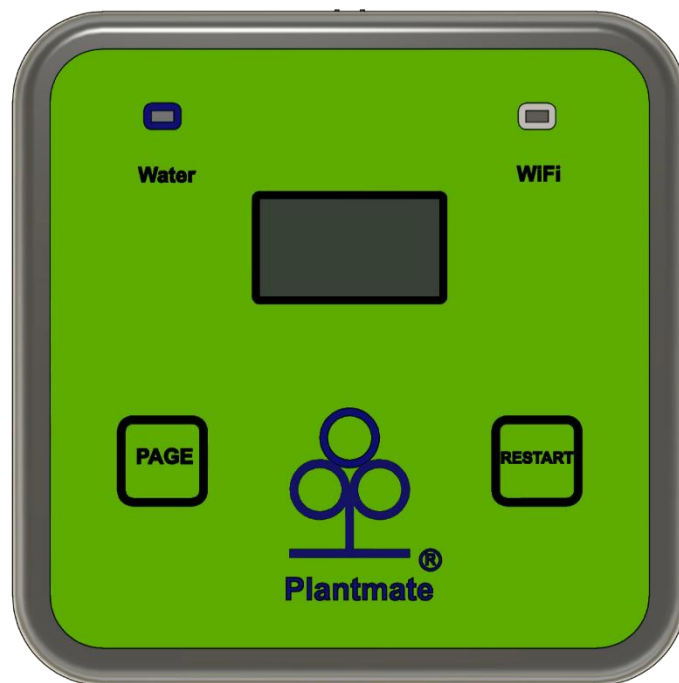


Plantmate® Automatic Watering System
Model: PMWC-02

User Guide



Scan to watch how to use the Cube on Video



Plantmate®

Model: PMWC-02

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 plantmateinfo@gmail.com

Overview

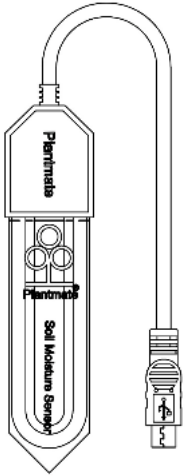
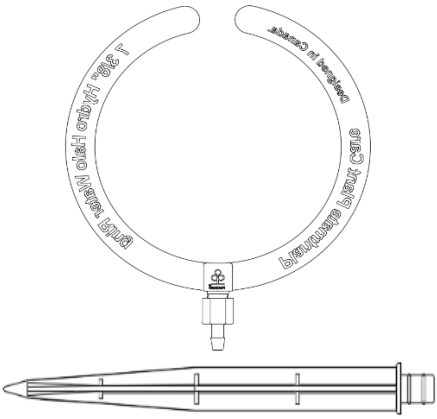
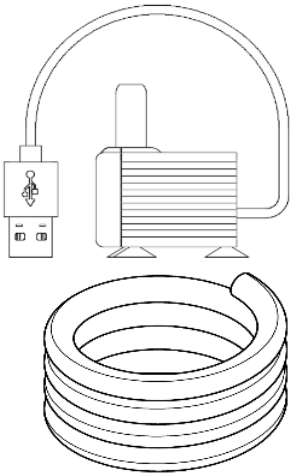
Thank you for purchasing the **Plantmate® PMWC-02 Automatic Watering System**.

This smart watering system helps maintain healthy plants by monitoring soil moisture and automatically supplying water as needed.

Package Contents

- PMWC-02 Main Unit
- Soil Moisture Sensors × 2
- Water Pumps × 2
- Water Tubing × 2
- Water Rings × 2
- Support Sticks × 6
- Illustration Card
- User Guide

Accessories

		
The Sensor *2	Water Ring * 2 Support Stick * 6	Water Pump * 2 Water Tubing *2

Requirements

- A stable **Wi-Fi network with Internet access**
- A **DC 5V USB-C power source** (≥ 2.0A)
- A **water container** large enough for two pumps

- A **USB-C cable** long enough to reach your outlet
- A **pair of scissors** to cut tubing
- (Optional) A **microSD card** ($\leq 16\text{GB}$, recommended: 1GB SDHC Class 10, formatted FAT32)

⚠ Your mobile device or computer and the PMWC-02 must be connected to the **same Wi-Fi network** during setup.

The system range is approximately **30 meters (100 feet)** from your router.

Before You Begin

(Water container and USB-C cable purchased separately.)


1. Place a cloth nearby in case of water spills.
2. Prepare your water container and USB-C power cable.
3. Connect the accessories following the illustrations provided in the package, but **do not plug in the power cable yet**.

Assembly Instructions


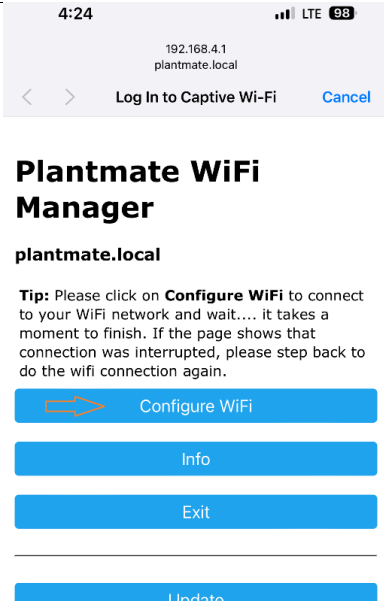

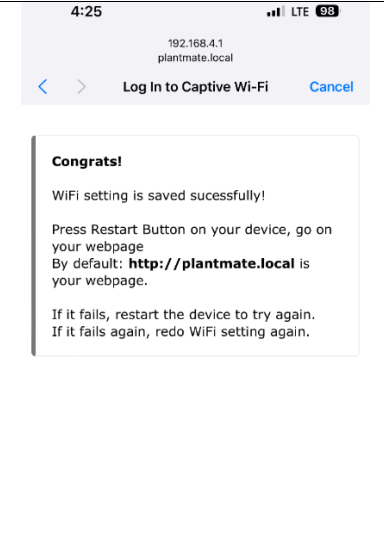
1. Insert **three support sticks** into each **water ring** and place them into the soil.
2. Insert the **moisture sensor** into the soil **close to** the nozzle hole.
 - If the sensor is too far from the nozzle hole, the device may not detect moisture accurately.
3. Place each **pump** into the water container.
 - The water container should be positioned **lower than the plant pots**.
4. Repeat for the second plant if using two.

Wi-Fi Connection Setup

⚠ If you have multiple PMWC-02 devices that have been set up under the same wi-fi network, you need to change the other webapp names other than <http://plantmate.local> before setting up this device.

<p>Plug in the power cable. The device screen will turn on. Complete configuration within 2 minutes.</p>	
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Follow the 4 steps to finish the Wi-Fi Connection Setup

<p>Step 1: On your mobile device or computer, open Wi-Fi Settings and connect to the network named "Plantmate.local."</p>	<p>Step 2 Once connected, your browser should automatically open the Plantmate Wi-Fi Manager page. Tap Configure WiFi.</p>
	
<p>Step 3: Choose your home Wi-Fi network (same as your phone or computer) and enter the password. Tap Save.</p>	<p>Step 4: Now you can access the web app by scanning the QR code on Screen 10 or entering http://plantmate.local in your browser.</p>
	





If connection fails:

- Press the **[Restart]** button on your device and try again.
- If still unsuccessful, use a **pen or pin** to press the **Wi-Fi Reset** button on the back and redo the setup.

Web App Overview

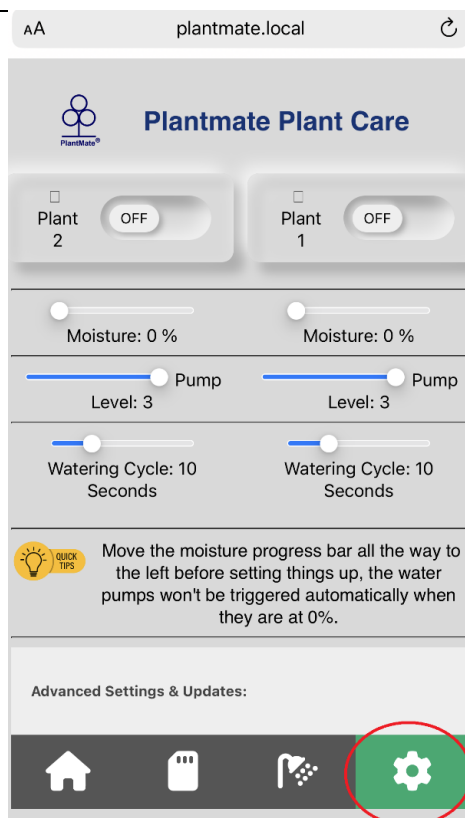
Open your browser and go to <http://plantmate.local> (on a device connected to the same Wi-Fi network).

You'll find **four main pages** at the bottom menu:

-  **Home**
-  **SD Card**
-  **Pump Actions**
-  **Settings**


Settings Explained

1. **Moisture:** Moisture Levels, from 0% to 98% (recommended: 90%)
2. **Pump Speed:** 3 Pump Speed Levels, High, Medi and Low (recommended: High)
3. **Watering Cycle:** Pump running time per cycle 4-20 seconds (Recommended: 8)
(Water pump will run for this duration, then pause briefly to allow the soil to absorb the water. If necessary, the system will repeat this cycle automatically.)



Device Screen Guide

Press the [Page] button on your device to switch between the 10 display pages:

<div><div>Screen 1: System Status</div><div><div>System Status:</div><div>SD Card is working, Wi-Fi is working. http://plantmate.local</div></div></div>	<div><div>Screen 2: Real-time Data</div><div><div><div>Temp</div><div>24C</div></div><div><div>Humi</div><div>45%</div></div><div><div>Light</div><div>47%</div></div></div><div><div><div>Plant 2</div><div>92%</div></div><div><div>Plant 1</div><div>90%</div></div><div><div>OK</div></div></div></div>	<div><div>Screen 3: Plant1 Settings</div><div><div>Plant 1 Setups:</div><div>Moisture Trigger: 92%</div><div>Pump Speed: 3</div><div>Water Cycle: 10 Sec.</div><div>Page To next page</div></div></div>	<div><div>Screen 4: Plant2 Settings</div><div><div>Plant 2 Setups:</div><div>Moisture Trigger: 92%</div><div>Pump Speed: 3</div><div>Water Cycle: 10 Sec.</div><div>Page To next page</div></div></div>	<div><div>Screen 5: Pump 1 last 5 Actions</div><div><div>Pump 1 Last 5 Action</div><div>2025-10-25 18:00:18</div><div>2025-11-03 17:59:53</div><div>2025-12-28 17:59:07</div><div>2025-12-29 07:05:03</div><div>2026-01-18 01:18:59</div></div></div>
<div><div>Screen 6: Pump2 last 5 Actions</div><div><div>Pump 2 Last 5 Action</div><div>2025-10-25 18:00:18</div><div>2025-11-03 17:59:53</div><div>2025-12-28 17:59:07</div><div>2025-12-29 07:05:03</div><div>2026-01-18 01:18:59</div></div></div>	<div><div>Screen 7: Time Zone</div><div><div>Time Zone Setup:</div><div>2025-10-25 22:47:42</div><div>GMT: -8:00</div><div>DST: -1:00</div></div></div>	<div><div>Screen 8: System Configs</div><div><div>System Configuration</div><div>OS Version: v_16</div><div>Host: esp32-586DC7</div><div>IP:192.168.1.94</div><div>Chip#:ESP32-D0WDQ61</div><div>Chip Core: 2</div></div></div>	<div><div>Screen 9: Network (SSID)</div><div><div>WiFi Network (SSID):</div><div>Shawcable1225</div></div></div>	<div><div>Screen 10: Webapp QR</div><div><div>Scan QR to open Plantmate webapp</div><div></div></div></div>

Reset Options



Wi-Fi Reset

- Deletes your Wi-Fi settings.
- Use when you've changed your router or Wi-Fi password.
- Press the **Wi-Fi Reset** button on the back using a pen or pin, then follow the *Wi-Fi Connection Setup* steps again.

Factory Reset

- Erases **all** settings and configurations.
- Use a pen or pin to press the **Factory Reset** button on the back.

LED Indicators

LED Color	Status	Meaning
 Blue (flashing)	Tank Empty	Refill the water container
 White (flashing)	Wi-Fi Error	Check your Wi-Fi connection

Frequently Asked Questions (FAQ)

Q1: How can I check the system status?

A: Press the **[Page]** button on the device or open your **web app**.

Q2: What is the Wi-Fi coverage range?

A: Approximately **30 meters (100 feet)**. Move the device closer to your router if connection drops.

Q3: The device shows "Check Water Needed" but my tank is full.

A: Make sure the **moisture sensor** is placed **close to the nozzle hole**. If it's too far, moisture readings will be inaccurate.

Q4: How do I reset the soil moisture sensors?

A: Open the **web app**, go to **Advanced Settings**, and follow the on-screen reset instructions.

Q5: My microSD card isn't working, or the web pages are blank.

A:

- Use a **1GB–16GB SDHC Class 10** card formatted as **FAT32**.
- If files on the SD card are too large, delete old files to free up memory.

- Remove and reinsert the card to refresh the system.
- Always back up important files before deleting.

Q6: Who can access my device?

A: Anyone connected to the **same local Wi-Fi network** (e.g., family members).

Q7: Can someone outside my Wi-Fi network access it?

A: No. The device is accessible only within your **local Wi-Fi network**.

Q8: I see a “DNS_PROBE_FINISHED_NXDOMAIN” error. What should I do?

A:

- Use <http://plantmate.local>, *not* https://.
 - Ensure your phone or computer is on the **same Wi-Fi network** as the device.
 - Move the device closer to your router.
 - If you have Wi-Fi boosters or multiple networks, switch to the one with the strongest signal.
-

Safety & Maintenance

- Keep the device dry; avoid water contact with electrical parts.
 - Always unplug before cleaning.
 - Use clean water to prevent clogging in the pumps and tubing.
 - Do not disassemble or modify the device.
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Support

If you experience any issues or have questions, please contact:

 plantmateinfo@gmail.com

 www.plantmate.ca
