

# Launchpad Proto Shield v1.0

Last modified January 1, 2014

## Absolute Maximum Ratings

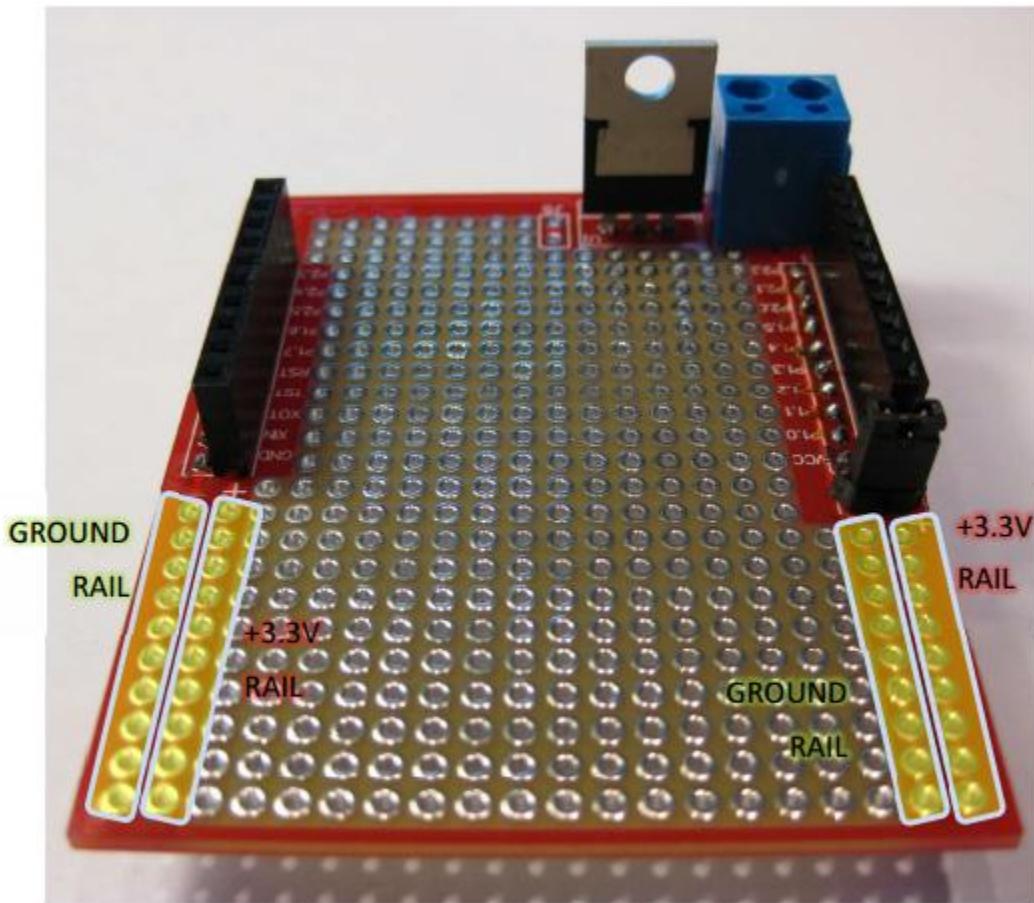
Minimum Vin Voltage = 7VDC

Maximum Continuous Vin Voltage = 25VDC Maximum Short Duration Vin Voltage = 35VDC

## Theory of Operation

Simply supply 7-24VDC to the convenient screw terminals and the rest is up to you! With the built-in voltage regulator, there is no need to worry about a regulated power supply to the Launchpad. Prototype anything you want.

The built-in power strips provide quick and easy access to ground and +3.3V



## Parts List & Description

C1: 0.1uF Ceramic Capacitor, Marked '104'

C2: 0.33uF Ceramic Capacitor, Marked '334'. It is the smaller of the two capacitors.

- C1-2 are used to smooth input and output voltages of voltage regulators U1

J1 & J2: 10-position standard square header, 0.100" pitch

***Note – Please make sure of the header orientation on your Launchpad first! If you have male headers on your Launchpad, the female headers should be soldered on the underside.***

- J1 and J2 male headers mounted on the underside provide the interconnection between the Launchpad and the expander board

- The female headers mounted on the top side provide a connection point for custom circuits OR to connect to more expansion boards

J3: 2-position standard square jumper, 0.100" pitch

- J3 jumper connects the 3.3VDC power from the voltage regulator U3 to the Launchpad below. Remove this jumper when powering the Launchpad via a USB cable and / or during programming

Screw Terminal Strip (J4): 2-position leaf spring screw terminal

- Connection point for the battery / power supply inputs and two DC motor outputs

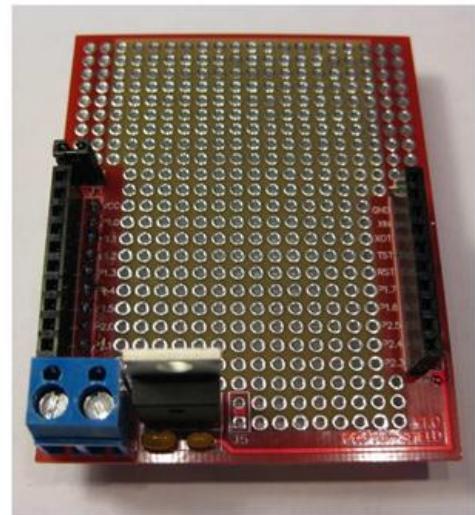
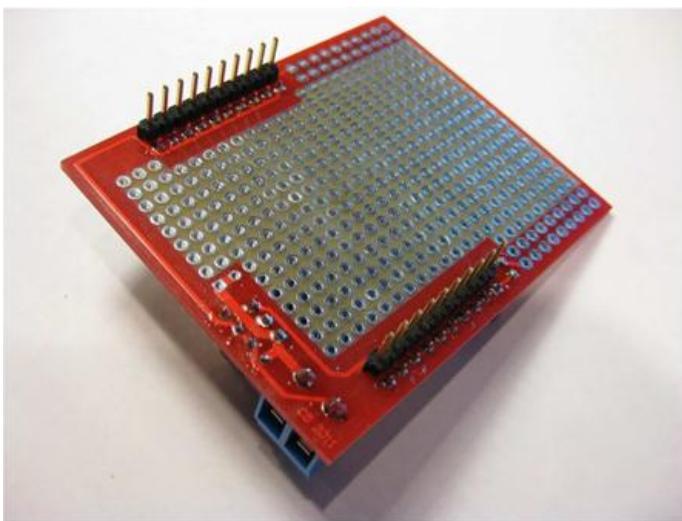
J5: (No part)

- Provides a convenient connection location to connect the input voltage directly from the screw terminal (J4) to custom circuits in the prototyping section of the board

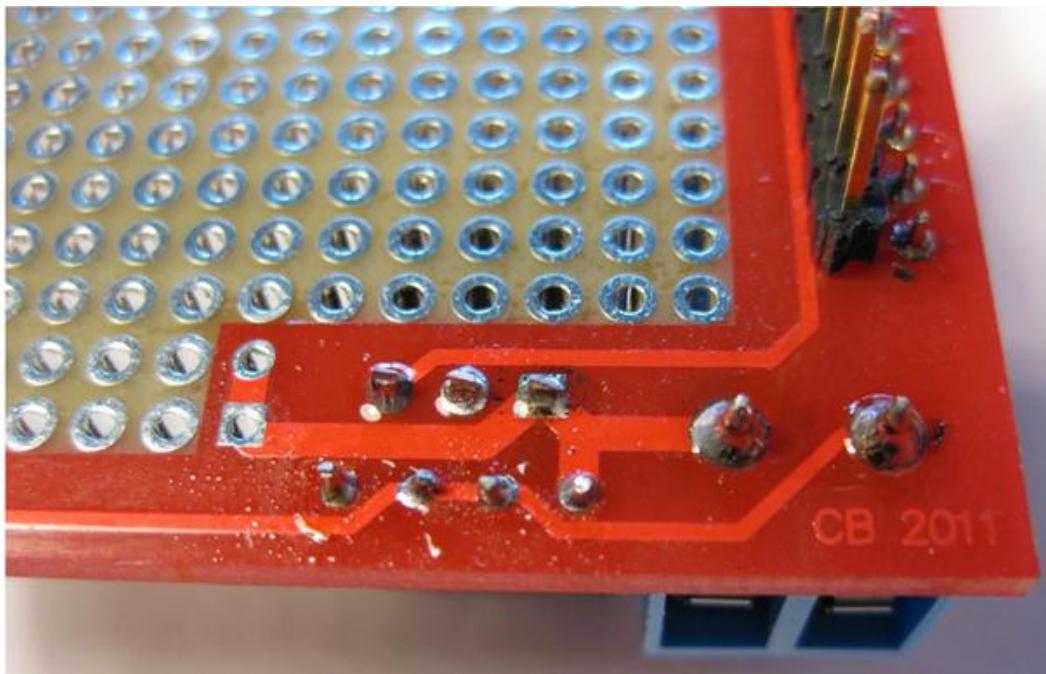
U1: 3.3-Volt Linear Voltage Regulator

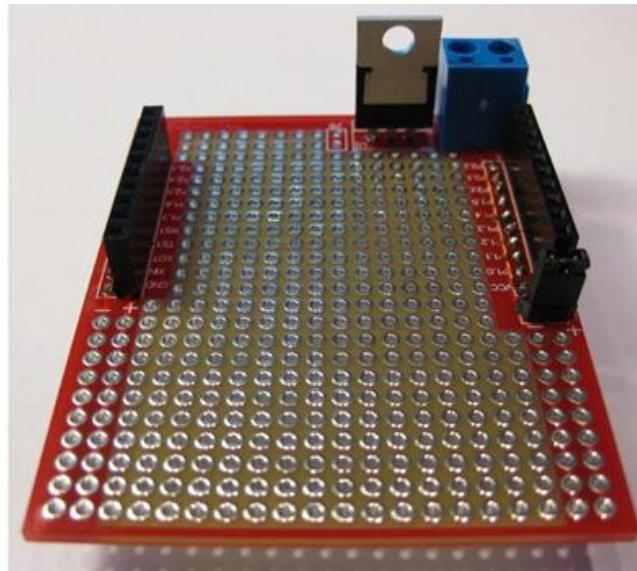
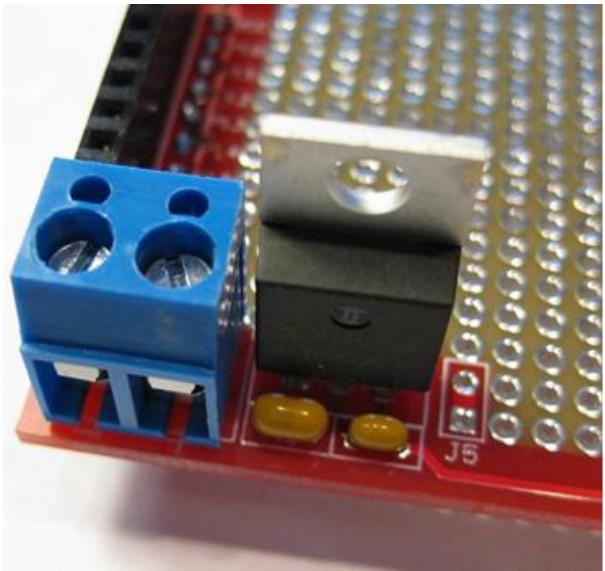
- Uses the Vin input voltage and regulates it to 3.3VDC to supply power to the Launchpad

## Assembly Tips and Pictures



Be sure to clip the protruding pins on the capacitor and voltage regulator are trimmed short enough to not interfere with the board below





## Schematic

