

## INTRODUCTION

We designed three EEDU kits to help you dive into the world of [AI](#), [IoT](#), and [environmental sensing](#) using programming hardware. Built around an [ESP32-based FireBeetle board](#) that's compatible with [Arduino](#), each kit comes with peripherals tailored to its specific application so you can hit the ground running.

If you're seeking to enhance your environment with affordable open-source hardware or want to experiment with a practical hardware kit that includes many quick-start guides, these kits are ideal for you.

With many project tutorials included in these all-in-one kits, they're a great choice for beginners entering the world of open-source hardware. They're also designed for easy customization and expansion, allowing you to add new peripherals and sensors as your skills grow. Unleash your creativity with our IoT kit that has everything you need to build amazing Internet of Things projects.

Equipped with a high-quality audio player, powerful speakers, and advanced sensors like [PIR \(passive infrared\)](#) and [ultrasonic sensors](#), you can bring your ideas to life and create truly magical experiences. Welcome to the exciting and innovative world of Arduino-based hardware!

### Video:

<https://www.youtube.com/embed/jXMwtu0voF4>

## FEATURES

- Ideal for exploring IoT applications
- Cost-effective and environmental-friendly
- Application-specific peripherals
- Easy to Get Started
- Quick prototyping
- Easily customizable and expandable
- All in one
- Practical

## APPLICATIONS

- STEAM education
- Arduino IoT projects
- Smart Campus projects
- Smart home projects
- Programming learning
- Prototyping projects

- [Internet of Things projects](#)

## DOCUMENTS

- [Product wiki](#)

## SHIPPING LIST

- [FireBeetle 2 ESP32-E IoT Microcontroller with Header \(Supports Wi-Fi & Bluetooth\)](#) x1
- [Gravity: IO Shield for FireBeetle 2 \(ESP32-E/M0\)](#) x1
- [Gravity: Digital 10A Relay Module](#) x1
- [Fermion: DFPlayer Pro - A mini MP3 Player with On-board 128MB Storage \(Breakout\)](#) x1
- [Jumper Wires 9" F/F \(10 Pack\)](#) x1
- [Stereo Enclosed Speaker - 3W 8Ω](#) x1
- [Gravity: Digital PIR \(Motion\) Sensor for Arduino](#) x1
- [Gravity: LED Button - White](#) x1
- [Gravity: LED Button - Yellow](#) x1
- [Gravity: I2C HUB](#) x1
- [Gravity: I2C SD2405 RTC Module](#) x1
- [Fermion: URM37 Ultrasonic Sensor \(2~800cm\) \(Breakout\)](#) x1