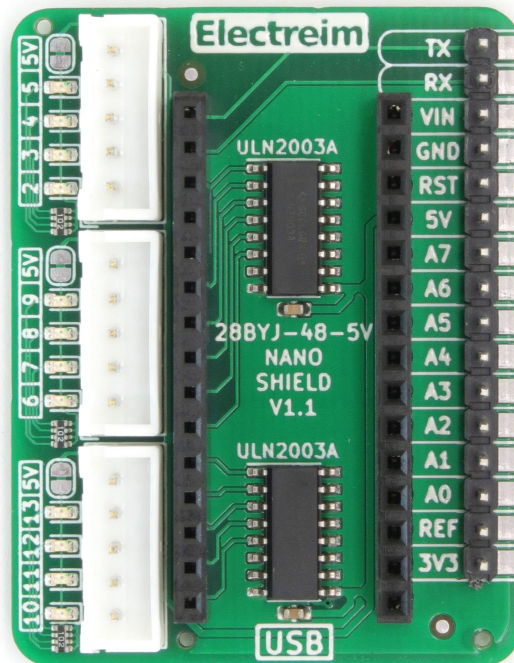


# 28BYJ-48-5V Arduino Nano Stepper Motor Shield Datasheet

Board Version 1.1



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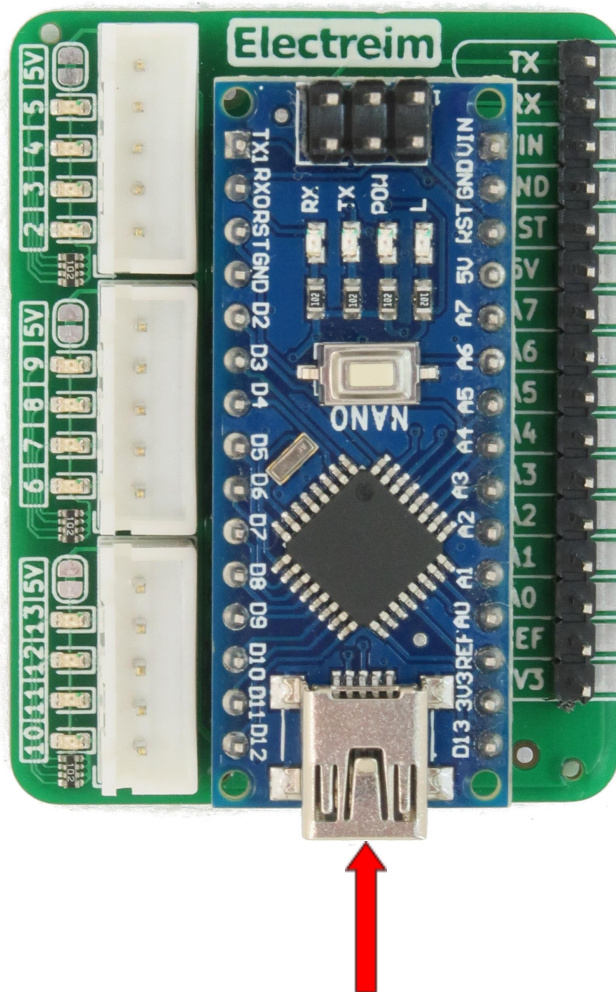
## General Description

The Arduino Nano stepper shield uses two ULN2003A driver ICs to power up to three 28BYJ-48-5V stepper motors. Power for the stepper motors is provided through the Arduino Nano 5V USB, which provides enough power to run all three motors at the same time. Additional power can be provided by connecting 5V directly to the stepper motor board. The stepper motor board has a 16 pin header which can be used to connect jumper wires. In addition, there are pads where wires can be directly soldered to for easy customization of any project. The stepper motor board works with most Arduino stepper motor libraries because the ULN2003A connects directly to the Arduino Nano digital pins.

# Connection Guide

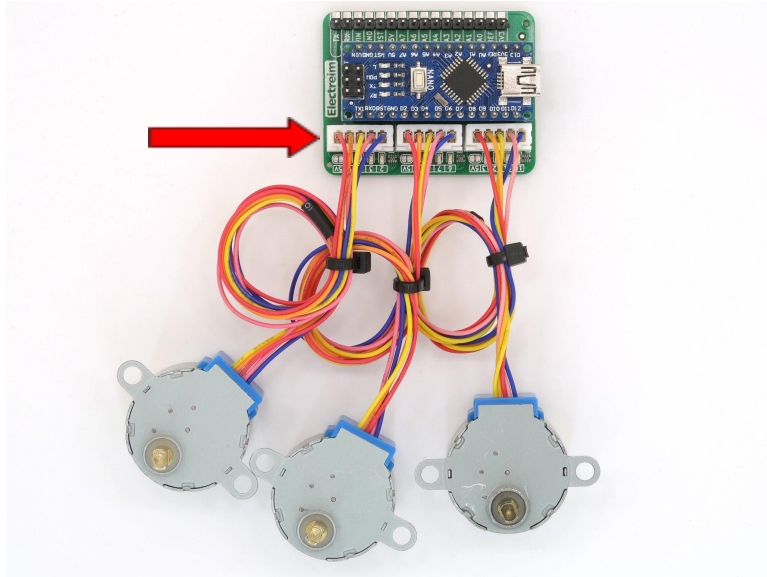
## Connecting Arduino Nano

Plug the Arduino Nano into the two 15 pin sockets on the stepper motor board. The USB port on the Arduino Nano should align with the USB text marking on the stepper motor board. The USB port should NOT cover the Electreim text.



## Connecting 28BYJ-48-5V Stepper Motors

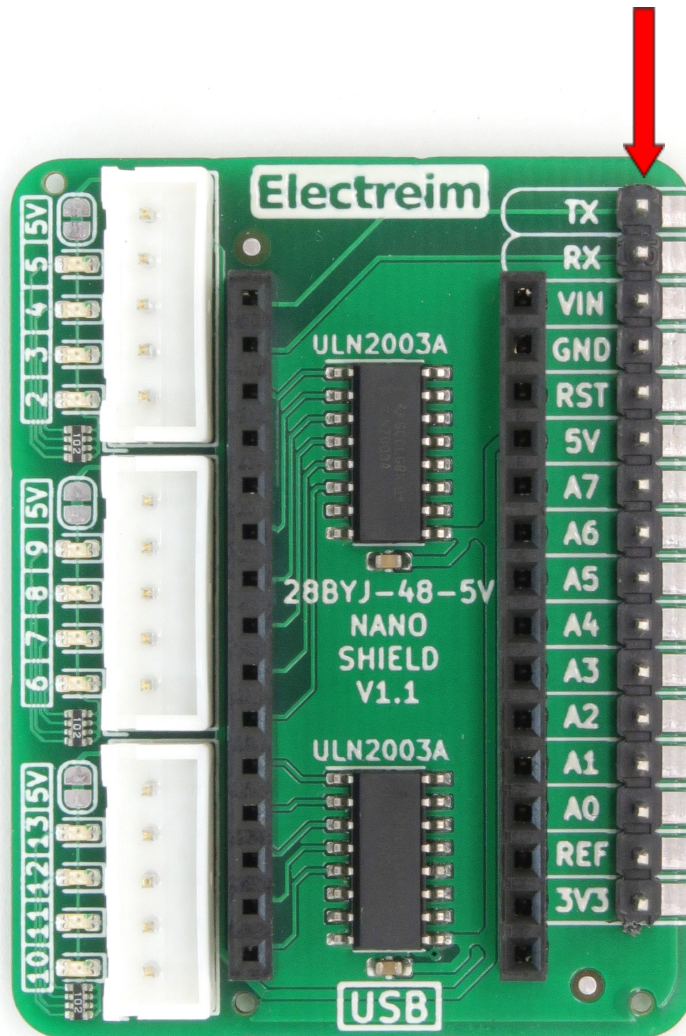
Plug up to three 28BYJ-48-5V stepper motors into the white JST connectors on the stepper motor board.



Motor Coil	Arduino Pin	JST
5V Coil 4 Coil 3 Coil 2 Coil 1	5V D5 D4 D3 D2	
5V Coil 4 Coil 3 Coil 2 Coil 1	5V D9 D8 D7 D6	
5V Coil 4 Coil 3 Coil 2 Coil 1	5V D13 D12 D11 D10	

## Pin Header

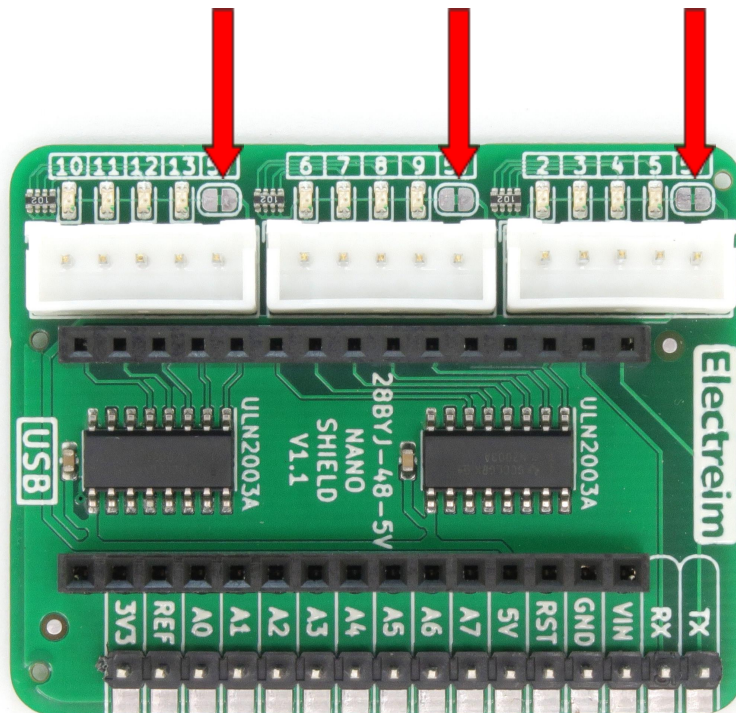
The pin header is used to connect additional devices to the Arduino Nano pins. Use either jumpers wires or directly solder wires onto the solder pads next to the pins.





## Disable LED

There are four red LEDs in front of each JST connector, which indicate the coil of the motor being powered. The LEDs are enabled by default on every stepper shield board. The LEDs can be disabled for each motor connector by carefully cutting the connector between the jumper pads. To enable the LEDs, solder a small bridge on the jumper pads to electrically reconnect them.



# Schematic

