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## SparkFun LiPower Shield

DEV-13158 ROHS ✓ ✱



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**Description:** Is there anything an Arduino can't do? Well, for one, most of them can't be powered directly from a 3.7V LiPo battery; much less charge and monitor that battery. The SparkFun LiPower Shield takes care of this by combining the functionality of two of our favorite battery power boards: the Power Cell and the Fuel Gauge.

The LiPower Shield allows you to connect a 3.7V single cell Lithium polymer battery which it will boost up to 5V and connect to the Arduino board's 5V pin. The on-board MAX17043G+U IC is connected to the I<sup>2</sup>C lines (A4 and A5) so that your project can monitor it's own power supply. The configurable alert interrupt pin on the MAX17043G+U IC is broken out to D2 which will activate when the LiPo gets to 32% or lower.

The charging circuit is configured to charge the LiPo at 100mA but by adding a resistor to the supplied through-holes you can boost this to 500mA. There is a mini-USB port on the shield which allows you to charge the battery from a USB power source or you can supply a separate regulated 5V source on the "charge" header.