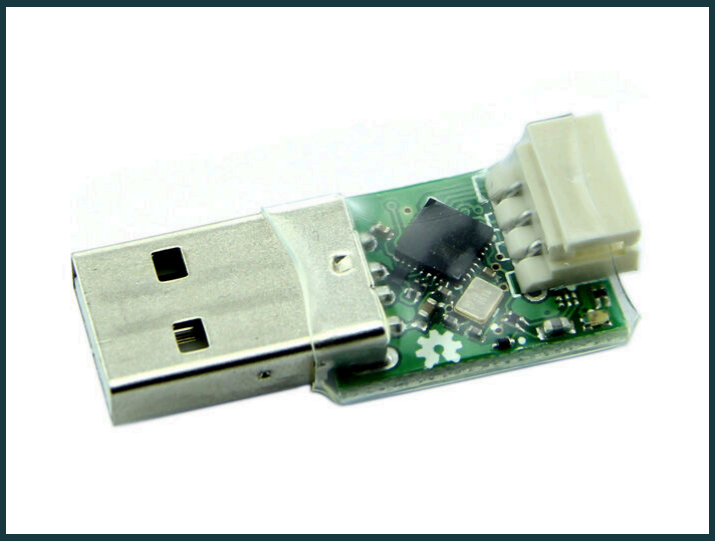
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INDUSTRIAL PRODUCT DATASHEET

USB2AX

Compact USB adapter for controlling AX and MX-T Dynamixel servos with half-duplex TTL at 1Mbps.

SKU	UPDATED	PRICE
105990015	2024-08-09 02:11:27	$39.95(Excl. VAT)



Overview



The USB2AX is a compact USB-to-Dynamixel adapter designed to control AX and MX-T series servos using a half-duplex TTL interface at 1Mbps. It features low latency, ESD protection, and advanced functionalities like sync_read and bulk_read, with support for Windows, Linux, and macOS.

Key Features

You can consider USB2AX v3.2a as an alternative product.

The USB2AX is a small interface to control Dynamixel servos like the AX-12 from a computer. It plugs into a USB port and has a 3-pin Dynamixel connector to be connected to the servos.

A typical use scenario is in a small mobile robot with a laptop or an embedded computer (like a Raspberry PI) as a brain and servos to move legs, arms or claws.

What servos can it talk to?

Basically, it can talk with any device which uses a half-duplex TTL interface (3-pins connector) and the Dynamixel protocol. More specifically:

- All of the AX servos (AX-12/AX-12+/AX-12A, AX-12W, AX-18F/AX-18A).
- The "T" versions of the MX servos (MX-28T, MX-64T, MX-106T).
- (Unsupported) It can probably communicate with some other servos that use the same protocol and interface as the AX servos, like the CDS5500.

What can't it do?

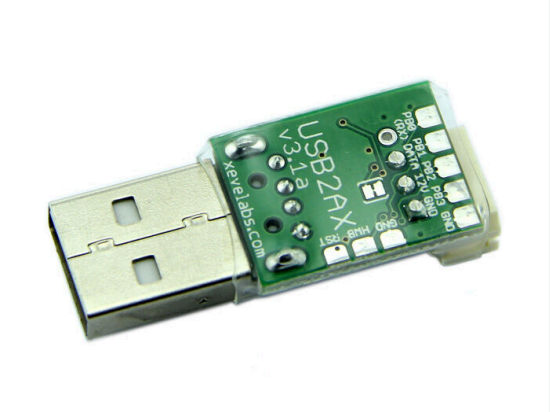
- The USB2AX can not communicate with the Dynamixel servos using the RS485 interface (the one with 4 pins).
- Neither can it control any sort of hobby/RC servos or other brand of robot servos.
- Compared to the USB2Dynamixel, it also lacks the RS232 port (with its big DB9 connector) used to program some controllers from Robotis like the CM-510.
- It can not supply power to the servos.
- It is not a generic USB to Serial (even though it can be modified to be one) and has very different capabilities than the LN-101.

Features

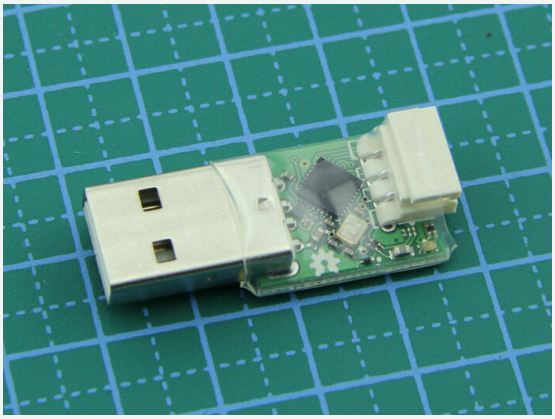
- Comunication with AX and MX Dynamixel servos (with 3 wires) @ 1Mbps
- Very small (16x36mm)
- Optimized latency
- Protection against ESD and short circuits
- Advanced functionalities: sync_read, bulk_read...
- Windows / Linux / MacOS
- Firmware updates
- Open Source Software & Hardware, programmable and hackable!

Driver (for Windows): **usb2ax.inf**
For documentation, CAD files, sources: **xevelabs.com**

Product Gallery







Compliance & Logistics

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Resource Links

- https://www.seeedstudio.com/USB2AX-p-1349.html

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