

Digispark ATtiny85

A hardware device handed out during the event.

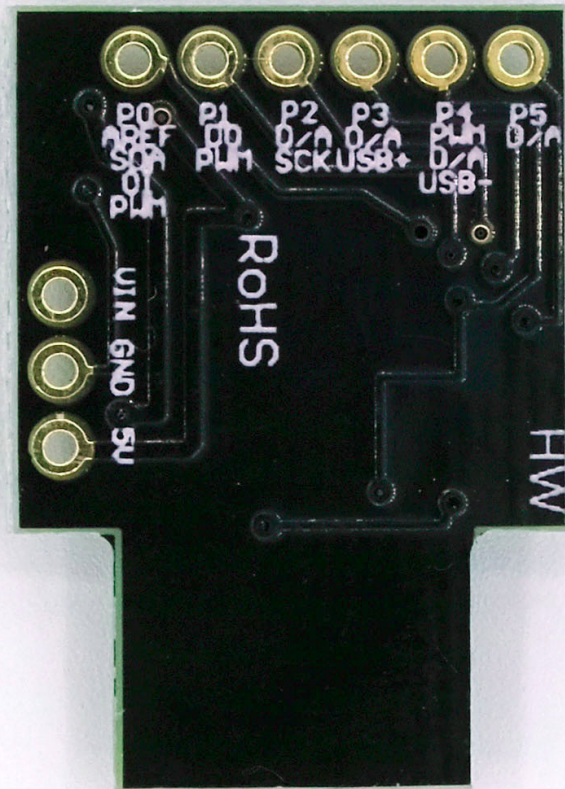
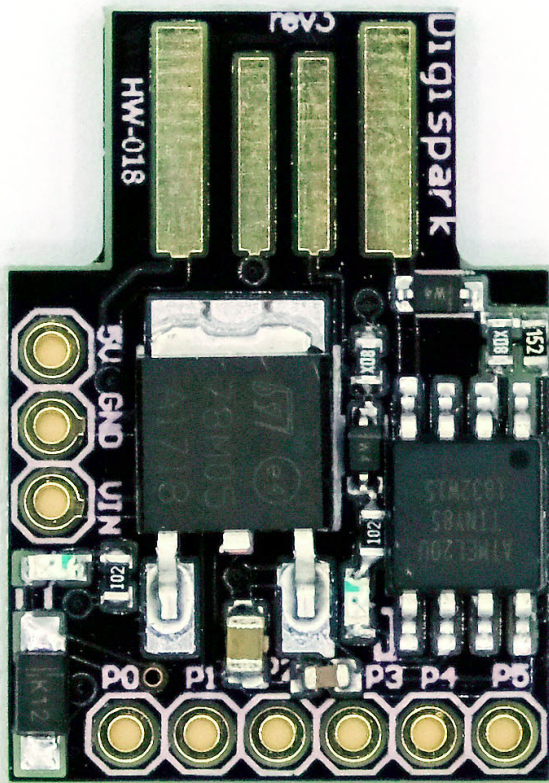


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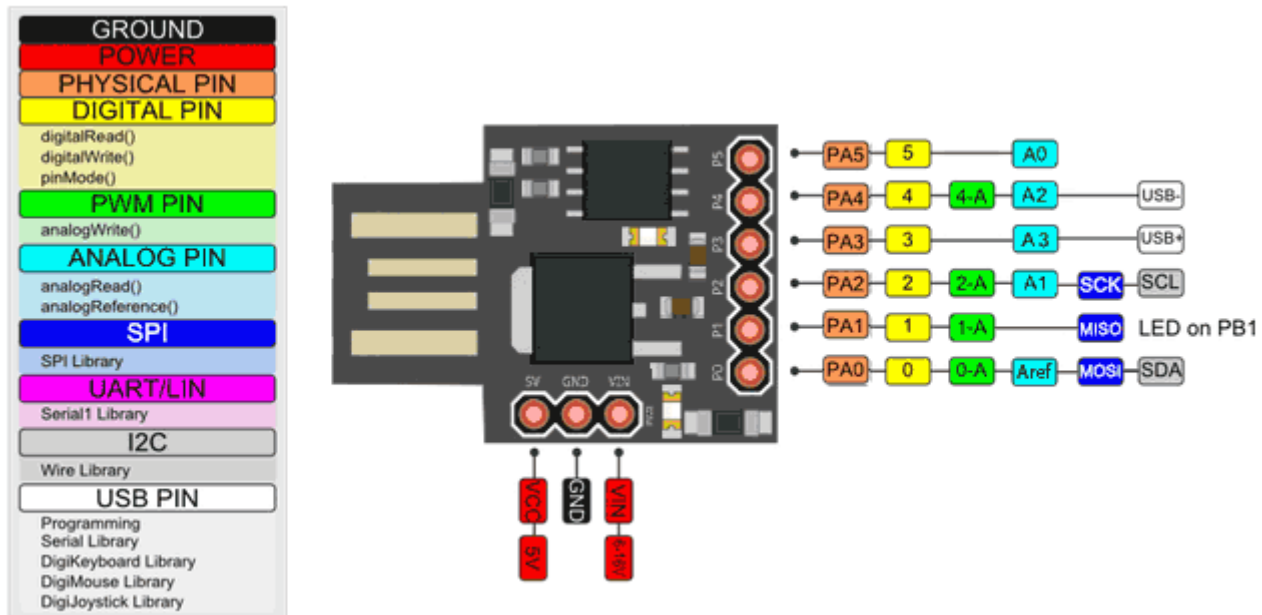
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Specifications

- Support for Arduino IDE 1.0+ (OSX/Win/Linux)
- USB or External Power: 5V or 7-35V (auto-selection)
- On-board 500mA 5V Regulator
- Built-in USB (with serial debugging)
- 6 I/O Pins (2 reserved for USB when communicating)

- 8k Flash Memory (approximately 6k available after bootloader)
- I2C and SPI (via USI)
- PWM available on 3 pins (expandable with Software PWM)
- ADC on 4 pins
- Power LED and Test/Status LED (on Pin0)

Pinout



Arduino IDE Installation

Linux (Ubuntu)

1. Visit the tutorial: [Install Arduino IDE on Ubuntu](#)
2. Follow instructions to install the IDE.

Windows

1. Download the executable from the Arduino website.
2. Follow the setup steps.

Link: [Download Arduino IDE for Windows](#)

Troubleshooting (Linux)

Fix for Upload Errors

If you encounter upload errors:

1. Run the following command to fix USB permissions:

```
echo 'SUBSYSTEM=="usb", ATTRS{idVendor}=="16d0",
ATTRS{idProduct}=="0753", GROUP="dialout" | sudo tee
/etc/udev/rules.d/90-digispark.rules
```

2. Unplug and replug the device or restart your computer if needed.

Working with the Arduino IDE

1. Add Digistump Boards:

- Open **File -> Preferences**.
- In the **Additional Boards Manager URLs** field, add:
`https://raw.githubusercontent.com/digistump/arduino-boards-index/master/package_digistump_index.json`
- Click **OK**.

2. Install Board Libraries:

- Go to **Tools -> Board -> Boards Manager**
- Search for **digistump avr boards** and install.

3. Verify Installation:

- Navigate to **Tools -> Board -> Digistump AVR Boards -> Digispark (Default 16.5mhz)**
- The board should now be selectable.

Uploading Your First Program

1. Select the **Digispark (Default 16.5mhz)** board from the IDE menu.
2. Use the simple blink sketch below as a test:

```
// Simple Blink Sketch
const int led_pin = 1;

void setup() {
  pinMode(led_pin, OUTPUT);
}

void loop() {
  digitalWrite(led_pin, HIGH);
  delay(1000);
  digitalWrite(led_pin, LOW);
  delay(1000);
}
```

Important:

Press the upload button **WITHOUT THE USB PLUGGED IN!** Only plug in the USB when prompted by the console. When the sketch uploads successfully, the LED on the device will start blinking.