

ATTINY85 Digispark Kickstarter Mini USB Development Board – Product Description

Introduction

The **ATTINY85 Digispark Kickstarter Mini USB Development Board** is a compact and affordable microcontroller board based on the **ATtiny85 chip**. Designed as a smaller alternative to Arduino boards, this module provides excellent functionality while maintaining a minimal footprint. Its built-in USB interface makes it easy to program, while its low cost and simplicity make it one of the most popular boards for beginners, hobbyists, and IoT developers.

Despite its small size, the **Digispark ATTINY85 board** is powerful enough to handle automation, sensor integration, robotics, LED control, and other embedded applications. Whether you are new to microcontrollers or an experienced developer, this board offers an efficient platform for **DIY electronics, prototyping, and small-scale IoT projects**.



Key Features

- **Microcontroller:** Based on the **ATtiny85** chip.
- **Compact Design:** Ultra-small development board suitable for portable projects.
- **USB Programming:** Plugs directly into a computer's USB port for programming, no external programmer needed.
- **Arduino IDE Compatible:** Easily programmable using the popular Arduino IDE.
- **6 I/O Pins:** Configurable for PWM, ADC, I2C, or SPI communication.
- **Onboard Voltage Regulator:** Supports input voltage from 7V to 35V.
- **Wide Applications:** Ideal for IoT devices, LED projects, robotics, and sensor-based projects.
- **Cost-Effective:** Affordable alternative to larger Arduino boards for simpler tasks.

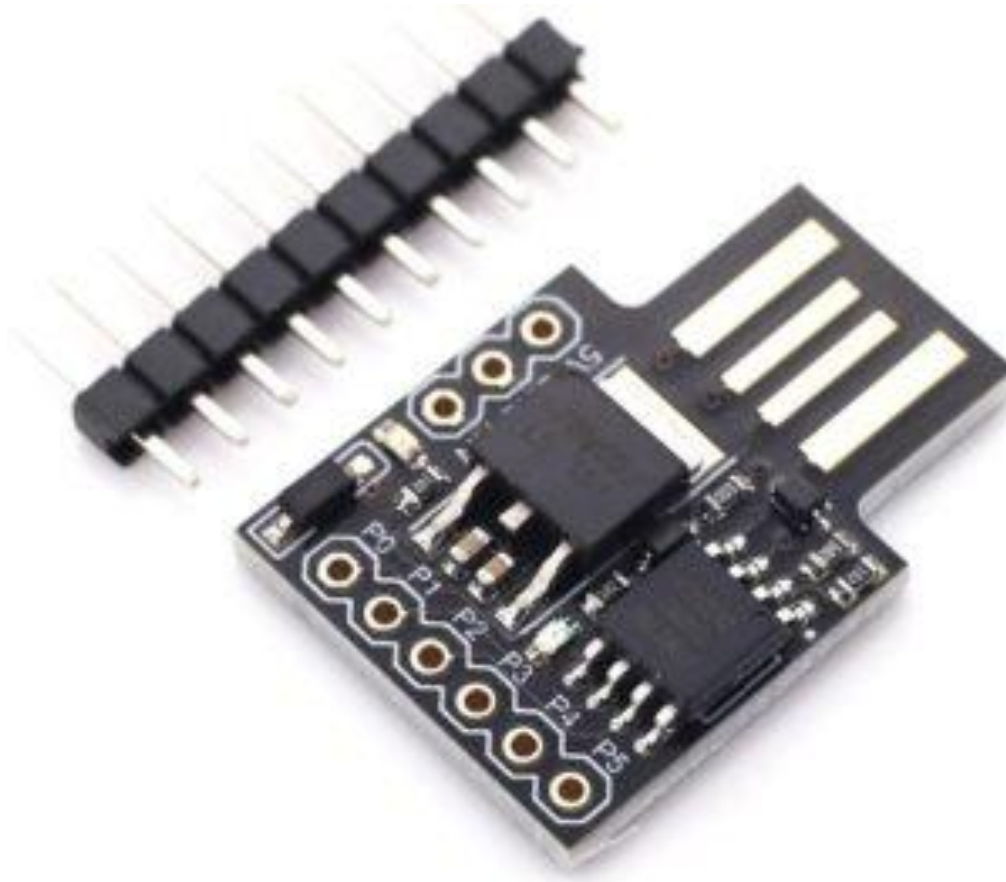
Technical Specifications

- **Microcontroller:** ATtiny85
- **Clock Speed:** 16.5 MHz (default with PLL)
- **Flash Memory:** 8 KB (6 KB usable with bootloader)
- **SRAM:** 512 bytes
- **EEPROM:** 512 bytes
- **I/O Pins:** 6 (two can be used for I2C, SPI; three can provide PWM output; four can be used as ADC inputs)
- **Operating Voltage:** 5V (regulated via USB)
- **Input Voltage (external):** 7V – 35V (through VIN pin)
- **USB Connectivity:** Onboard USB interface for programming
- **Size:** Extremely compact, fits into small enclosures and breadboards
- **Programming:** Arduino IDE, compatible with Digispark drivers

Applications

The **ATTINY85 Digispark Mini USB Development Board** is designed for projects that require small size, low power, and efficient functionality. Some of the most common applications include:

1. **DIY Electronics Projects** – Create LED controllers, sensors, and automation systems.
2. **Robotics** – Use in small robots for control and automation tasks.
3. **IoT Devices** – Build low-power Internet of Things prototypes and smart devices.
4. **Wearables** – Due to its small size, perfect for wearable electronics projects.
5. **Sensor Integration** – Connect to temperature, light, or motion sensors for automation.
6. **Educational Use** – Great for students learning about microcontrollers and embedded systems.
7. **Prototyping** – Quickly test small-scale projects before moving to larger boards.



Advantages of ATTINY85 Digispark Board

- **Ultra-Compact Size:** Much smaller than standard Arduino boards, making it perfect for space-constrained projects.
- **Plug-and-Play USB:** Built-in USB port means no extra programmer is required.
- **Low Power Consumption:** Ideal for battery-powered applications.
- **Full Arduino Support:** Programmable using the Arduino IDE with minimal setup.
- **Affordable & Beginner-Friendly:** A low-cost entry point into embedded systems programming.

Why Choose the Digispark ATTINY85?

The **Digispark ATTINY85 development board** is the go-to choice for projects that don't require the full power of Arduino boards. Its **simplicity, affordability, and compact size** make it an ideal option for small electronics projects, wearable devices, and sensor-based systems.

If you are learning embedded systems, this board gives you an easy way to practice microcontroller programming. For professionals, it provides a reliable platform for **prototyping low-cost IoT devices and automation projects**.

Conclusion

The **ATTINY85 Digispark Kickstarter Mini USB Development Board** is an efficient, versatile, and affordable microcontroller board that packs powerful features into a small form factor. With its compatibility with Arduino IDE, simple USB programming, and wide range of applications, it is perfect for **students, hobbyists, IoT developers, and embedded engineers**.

☞ **Order your Digispark ATTINY85 Mini USB Development Board today and start creating smart, compact, and innovative projects with ease!**