



ARDUINO

DATA SHEET

Arduino Resources

The internet is a never ending resource for Arduino users, but here's a few links to start building:

Official Arduino www.arduino.cc

Arduino Forums forum.arduino.cc

Instructables www.instructables.com

Adafruit learn.adafruit.com

MAKE Magazine makezine.com

All About Circuits www.allaboutcircuits.com

Tronixstuff tronixstuff.com/tutorials

SparkFun learn.sparkfun.com

You can also get help from your local makers at your nearest Hackerspace:

Perth The Artifactory www.artifactory.org.au

West Coast Makers www.westcoastmakers.com

Brisbane HSBNE www.hsbne.org

Adelaide Hackspace Adelaide www.hackerspace-adelaide.org.au

Sydney Robots & Dinosaurs www.robotdino.org

Newcastle Newcastle Maker Space newcastlemakerspace.org

Canberra MakeHackVoid www.makehackvoid.com

Hobart Hobart Hackspace www.hobarthackerspace.org.au

Melbourne Make-Creat www.make-create.org

Connected Community www.hackmelbourne.org

To find more local Hackerspaces visit wiki.hackerspaces.org

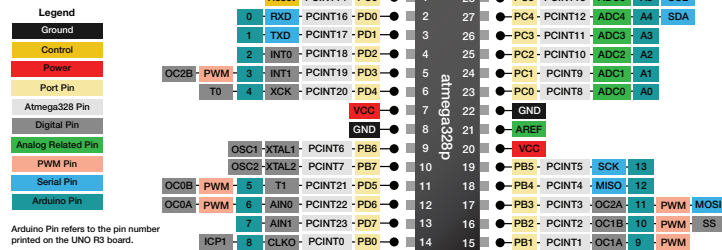
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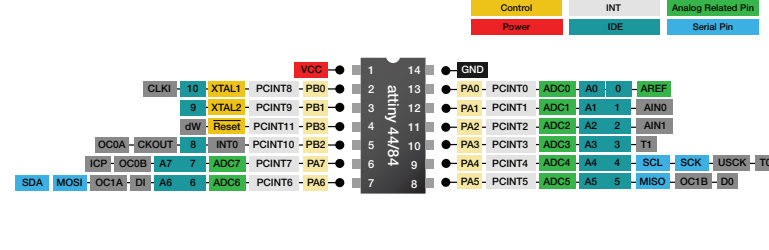
www.bq.com

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atmega328p Pinout



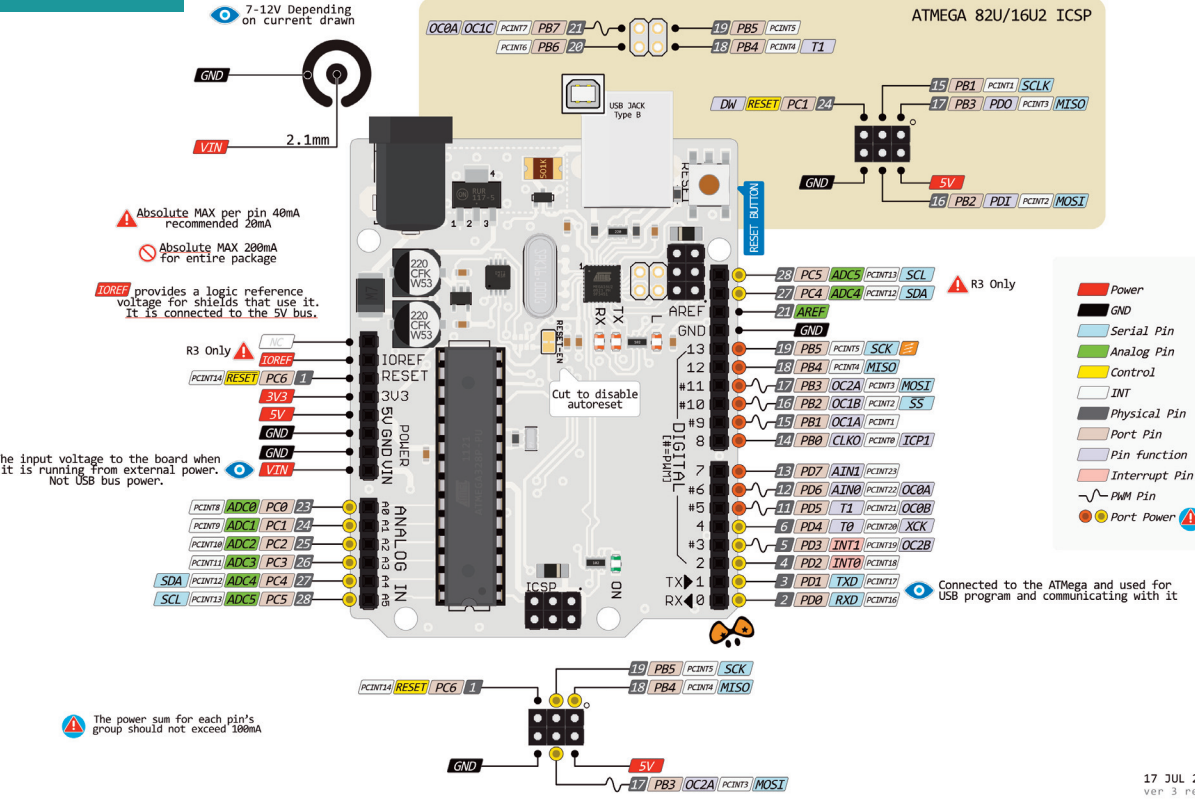
attiny44/84 Pinout



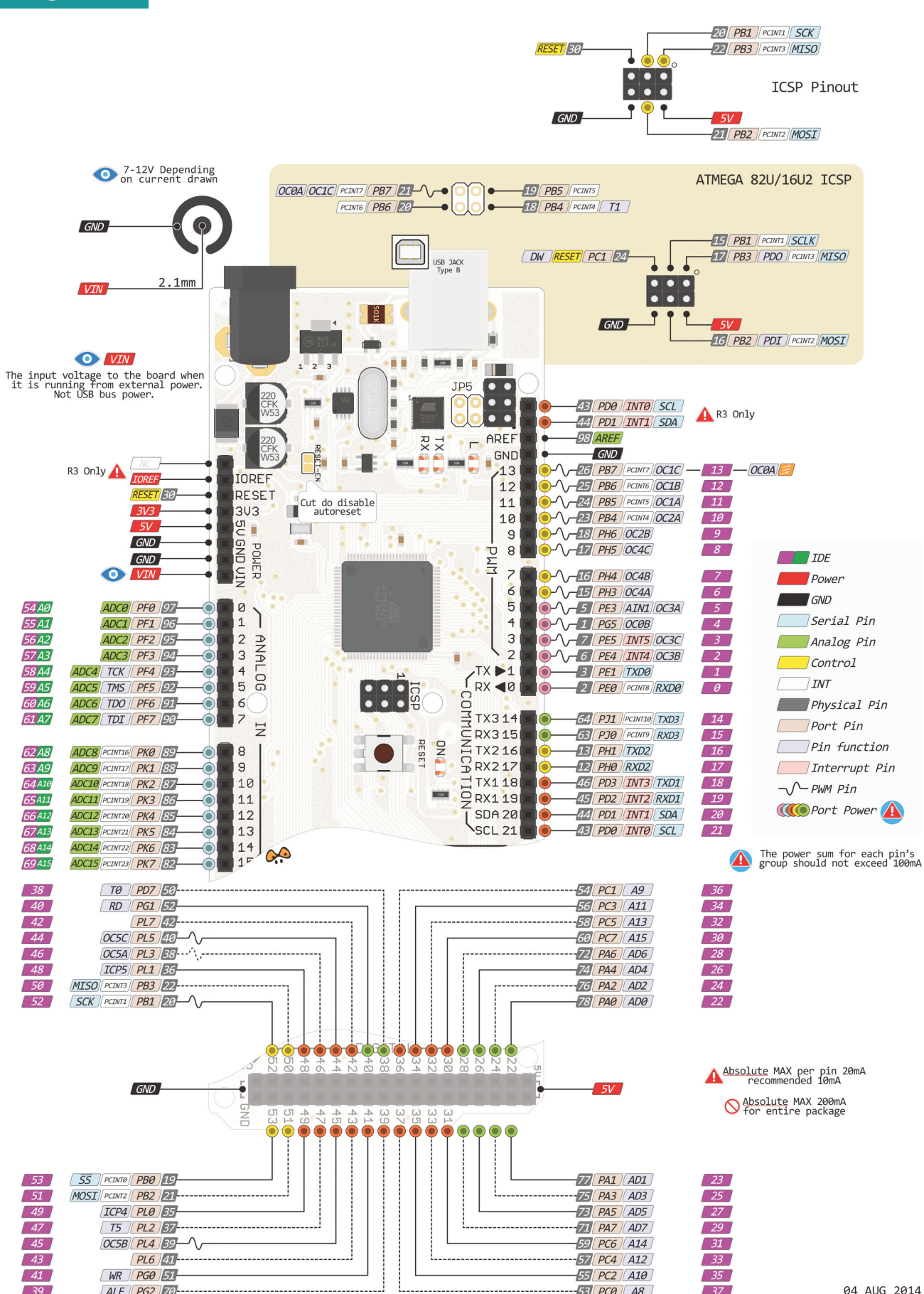
attiny85/45 Pinout

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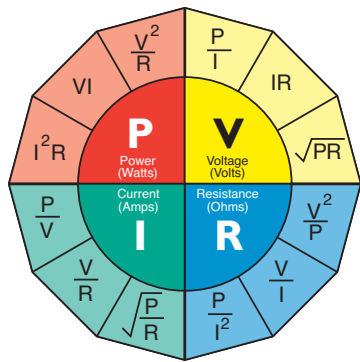
UNO Pinout



Mega Pinout



Handy Formulae



Using this formula wheel it is possible to calculate power, volts, amps or resistance for a given problem. ie. if you have two of the variables, for example power and volts, it is possible to find the amps in a circuit. This wheel expresses volts as V, however, if you are studying old text books, you may see volts shown as E.

POWER (Watts)

This formula is used in many situations, from calculating the wattage of a resistor, to working out if an appliance will overload a particular power source.

$$\text{Power (Watts)} = \text{Current (Amps)} \times \text{Voltage (Volts)}$$

$$P = I \times V$$

Where: V = Volts, I = Amps

A useful variation of this formula is:

$$P = I^2 \times R$$

OHM'S LAW

Ohms law is undoubtedly the most commonly used formula in electronics today. It defines the relationship between voltage, current and resistance. It has many uses such as:

- Calculating the value of a resistor to protect a LED from destruction when run on a higher voltage supply than recommended.
- Calculating the current that a heater element will draw.

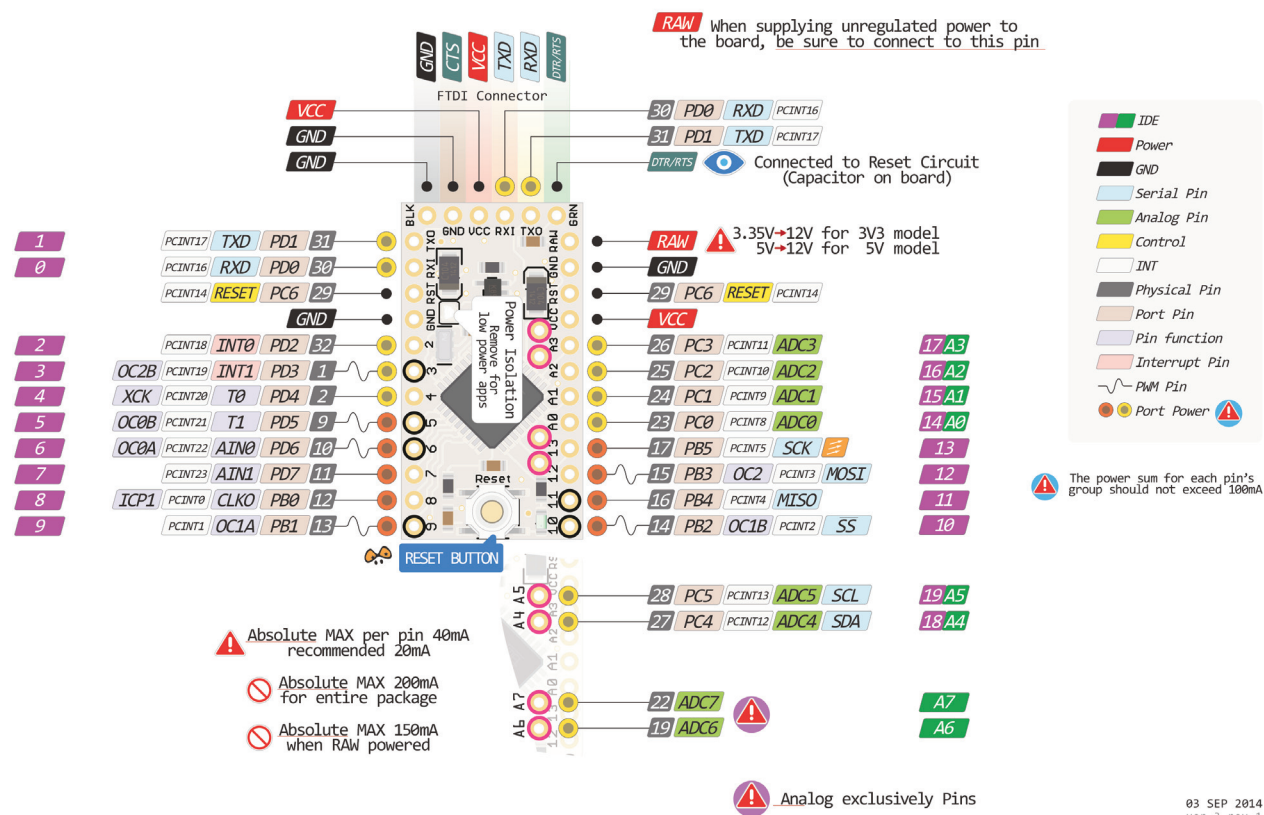
$$\text{Voltage (Volts)} = \text{Current (Amps)} \times \text{Resistance (Ohms)}$$

$$V = I \times R$$

Where: V = Volts, I = Amps, R = Resistance

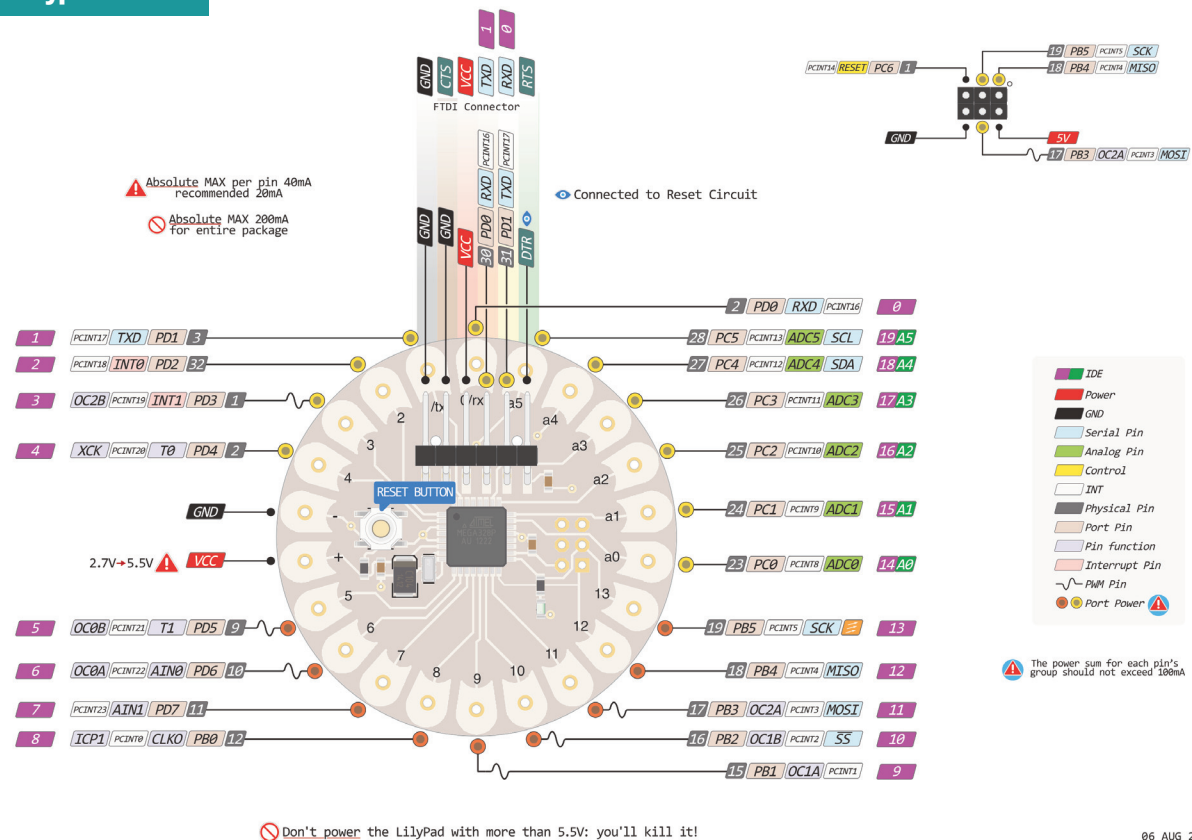
For more useful electronic data, tips and reference sheets, visit:
www.altronics.com.au/technicaldata

Pro Mini Pinout



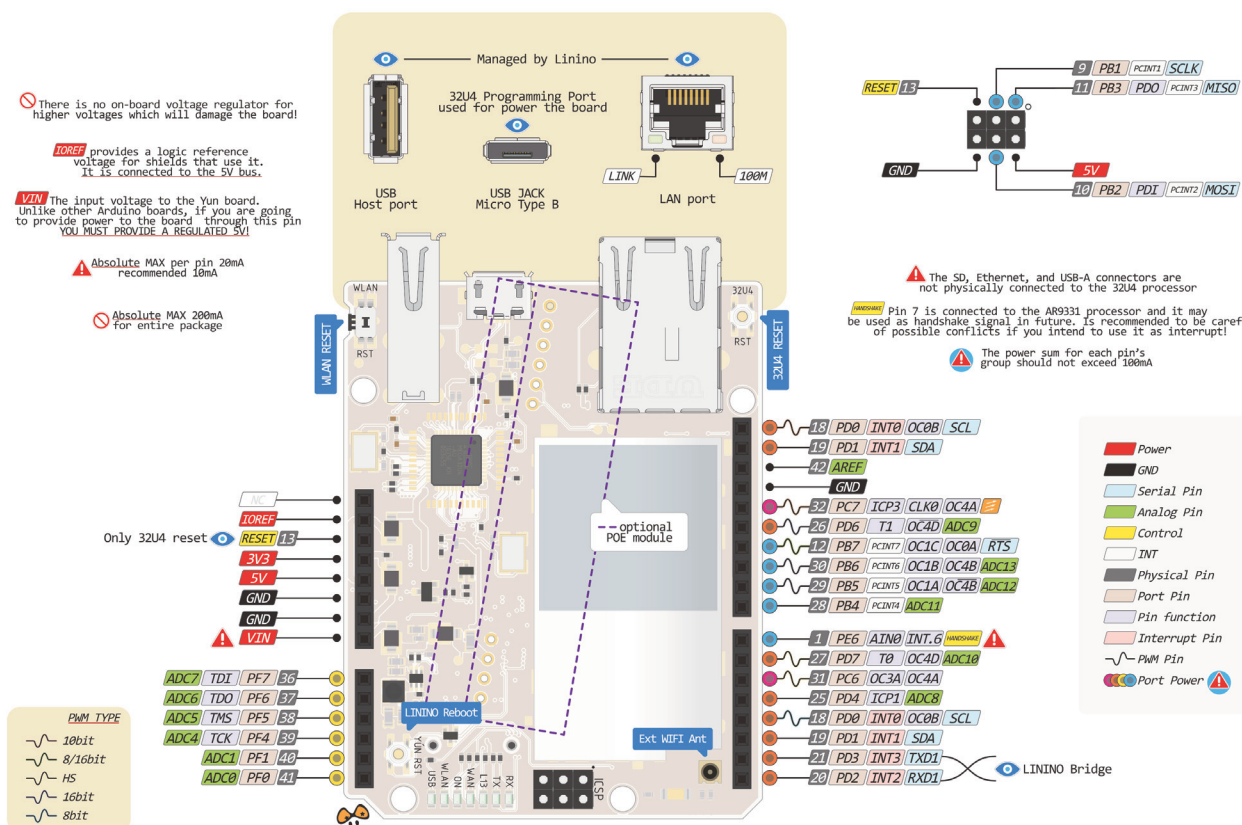
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Lilypad Pinout



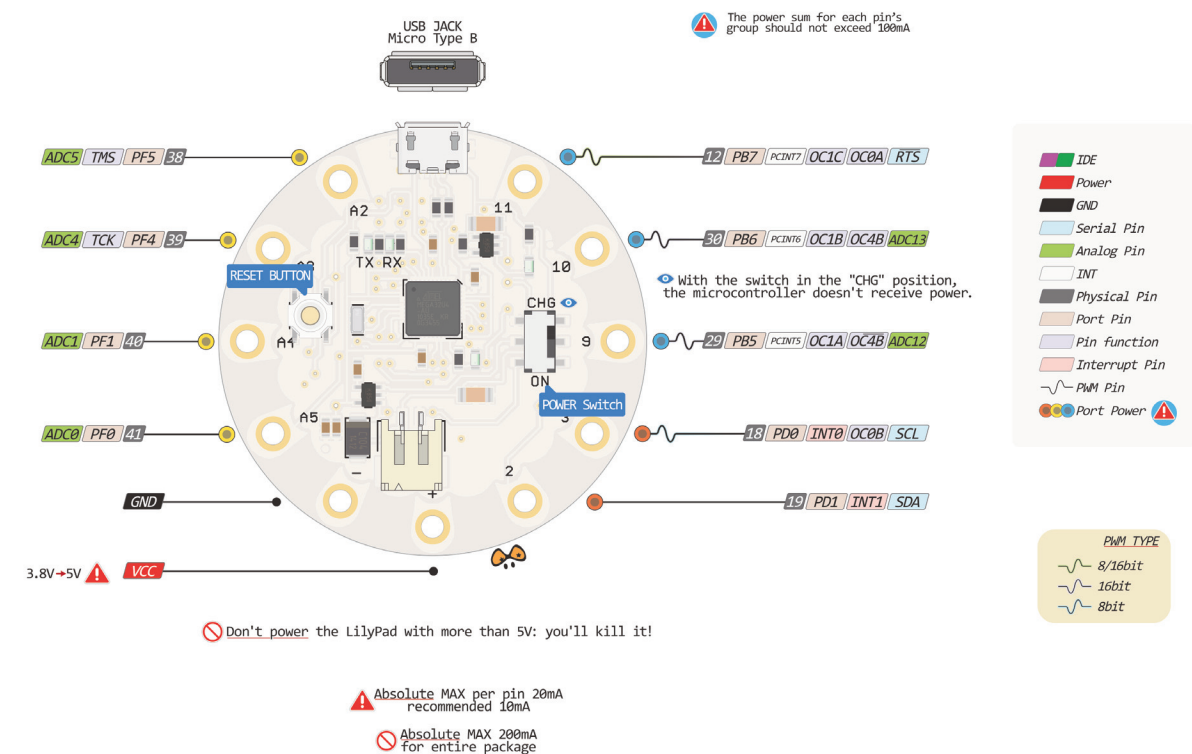
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Yun Pinout



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ver 3 rev 0

Lilypad USB Pinout



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