

Grove Smart Plant Care Kit



Introduction section

Grove Smart Plant Care Kit is a ease-to-use and advanced tool kit for you to develop a smart system for plants. It favors extensibility to achieve more applications with just a few adjustments. The kit implements two functions. One is to detect environment factors affecting plant growth such as soil moisture, illumination intensity, temperature and air humidity, all the data detected can be read on OLED display. Another one is to water plants automatically through the environment monitoring.

Features

- Ease to use, you can build your plant-care system quicker.
- Smart and highly integrated modules which enable rich features to your projects.
- better extensibility to give you projects more versatile.

Specification

Please refer to each modules' specifications:

- [Grove - Temp & Humidity Sensor](#)
- [Grove - Sunlight Sensor V1.0](#)
- [Grove - Water Flow Sensor](#)
- [Grove - Moisture Sensor](#)

- [Grove – Encoder](#)
- [Grove-OLED Display 1.12](#)
- [Grove - Button](#)
- [Grove - Relay](#)
- 12V DC Water Pump
- 12V Power connector
- [Base Shield V2](#)

Application Ideas

- Smart plant-care system.
- Household air humidity and temperature detector.

Note that the ideas listed in this section is only some clues to this kit's massive applications.

Hardware Overview

This kit include these modules:



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Grove Encoder



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Grove water flow sensor



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Grove relay



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Temp & Humidity Sensor



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Grove OLED Display 1.12



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Grove button



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Moisture Sensor



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Water Pump



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Base Shield V2



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Note that there are lack of two other images which will be added soon

- Grove - Temp & Humidity Sensor, to detection the temperature & humidity
- Grove - Sunlight Sensor V1.0, to detect illumination intensity
- Grove - Water Flow Sensor, to detect the speed and volume of water flow
- Grove - Moisture Sensor, to detect the soil moisture
- Grove - Encoder, to adjust knob
- Grove - OLED Display 1.12, *to display parameters*
- Grove - Button, to adjust parameters
- Grove - Relay, to control water pump
- 12V DC Water Pump, to pump the water
- 12V Power connector, to connect power supply
- Base Shield V2, expansion board to connect Groves with your Arduino

Parts list

Part list in [PDF format](#).

Getting Started

Note that this section only shows you how to build basic development environment.

[Guide of building IDE on Arduino UNO.](#)

[Guide of building IDE on Seeeduino V4.2\(compatible with Arduino\)](#)

Note that you can use [Base shield](#) for connecting modules quickly.

Demos

Note that this section will show you a demo which implemented some realistic functions.

[Manual to build a Grove Smart Plant Care Kit.](#)