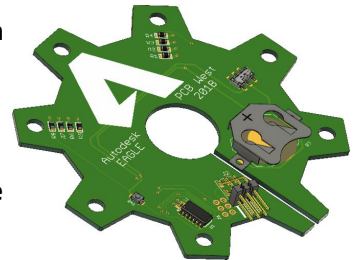**Fidget Spinner**

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**Hardware**
You'll need an Arduino of some kind (or an ICSP programmer if you have one). The fidget has an ICSP header on it for programming, so follow this page's instructions: https://www.arduino.cc/en/tutorial/arduinoISP. You'll want to use the Arduino as an ISP to program the fidget.

As the instructions describe, you'll also need to load the ArduinoISP sketch on your main 'duino board so that it can act as the programmer.

IMPORTANT: You'll need to power the board with the 3.3V coin cell for it to program. Make sure it's switched on. **Do not power the fidget from the Arduino. Connect only the GND connection and signals.** If you end up using the USB AVR programmer (below), make sure you disconnect the power to the fidget.


**Firmware**
I've attached the sketch you'll need to load into the fidget. No need to flash a bootloader into the fidget.

**Software**
The board is based on the ATTiny441/841 IC. To correctly flash the board, you'll first need to install the ATTInyCore **v1.2.1** library (through Tools | Board:…. | Board Manager). Ensure that it's the 1.2.1 release as there some issues with the newer lib.

Once that's installed, you'll be able to select the correct hardware configuration in the Tools menu.

The only difference for you is that you'll want the ArduinoISP programmer since you're using that as your programmer hardware.

 If you run into problems getting the Arduino to work as a programmer, you may instead need the USB AVR programmer cable: https://www.amazon.com/TinySine-USBtinyISP-AVR-Programmer-Arduino/dp/B00N8EVQ30. If that's the case, then you can just copy our settings above, specifying *USBTinyISP (ATTinyCore)* as the programmer.

| Quantity | Name | Library | Device | Value | Layer |
|---|---|---|---|---|---|
| 8 | | RCL | R-US_R0805 | 241 | |
| 8 | | LED | LEDCHIPLED_0805 | | |
| 1 | | RCL | C-USC0805K | 1.75uF | |
| 1 | | MultiController Sparkfun | AtTiny 841-U | | |
| 1 | | Adafruit | DPDT-EG1390 | | |
| 1 | | SparkFun / Toggle Switch | | | |
| 1 | | Spark-Connectors | CONN_032SMT | N/A | |
| 1 | | PinHead | PinHD-2x3 | Not Populated | |
| 1 | | Battery | 2032 Battery Holder | 3.3V | |
| | | | | | |