

INTRODUCTION

Get started with [AI](#), [IoT](#), and [environmental sensing](#) using programming hardware with our three EEDU kits. Each one centers on a [FireBeetle board based on ESP32](#) that's compatible with [Arduino](#) and is equipped with application-specific peripherals to help you learn quickly.

Whether your goal is to upgrade your environment with budget-friendly open-source hardware or to test out a hands-on hardware kit that provides plenty of quick start guides, these kits are an excellent choice.

These complete kits provide many project tutorials and are a top pick for beginners wanting to get started with open-source hardware. They're designed for easy customization and expansion, so that users can add new peripherals and sensors as their abilities grow.

Using this kit, you can construct practical devices capable of environmental monitoring soil moisture and air quality in real-time. There's no limit to the scenarios in which this monitoring capability can be applied! With these sensors at your disposal, you can convert your garden or classroom into a smart environment driven by data and witness nature's wonders through the lens of real-time data. Welcome to the exhilarating and innovative realm of Arduino-based hardware!

Video:

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

FEATURES

- Cost-effective and environmental-friendly
- Application-specific peripherals
- Easy to Get Started
- Quick prototyping
- Ideal for exploring nature applications
- Easily customizable and expandable
- Practical
- Water-proof soil moisture sensor
- Multifunctional

APPLICATIONS

- Smart plant pot
- Smart garden
- Smart farms
- AI projects
- Smart Campus projects

- Smart home projects
- Programming learning
- Prototyping projects
- STEAM education

DOCUMENTS

- [Product wiki](#)

SHIPPING LIST

- [FireBeetle 2 ESP32-E IoT Microcontroller with Header \(Supports Wi-Fi & Bluetooth\)](#) x1
- [Gravity: Analog Waterproof Capacitive Soil Moisture Sensor](#) x1
- [Gravity: IO Shield for FireBeetle 2 \(ESP32-E/M0\)](#) x1
- [Gravity: Digital 10A Relay Module](#) x1
- [Gravity: I2C HUB](#) x1
- [Gravity: LED Button - White](#) x1
- [Gravity: LED Button - Yellow](#) x1
- [Gravity: SGP40 Air Quality Sensor](#) x1
- [Fermion: Multifunctional Environmental Sensor](#) x1