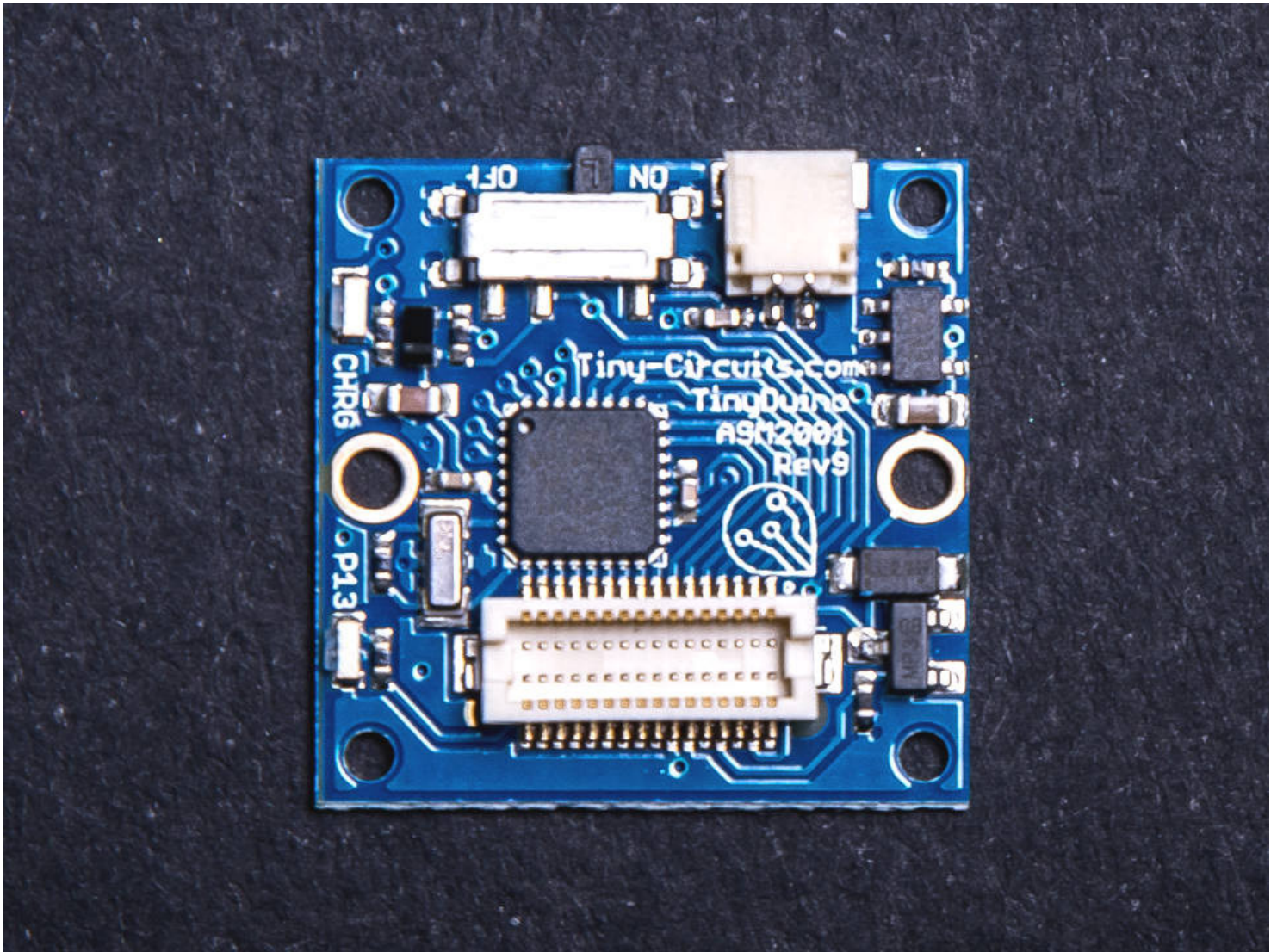


# TinyDuino Processor Board - ASM2001-R

[tinycircuits.com/collections/processors/products/tinyduino-processor-board](http://tinycircuits.com/collections/processors/products/tinyduino-processor-board)



## DESCRIPTION

The TinyCircuits TinyDuino is an Arduino compatible board in an ultra compact package. The TinyDuino processor board is roughly equivalent to the Arduino Uno board – same processor, same signals brought out to a shield connector. In fact, most Arduino sketches will work as is without any changes.

The TinyDuino Processor Board is available in three variations:

- **With Lithium Battery Support** - has an on-board Lithium battery charger that will charge the battery when attached to USB
- **With coin cell battery support** - for low power applications, use a simple CR1632 coin cell battery that can be easily changed
- **Without battery options** - the lightest and lowest cost option

**Main Features:**

- **Atmega328P processor** (same as is used on the Arduino Uno)
- **Power Switch**
- **Status LED**
- **8MHz ceramic resonator**
- **External power supported with a 0.1" power connection holes**
- **Supports automatic switching between +5V and VBATT** (if +5V is present, it will be used instead of the battery)

To learn more about the **TinyDuino Platform**, click [here](#)

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## TECHNICAL DETAILS

- Arduino Compatible
- Expandable with Stackable TinyShield Boards
- Optional battery connector for CR1612-CR1632 coin cell batteries
- Optional Lithium battery connector and charger
- 0.1" spaced solder holes for external power source
- Robust Gold Finish – makes soldering easy and is non-corrosive
- Ultra compact size and weight (smaller than a US Quarter!)
  - 20mm x 20mm (.787 inches x .787 inches)
  - Max Height (without battery holder): 2.9mm (0.12 inches)
  - Max Height (with coin cell battery holder): 6.58mm (0.26 inches)
  - Ultra-thin 0.61mm (0.024 inches) PCB
  - Weight: 1.10 grams (0.039 ounces) - Lithium version
- Atmel ATmega328P Microcontroller
  - 32KB Flash, 2KB RAM, 1KB EEPROM
  - 1.2mA (typical) @ 3V, 4MHz
  - Default Clock speed: 8MHz
- 2.7V – 5.5V operating voltage
- 20 I/Os (14 Digital, 6 Analog / Digital I/O) – All the signals on the Arduino Shield connectors are supported!
- Arduino Bootloader preprogrammed (uses approx 0.5 KBytes of Flash Memory)

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## Notes

- If you are brand new to the TinyDuino, buying a kit is the best way to go since it will have all the parts needed. Check out the TinyDuino Kits [here](#)
- All batteries are sold separately
- To program this board, you need to use the [TinyShield USB Board](#)

- This board does not include a voltage regulator – do not supply more than +5.5V to VBATT or the +5V signal or you will permanently damage the board and ruin your day.
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