gizDuino LIN Pre-production (Beta) Release

Hardware features:

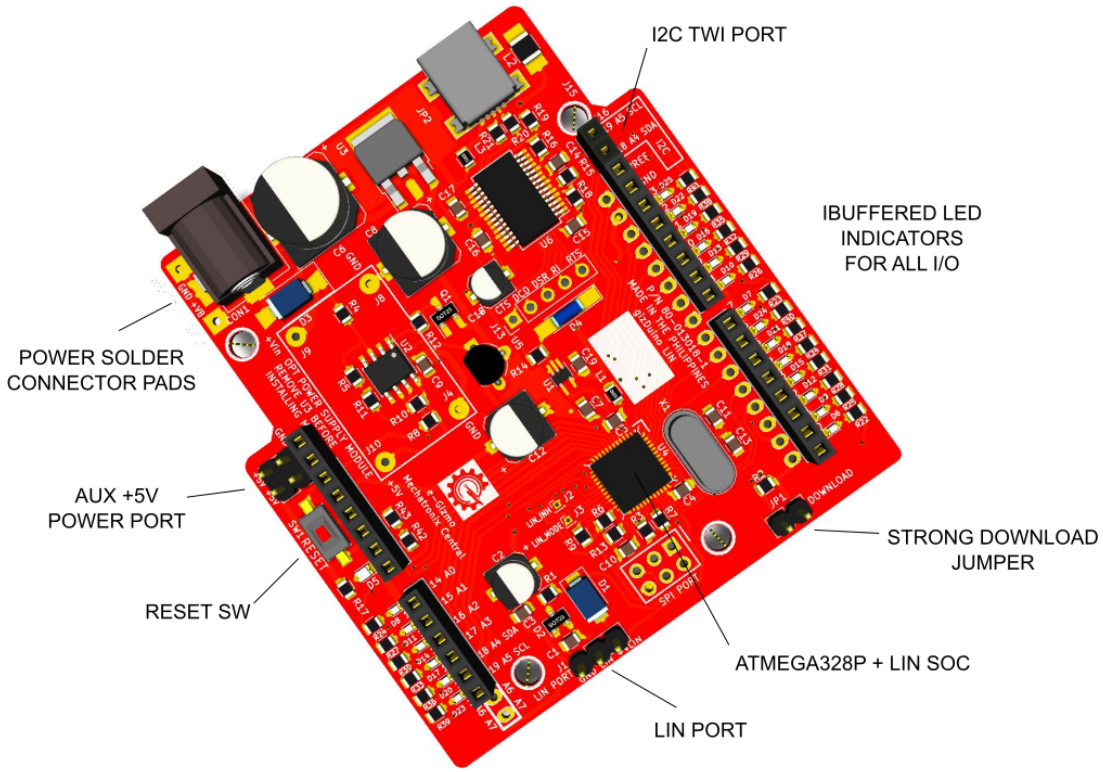
- ATMEGA328P + LIN System On Chip SOC

- Buffered LED status indicators on all user ports.

- Power supply options
    - Standard 5V Linear Voltage Regulator
    - Boost DC/DC Converter- for applications using 3.3V Li-ion Battery as the power source.
    - Step Down DC/DC Converter - best for applications with sustained high voltage power source (15V-36VDC) and/or with additional hardwares that may draw heavy current from the gizDuino 5V rail.

Arduino Uno Compatibility

100% Code and pin compatible with Arduino Uno.



Setting up gizDuino LIN Interface

The LIN interface setup requires the exclusive use of UART port, pins DIO0 (RX) and DIO1(TX), for its operation. Hence once enabled, you can no longer install shields that also requires these pins.

To enable the LIN hardware:

1. Solder a short jumper wire between lower pad on LIN_EN jumper pad and pin 2 of ICSP port.

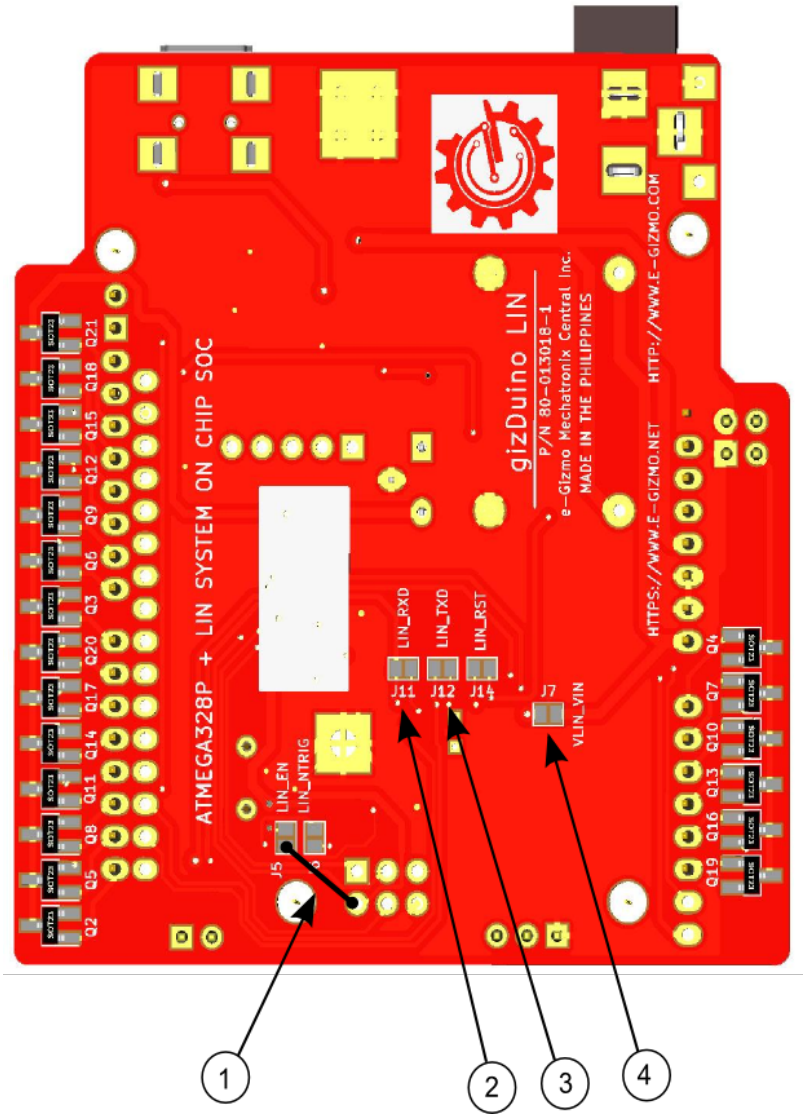
2. Solder a 0603 1K resistor across LIN_RXD solder pads.

3. Apply a solder blob to short LIN_TXD solder pads.

4. Similarly short VLIN_VIN with a solder blob.

The LIN port is now enabled with VLIN voltage equal to the power supply input voltage of the gizDuino. A 12V power supply source is recommended.

To disable LIN hardware (and free DIO0 and DI01), simply undo the work you've done in steps 2,3 and 4.



KNOWN ISSUES

Following issues will be addressed on the final production release of the gizDuino LIN board.

1. "Strong Download" is not strong enough. This jumper block was added to prevent program uploading error when a shield that connects to the UART port is also installed. It does not do its job very well. Hence, for this Beta release, if a shield is causing program uploading error, you have to do the classic Arduino Uno workaround- remove all shields during program uploading.

2. LIN setup. Step 1 will be eliminated, no more resistor to install in step 2.

This document can be downloaded from:
https://www.e-gizmo.net/oc/kits documents/Gizduino/gizDuinoLIN/gizDuino_Preproduction.pdf

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