXEL robotis Products Compatibility Table:

https://emanual.robotis.com/docs/en/popup/faq_protocol_compatibility_table/