

DiFluid OmniFlux

User Manual

Contents

Please read this manual carefully to ensure that you use this product correctly and safely.

- Model: DFT-CRM101
- Thank you for purchasing the DiFluid OmniFlux Smart Roast Monitor Analyzer.
- Due to continuous improvements, the contents and product specifications described in this user manual are subject to change without prior notice.
- We have made every effort to ensure the accuracy of this manual at the time of writing. If you find any issues, please let us know.

Caution:

! The latest product specifications and details are displayed in the detailed electronic manual.

! You can download the latest digital version of the manual from the following website:



- ! Do not look directly into the laser emitter to avoid laser exposure to the eyes, which may cause vision damage.
- ! Do not open the casing for repairs unless you are a qualified technician. Doing so will void the warranty, may damage the device, and result in loss of functionality.
- ! The company is not responsible for any damage caused by improper use of this product (including accessories).
- ! The company shall not be held liable for any direct, indirect, or other damages arising from defects in this product, even if the possibility of such damages was advised. We also assume no responsibility for any third-party claims.
- ! If you notice any abnormality with the device, please contact the customer service of the store where you purchased it.

January 2026, V0.1

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Core Features Introduction

OmniFlux performs colorimetric detection by utilizing multi-modal sensing and intelligent analysis to support precise monitoring and data recording throughout the entire roasting process. The system is divided into four main modes and a tools mode, meeting the multi-dimensional detection needs for color, temperature, sound, and more, during various user scenarios.

1. Four Detection Modes

Color Test

- 1) Quickly measures the average color value of the current sample, used for static color assessment of roasted coffee beans, ground coffee, etc.
- 2) This mode supports multiple measurements at a single point with average value output, suitable for daily calibration and comparison.

Color Scan

- 1) The user holds the device or moves the bean tray for area scanning, outputting a real-time color distribution map to observe the color variation in both whole bean and grounds.
- 2) Suitable for assessing roasting uniformity and identifying abnormal areas.

Roast Track

- 1) Fixed installation near the roaster, allowing real-time recording of multi-modal data such as color values, sound, temperature, etc., throughout the entire roasting process.
- 2) Supports automatic calibration of distance, within the acceptable range; a prompt will appear if distance exceeds the limit.
- 3) Can integrate with sensors like PT100 to synchronize temperature curves, enabling integration with traditional roasting record tools. (Temperature probes are sold separately.)

Cool Track

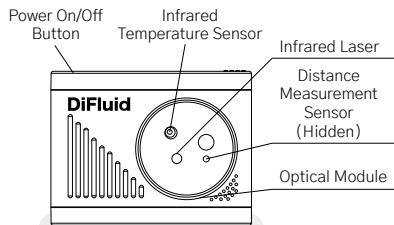
- 1) Used to monitor color value changes and temperature decline trend of coffee beans during the post-roasting cooling phase, automatically plotting time, color, and temperature curves.
- 2) Supports real-time color value histograms and multi-test average analysis.
- 3) Recommended detection distance and angle are the same as in the color scanning mode; any deviation will prompt for adjustment.

2. Practical Tools Section

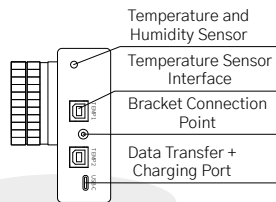
In addition to the detection modes, the system includes various auxiliary tools to help users quickly assess and use on-site.

- 1) **Distance Meter:** Real-time measurement of the distance between the device and the target.
- 2) **Leveling Tool:** Used to measure and correct the horizontal angle of the object being measured.
- 3) **Thermometer:** Real-time display of the temperature in the area where the red dot is located, suitable for measuring environmental temperature, etc.
- 4) **Temperature and Humidity Meter:** Used to record changes in environmental parameters (temperature/humidity).
- 5) **Probe Thermometer:** External device for real-time measurement of bean temperature, chamber temperature, and other scenarios such as water temperature, etc.

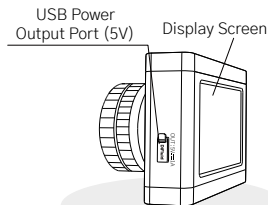
Know the Components



OmniFlux Main Unit (Back)



OmniFlux Main Unit (Bottom)



OmniFlux Main Unit (Front Side)



Color Value Adapter Tube *1 (Metal)



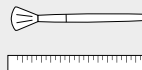
Sample Tray *1 (Including Tray)



Two-Color Calibration Card *1



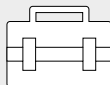
Cleaning Cloth *1



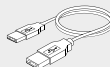
Cleaning Brush *1, Scraper *1



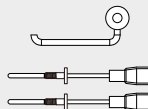
User Manual *1 (Including Warranty Card), QR Code Card *1



Toolbox *1



USB-C Charging Cable *1



USB Light *1 (Sold Separately), Temperature Probes *2 (Sold Separately)



Fixed Bracket *1

Specifications

Category	Detection Object	Item	Indicator	Measurement Method and Use
Color Test Mode	Roasted Coffee Beans (Flat and Evenly Spread) / Ground Coffee (Flat and Evenly Spread)	Color Value (Beans)	Accuracy: ± 0.5 (Measurement Range 0~150 Agtron)	Static Measurement, Used with Color Value Adapter Tube; Accurately Obtain the Average Color Value of Samples (Beans and Ground).
		Color Value (Ground)	Accuracy: ± 0.5 (Measurement Range 0~150 Agtron)	
Color Scan Mode	Roasted Coffee Beans (No Need to Flatten) / Ground Coffee (No Need to Flatten)	Scan Color Value (Beans)	Accuracy: ± 2 (Measurement Range 0~150 Agtron)	Move device or or sample, maintaining a vertical angle; suitable for scanning bean trays, grounds trays, etc.; supports not only single measurements but also continuous data collection with automatic average calculation; color value, grade, and histogram are all displayed on one screen.
		Scan Color Value (Ground)	Accuracy: ± 1 (Measurement Range 0~150 Agtron)	
		Scan Distance	20 ~ 40 cm	
		Scan Angle	$\pm 10^\circ$ (Range: -10° to 10°) Vertical Downward	

Category	Detection Object	Item	Indicator	Measurement Method and Use
Roast Track Mode	Beans inside the roasting machine chamber	Color Value (Beans)	Accuracy: ± 2 (Measurement Range 0~200 Agtron)	The device is fixed outside the roasting machine window; it records the color curve in real time during the roasting process. The temperature probe can measure bean temperature and chamber temperature in real time (temperature probes are sold separately).
		Monitoring Distance	20 ~ 60cm	
		Angle	Angle: Any (no obstruction in the optical path)	
Cool Track Mode	Beans in the cooling tray	Cooling color value	Accuracy: ± 2 (Measurement range 0~150 Agtron)	The device is fixed vertically above the cooling tray to monitor the beans; it records the temperature and color changes of the beans during the cooling process, along with the color value distribution histogram.
		Infrared temperature measurement	Accuracy: $\pm 1^{\circ}\text{C}$ (0~320 $^{\circ}\text{C}$) for temperature measurement, monitoring distance around 20~25 cm	
		Monitoring distance	20 ~ 40 cm	
		Scanning angle	$\pm 10^{\circ}$ (-10~10 $^{\circ}$) vertically downward	

Category	Detection Object	Item	Indicator	Measurement Method and Use
Tool Module	None	Infrared Temperature Measurement	Accuracy: $\pm 1^{\circ}\text{C}$ ($-70\sim 380^{\circ}\text{C}$)	Suitable for coffee roasting, quality control, equipment calibration, daily life, outdoor activities, and other scenarios; infrared laser for distance measurement; measuring and calibrating the horizontal angle of the object; the screen displays the infrared temperature of a specific area (spot measurement); environment temperature and humidity are displayed simultaneously.
		Laser Distance Measurement	Range: 5cm~50m Accuracy: $\pm 3\text{cm}$	
		Level Gauge	Accuracy: $\pm 1^{\circ}$	
Battery Life and Power Supply	None	Main Unit Battery Life	≥ 4 hours	None
		Charging Time	4 hours (5V/1A) supports charging while in use	
		Discharge Output	5.0 ~ 5.2 V / 1A	

About the Power Supply

This product uses a lithium-ion battery.

Precautions for using lithium-ion batteries

To ensure safety, please observe the following precautions when handling the battery:

- ! If not using the device for a long time, fully charge it before storage and recharge it periodically.
Storing with low power may damage the hardware.
- ! Do not disassemble or modify the battery. Damaging its safety mechanisms may cause overheating, smoke, explosion, or fire.
- ! Avoid charging near flames or in high heat (e.g., direct sunlight).
High temperatures may disable safety circuits or trigger dangerous chemical reactions.
- ! If you detect odor, heat, discoloration, deformation, or other issues during use, charging, or storage, stop using the product immediately. Continued use may lead to overheating, smoke, explosion, or fire.

Power Usage Precautions

- 1) Charge the device if it won't turn on or the battery is low.
- 2) The charging port is at the bottom. Use the included or a standard USB cable.
- 3) USB power adapter not included. Use a 5V/1A adapter sold separately.

Pre-usage Notes

To ensure the device operates at its best and provides accurate and reliable data, please complete the following preparations before formal use.

Device Battery Check

- 1) Ensure the device has sufficient battery power. It is recommended to start using the device when the battery is above 15%. The device supports charging while in use.
- 2) When the battery is low, please use the provided power cable and connect it to a stable power adapter for charging before use.

Lens Cleaning

- 1) Use a clean, soft, lint-free cloth to wipe the lens surface, avoiding fingerprints, dust, and oil stains that may affect data collection.

Physical Button Operations

- ! This device is equipped with a single physical button, which has multiple functions.
- ! In different interface modes, a short press will automatically adapt to the current task status, making it easier to quickly start or exit detection.

When powered off

- 1) **Short press or long press:** Either will turn on the device.

When powered on

1) Long press

a. Press and hold for 3 seconds:

The screen will display a **"Shut Down"** prompt. Release the button to complete the shutdown.

b. Press and hold for 10 seconds:

The device will forcefully shut down, useful in cases of failure to shut down normally.

2) Short press

a. If not currently in the detection or calibration page:

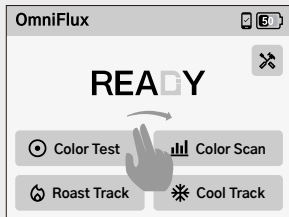
A short press will directly return to the main interface.

b. If you are currently on the detection or calibration page:

First short press: Start the current function (e.g., start detection).

Press again: Stop the current function (e.g., stop detection).

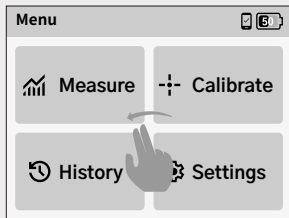
Touch Screen Operations



Swipe from left to right
on the "Home" screen



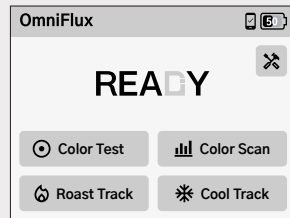
Enter the "Menu" page

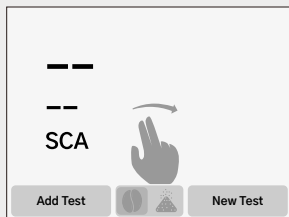


Swipe from right to left
on the "Menu" page



Return to the "Home" screen

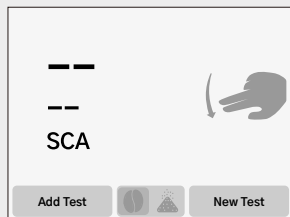
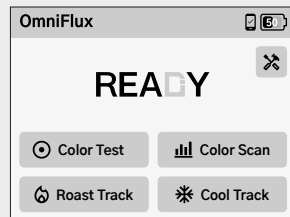




Swipe from left to
right on any subpage



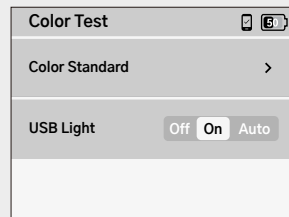
Return to the previous page



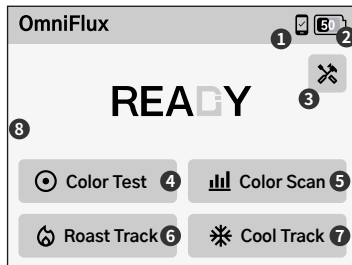
Swipe down
on any detection page



Expand the dedicated settings
page for the current mode



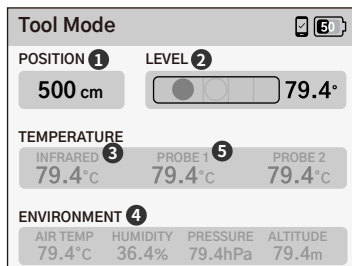
【Home Page】 Introduction



Number	Description
①	Indicates the connection status with the app. Successfully connected to the app:  (Icon appears) Not connected to the app:  (Icon does not appear)
②	Battery percentage display.
③	Tools section (refer to page 19 for details)
④	Color Test section (refer to page 30 for details)
⑤	Color Scan section (refer to page 36 for details)
⑥	Roast Track section (refer to page 42 for details)
⑦	Cool Track section (refer to page 58 for details)
⑧	Swipe from left to right to view the test history and the settings page.

Tools Section

On the home page, tap the tool icon in the top right corner to access the tools page.

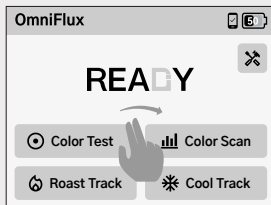


Number	Tool	Description	Application
①	Measuring Instrument	Uses infrared laser for distance measurement. Range: 5cm~50m, Accuracy: ±3 cm.	Roasting: Measures the distance between the roaster and the sampling location, assisting in calibration. Home: Home measurements, interior design, and picture hanging positioning.
②	Level Gauge	Used to measure the horizontal angle of an object.	Roasting: Ensures stable device installation to avoid tilting that could affect measurements. Home: Furniture leveling, adjusting the position of picture frames/cabinets.

Number	Tool	Description	Application
③	Thermometer	Measuring range: -70~380°C; Real-time display of infrared temperature in a specific area (spot measurement).	Roasting: Quickly detects surface temperature of equipment and cooling tray temperature. Home: Detects cooking pot temperature and air conditioning outlet temperature.
④	Temperature & Humidity Meter	Displays environmental temperature, humidity, air pressure, and altitude.	Roasting: Monitors the temperature and humidity of the roasting workshop and records roasting conditions. Home: Monitors indoor environment at home, wine cellar/storage management.
⑤	Probe Thermometer	External temperature probe needs to be purchased separately.	Roasting: Precisely measures the temperature of coffee samples or internal equipment temperatures. Home: Detects the center temperature of ingredients or liquids.

Calibration

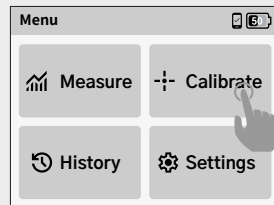
Path: From the Home page, swipe from left to right to enter the menu page, then tap "Calibration."



On the page,
swipe from left to right.



Tap "Calibration."



1. Color Value Calibration

- ! All color value detection modes of the device use this same calibration method.
- ! Calibration Frequency: It is recommended to perform calibration once every week.

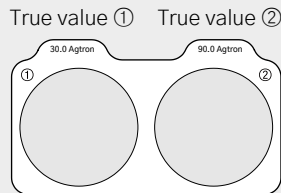
Step 1: Open the two-tone card cover (**Note:** Do not scratch the color card detection area).



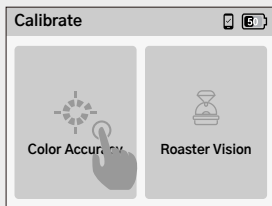
Open the two-tone card cover.



Check the true values ① and ②.



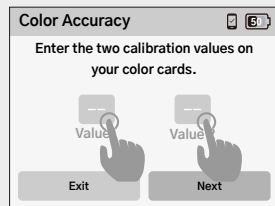
Step 2: Enter the "Calibration" page, tap "Color Value Calibration" and input the true values ① and ② from the two-tone card. Then, tap "Next."



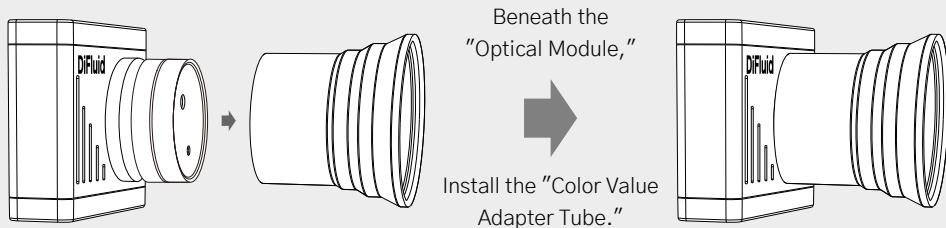
tap "Color Value Calibration."



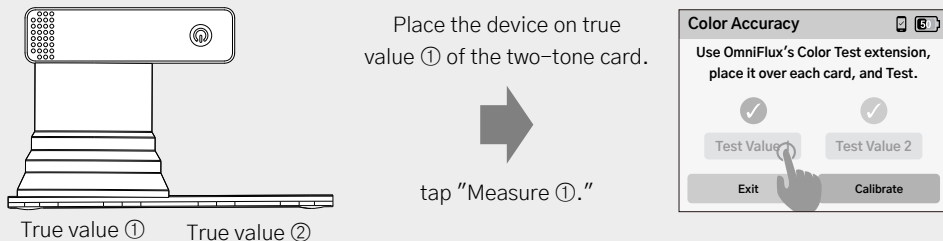
Input the true values ① and ② from the two-tone card.



Step 3: Install the "Color Value Adapter Tube" beneath the device's "Optical Module."

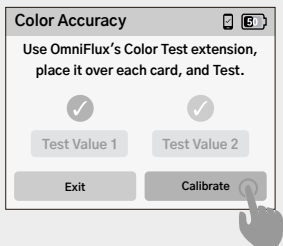


Step 4: Place the device on true value ① of the two-tone card, then tap "Measure ①."



Step 5: Repeat Step 4 by placing the device on true value ② of the two-tone card, then tap **"Measure ②."** The ✓ icon will highlight, indicating the test is complete.

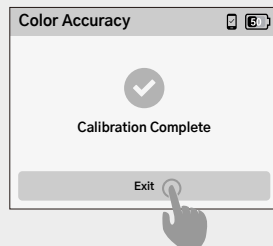
Step 6: tap **"Calibration."** Once calibration is complete, tap **"Exit"** to return to the homepage.



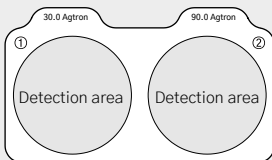
tap "Calibration."



After calibration is complete, tap "Exit."



Step 7: After using the color card, cover it properly and store it away
(**Note:** Do not scratch the detection area).



After using the color card



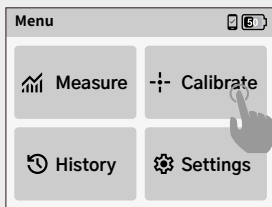
Cover it and store it away.



【Roast Track】 Calibration (Two-point calibration)

- ! Note: Each roaster only needs to undergo dual-point calibration once before the first use.
(In special cases, recalibration may be required.)
- ! This calibration is performed during an actual roasting process. Prepare enough beans to fully cover the viewing window, and follow the on-screen instructions step by step.
- ! Avoid direct perpendicular alignment; it is recommended to aim at the viewing window at a slight angle.
- ! It is recommended to aim the laser at an area where the beans are more densely packed and moving relatively slowly.
- ! Make sure that the calibration angle is as close as possible to the measurement angle to ensure accurate results. If there is any deviation in subsequent measurements, only single-point calibration is required.
(Refer to page ** for the single-point calibration method.)
- ! Raw beans should be as uniform in color as possible; otherwise, calibration may result in measurement deviations.

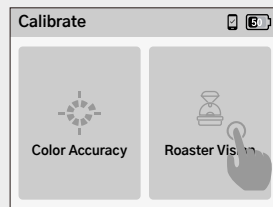
Path: On the homepage, swipe "from left to right" to enter the menu page, then tap "Calibration" ~ tap "Roaster Vision."



On the menu page,
tap "Calibration."



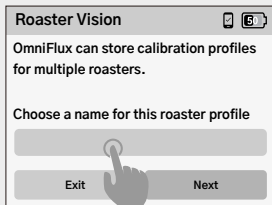
tap "Roaster Vision"



Step 1: tap "Create New Configuration."

(The configuration named Default is the default setting and can be ignored.)

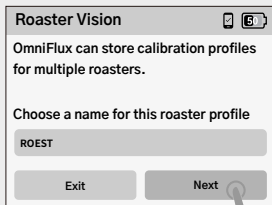
Step 2: Tap the input box and enter the name of the roaster to be configured. After taping Done, proceed to the next step. Open the green bean color value input box. You can measure the color value using the "Color Test" mode (refer to page 32 for the measurement method), or you can manually enter a known color value. Finally, tap Calibrate.



tap the "input box".



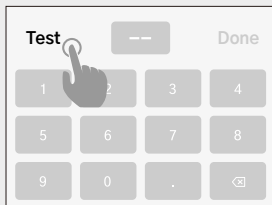
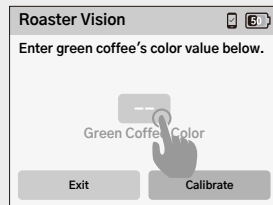
Enter the name.



tap "Next".



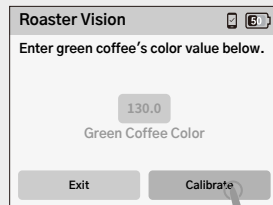
tap the "input box".



Obtain by "Entering the green bean color value" or "Measuring".



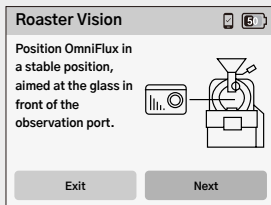
tap "Calibrate".



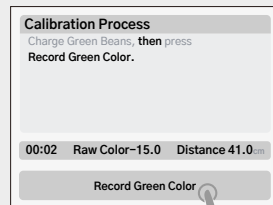
Step 3: Install the bracket (refer to page 67 for the bracket installation method).

Aim the device at the roaster's observation window from a distance of 20–60 cm, then tap Next. First, pour the green beans into the roaster, then tap Record Green Beans. Start the roasting process and wait for it to finish. Before dropping the roasted beans, tap Record Roasted Beans, then quickly drop the beans.

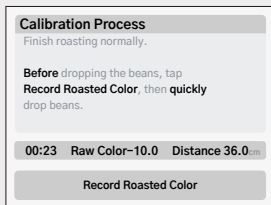
Install the bracket and align
it with the observation window.



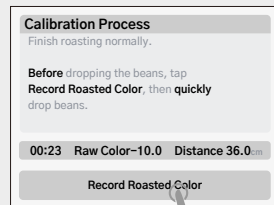
Note: After pouring the green beans into the roaster and starting the roast, then tap "Record Green Beans." At this point, simply complete the roast as normal; no further operation of the device is required.



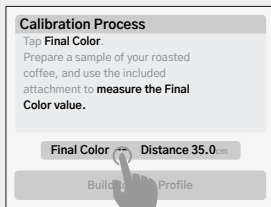
Wait for the roasting to finish.



Before finishing the roast and dropping the beans, first tap "Record Roasted Beans", then open the discharge door to quickly drop the beans.



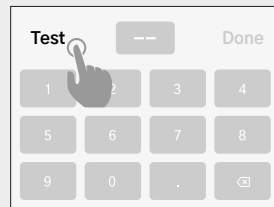
Step 4: After the roasted coffee beans have cooled, tap the input box for the final color value. You can measure the color value using the "Color Test" mode (refer to page 32 for the measurement method), or manually enter a known color value, then tap Done. The calibration for this roaster is now complete.

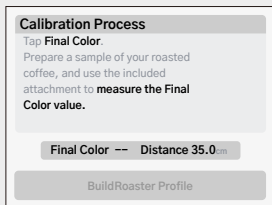


tap the "input box" and enter the color value.



Obtain the green bean color value by "Entering" or "Measuring."

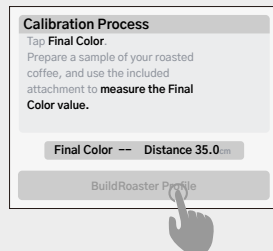




After entering the information.



tap "Complete Configuration."

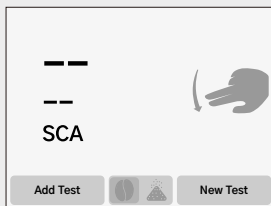


【Color Test】 Operating Method

- ! Before measurement, ensure the lens surface is free of fingerprints, dust, etc. Wipe it clean with a soft, lint-free cloth.
- ! Before measurement, please calibrate on the menu page; calibration frequency is recommended once a week. (Refer to page 21 for color value calibration)
- ! The sample must be filled and leveled.
- ! Detectable sample types: roasted beans, coffee grounds; use the matching grounds tray.
- ! This mode is for stationary measurement and requires the color value adapter tube (included accessory).
- ! Required tools: main unit, color value adapter tube, metal sample tray (with tray), scraper, two-tone calibration card.

1. Exclusive【Settings】for This Mode

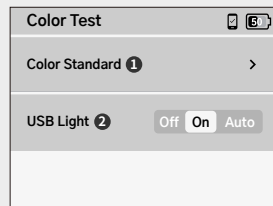
- 1) On the homepage, tap "Color Test" ~ "Swipe down from top to bottom" to open the dedicated settings page for the current mode.



On the detection page,
"Swipe down from top to bottom."



Open the dedicated settings page.



Number	Settings page item description
①	Select the standard as SCA or COMMON.
②	Switch setting for the USB lighting (sold separately).

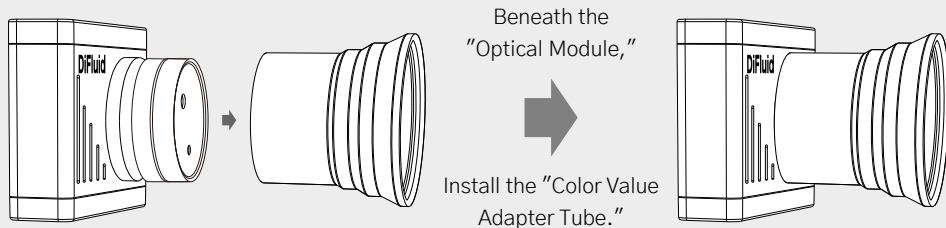
2. Measurement Method

! For a new batch of tests, you need to tap **"New Test"** the first time.

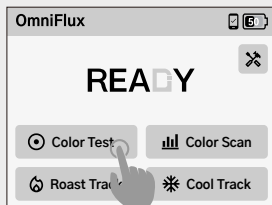
! **"Add Test"** is suitable for multiple measurements where the results need to be accumulated and the average value displayed.

User Behavior	Action to be taken	For example
User changed the sample (for example, changed a batch of beans or powder).	New Test	Measure the first batch of beans and tap "New Test" ; the color value result is 80. Measure the second batch of beans and tap "New Test" ; the color value result is 130. Measure the third batch of beans and tap "Add Test" ; it will display the average of the second and third batches, excluding the first batch. Measure the fourth batch of beans and tap "Add Test" ; it will display the average of the second, third, and fourth batches, excluding the first batch. For a new batch of beans, tap "New Test" ; a new round of testing will begin, and the previous results will not be accumulated.
The user has completed a full measurement cycle and is ready to start a new batch of measurements.	New Test	
When the same batch of samples is measured in portions (e.g., 2g per time, 5 times in total) and the total of 10g samples is measured to obtain the average value of all measurements.	Add Test	
If the user wants to average the color value from multiple angles of the same batch of samples, such as by "rotating the sample tray" or "redistributing the powder" to measure multiple times.	Add Test	

Step 1: Install the "Color Value Adapter Tube" beneath the device's "Optical Module."

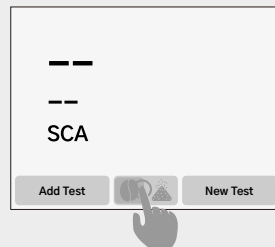


Step 2: On the homepage, tap "Color Test" and select the sample type (roasted beans or coffee grounds).

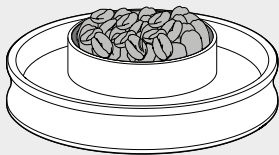


On the homepage,
tap "Color Test."

Select the sample type.



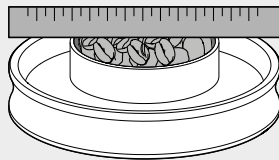
Step 3: After filling the sample, level it using the scraper
(use the shallow groove for powder, and the deep groove for beans).



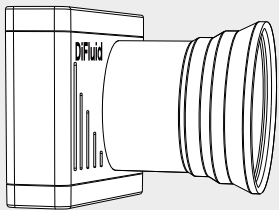
After filling the sample



Level it with the scraper.



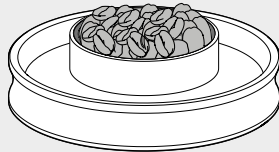
Step 4: Attach the installed device to the sample tray.



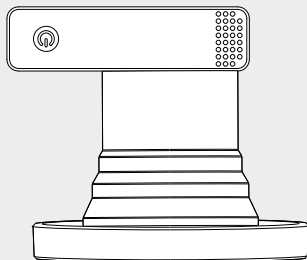
The installed device



Attach it to the sample tray.



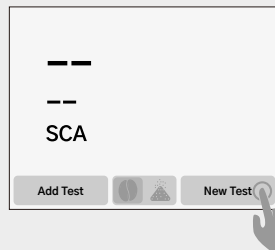
Step 5: After attaching the device to the sample tray, for a new batch of measurements, tap **"New Test"** first.



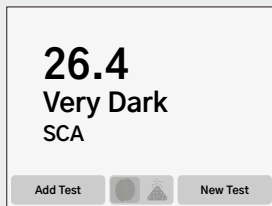
Align with the edge of the metal tray and attach it.



For new batch detection, tap **"New Test."**



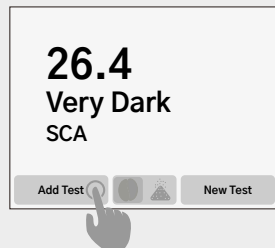
Step 6: After displaying the result of this measurement, tap **"Add Test"** to append it.
(This will display the average value of this result + the result of the last **"New Test."**)



After displaying the test result



tap **"Add Test."**

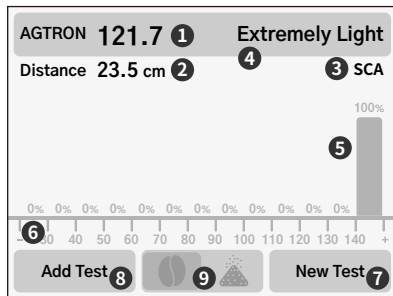


- ! Explanation of "New Test" and "Add Test": Please refer to page 32.
- ! **Historical Results Confirmation:** On the homepage, swipe right → History Records → Color Test.

【Color Scan】 Operating method

- ! **Before Measurement:** clean the lens with a soft, lint-free cloth to remove fingerprints and dust.
- ! **Bean Tray Requirements:** Use a bean tray with a diameter of at least 13 cm for scanning.
- ! **Machine and Sample Distance:** Maintain a distance of 20–40 cm between the machine and the sample.
- ! **Scanning Angle:** Scan vertically downward at an angle of $\pm 10^\circ$ ($-10^\circ \sim 10^\circ$).
- ! **Detectable Sample Types:** Roasted beans, coffee grounds; no need to level the sample, just place the bean tray and measure directly.
- ! **Shaking the Machine:** Handheld machines should be gently shaken within the 20–40 cm distance, or use a fixed stand to shake the sample tray.
- ! **Calibration Method in This Mode:** Same as in the Color Test mode. Calibration frequency is recommended once a week (see page 21).
- ! **Sample Color:** Ensure the sample color is uniform to avoid color mixing affecting the result.
- ! **Required Tools:** Main unit, fixed stand.

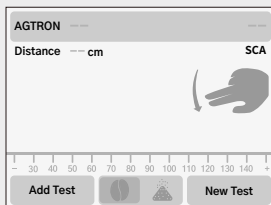
1. Page Display Instructions



Number	Description
①	AGTRON Value Result.
②	Distance Prompt During Detection: If the distance is not within 20–40 cm, a red flashing indicator will appear, and the detection will pause. Detection resumes once the correct distance is restored.
③	Roasting Standard SCA or COMMON: Selectable from the dropdown settings.
④	Roasting Standard Corresponding to Roasting Degree Description.
⑤	Result Distribution Histogram: Provides detailed distribution ratio and trends for each color value.
⑥	Color Value Range and Step Count on Distribution Graph: Select the desired color value range and span from the dropdown settings.
⑦和⑧	Explanation of New Test and Add Test (Please refer to the introduction on page 32).
⑨	Sample Type Selection Before Detection: The currently selected sample type will be highlighted.

2. Exclusive【Settings】for This Mode

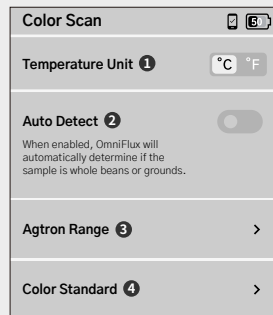
- 1) On the homepage, tap "Color Scan" ~ "Swipe down from top to bottom" to open the dedicated settings page for the current mode.



On the detection page,
"Swipe down from top to bottom."



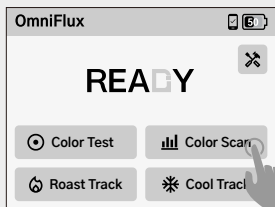
Open the dedicated settings page.



Number	Settings Page Item Description
①	Select the temperature unit as °C or °F.
②	After starting, OmniFlux will automatically identify whether the sample is beans or grounds.
③	Set the color value distribution range and step size: 70-130, 10 Step (default) 70-130, 5 Step 30-150, 10 Step
④	Select the standard as SCA or COMMON.

 Shake the device, and let the sample tray sit still.

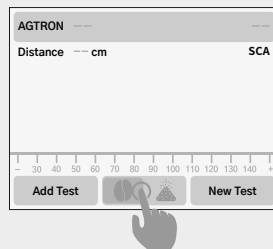
Step 1: On the homepage, tap "Color Scan" and select the sample type (roasted beans or coffee grounds).



On the homepage,
tap "Color Scan."

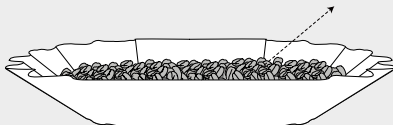


Select the sample type.



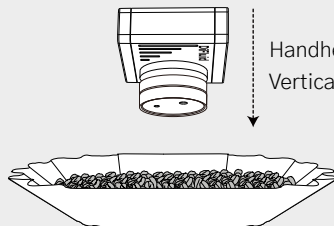
Step 2: Place the sample into the bean tray (recommended diameter around 15 cm).
The sample does not need to be leveled.

The sample does not need to be leveled.



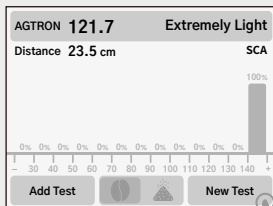
Step 3: Hold the device and shake it to scan the sample thoroughly. The scanning angle should be vertically downward at $\pm 10^\circ$ ($-10^\circ \sim 10^\circ$). (**Note:** Do not scan the edge of the bean tray.) (Scan a larger area of the beans, not just a specific point.)

Device and Sample Distance:
20–40 cm.



Handheld Shake the Device to Scan
Vertically downward: $\pm 10^\circ$ ($-10^\circ \sim 10^\circ$)

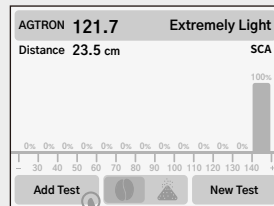
Step 4: Tap “New Test” to display the result of this measurement. Then, tap “Add Test” to append it (This will display the average value of this result + the result of the last “New Test”).



tap “New Test.” After displaying
the measurement result.



You can tap “Add Test” to
append it. It will display the
average value of both results.



! Explanation of "New Test" and "Add Test": Please refer to page 32.

! **Historical Results Confirmation:** On the homepage, swipe right → History Records → Color Scan.

【Roast Track】Calibration & Measurement

! **Before Measurement:** Ensure the lens surface is free of fingerprints, dust, etc., and wipe it clean with a soft, lint-free cloth.

! For a roaster being used for the first time, dual-point calibration must be performed before measurement (refer to page 25 for Roast Track calibration).

! If you want to use a temperature probe (sold separately) to monitor the temperature, you need to enable the probe switch in the drop-down settings.

! **Sample to be Tested:** Unroasted and roasted beans that are moved inside the roaster.

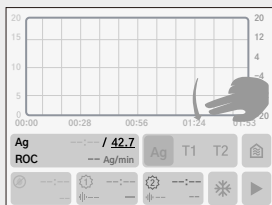
! **Required Tools:** Main unit, fixed stand.

! In this mode, it is essential to ensure that the device's placement angle during calibration is the same as the placement angle during measurement.

! The roaster's observation window should be kept as free of oil and residue as possible to ensure accurate measurements.

1. Exclusive【Settings】for This Mode

- 1) On the home page, tap "Roast Track" ~ "Slide down" to expand the dedicated settings page for the current mode.



On the detection page,
"Slide down" from the top.



Expand the dedicated
settings page.

Roast Track	
Roaster Profile ①	RTYI >
Temperature Unit ②	°C °F
Auto Stage Marking ③	>
Color Standard ④	>
USB Light ⑤	Off On Auto
Auto Start/Stop ⑥	
When enabled, the system will begin tracking automatically when beans are dropped, and will stop when they are dropped.	
Color Target Alerts ⑦	>
Temperature Probe T1 ⑧	Off On
Temperature Probe T2 ⑨	Off On

Number	Settings page item description
①	In the Roast Track Calibration section of the menu page, configure dedicated calibration parameters for each roaster. Select the configuration before roasting to perform measurements.
②	Select the temperature unit: °C or °F.
③	"Enable/Disable" automatic marking for yellowing point, first crack, and second crack. Yellowing point setting: For example, if set to +3 seconds, the yellowing point will be defined as the stage 3 seconds after the yellowing begins. First crack point setting: For example, if set to 3, the first crack point will be defined as the stage after the third crack. Second crack point setting: For example, if set to 2, the second crack point will be defined as the stage after the second crack.
④	Select the standard: SCA or COMMON.
⑤	USB lighting switch setting (sold separately).
⑥	Enable/Disable automatic tracking of charging or automatic stopping of tracking when dropping.
⑦	Enabled by default at the factory. The target color value alarm will trigger a warning when the target color value is reached.
⑧和⑨	The factory default is off. After inserting the temperature probe, you need to manually turn on this switch for the temperature to be displayed.

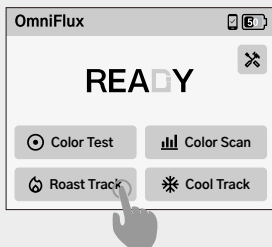
2. Single-batch roasting scenario

Step 1: Mount the OmniFlux on the bracket (refer to page 67 for bracket installation) and aim at the roaster's observation window. Try to maintain the same distance and angle as during calibration.

(Avoid direct aim; a slight angle toward the observation window is recommended.)

(It is recommended to aim the laser at a more concentrated area of the bean pile, where the beans move relatively slowly.)

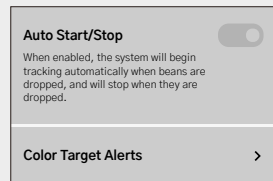
Step 2: On the home screen, tap **"Online Roasting"**. In the drop-down settings, turn off the **"Auto Start/Stop"** switch, and enable the **"Target Color Value Alert"** as needed.



On the home screen,
tap "Roast Track".



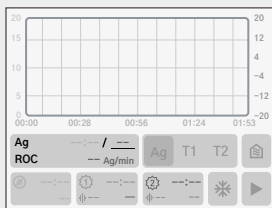
Pull-down settings:
Turn off "Auto Start/Stop" and
turn on "Color Value Alert."



Step 3: Enter the target roast color value. Start charging beans into the roaster.

After charging is complete, manually tap Start Tracking at the bottom right to begin measurement, and the curve will start recording the color value changes.

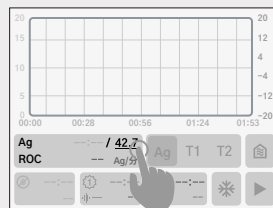
Before dropping the beans, be sure to manually tap Stop Measurement first, then immediately drop the beans.



On the home screen,
tap "Roast Track".



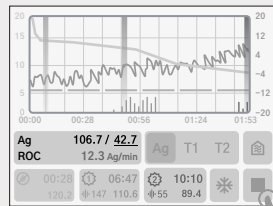
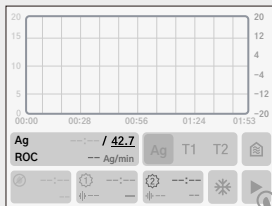
Enter the target color value.



Manually start "Roast Track."



After roasting is finished,
tap "End Roast" and
immediately drop the beans.

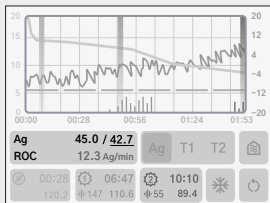


3. Single-point calibration method

- ! This calibration is used when there is a discrepancy between the color value displayed on the machine before bean drop and the actual color value after cooling.
- ! If the roasted bean color value during dual-point calibration is 60, and darker roasts are required afterward, this single-point calibration must be performed to recalibrate the curve.
- ! If there is still a deviation in the color value after single-point calibration, please perform dual-point calibration again. (Refer to page 25.)

For example: The actual final bean drop point is at 6 minutes 10 seconds. After the chart stops detecting, it remains at 7 minutes 10 seconds. The actual color value is 58, which does not match the color value of 50 shown at the time of bean drop.

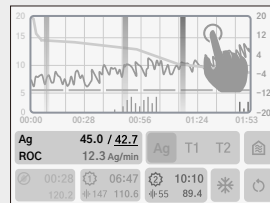
Step 1: After roasting, you can use the color value tool to measure the color value of the cooled coffee beans. If there is a deviation, on the post-roasting page, tap **"anywhere on the chart."**



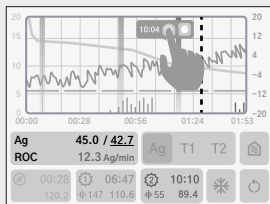
Roasting Finished Page



tap "anywhere on the chart."



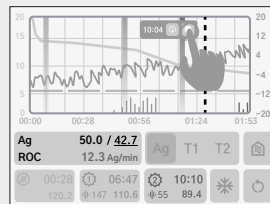
Step 2: Drag the white dashed line to 6 minutes 10 seconds, and tap the "settings icon ⚙" to complete the adjustment. The bean drop time will be automatically set to 6 minutes 10 seconds. Then, tap the "coffee bean icon ☕" in the top right corner.



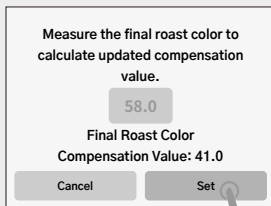
After dragging the dashed line to adjust, tap the "settings icon ⚙" to capture.



Then tap the "coffee bean icon ☕"



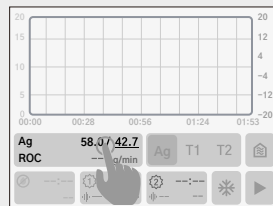
Step 3: Enter the actual coffee bean color value of 58. The bean drop color value will be updated from 50 to the actual value of 58, completing the calibration. The system will correct the color value errors during the roasting tracking process, ensuring accuracy for the next tracking with the same roaster.



After entering the actual final color value, tap "Settings."



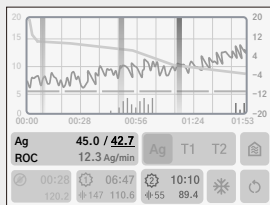
Here, the bean drop color value will be updated from 50 to the actual value of 58.



4. Re-adjusting the final drop point

For example: The actual final bean drop point is at 6 minutes 10 seconds with a color value of 58. After the chart stops detecting, it remains at 7 minutes 10 seconds with a color value of 50, while the actual color value at the time of bean drop is 58.

Step 1: After roasting, if you find that the final position where the chart stops is not the actual bean drop point, you can tap **"anywhere on the chart"** on the post-roasting page.



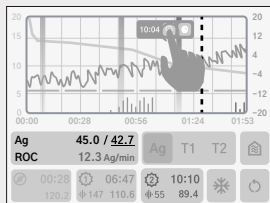
Roasting Finished Page



tap "anywhere on the chart."



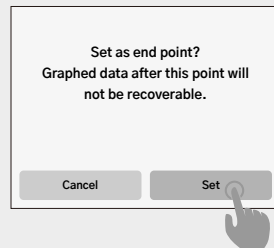
Step 2: Drag the white dashed line to 6 minutes 10 seconds, then tap the "settings icon ⚙️", and then tap "Settings" to complete the adjustment.



After manually sliding the screen to adjust to the correct position. tap the "settings icon. ⚙️ "



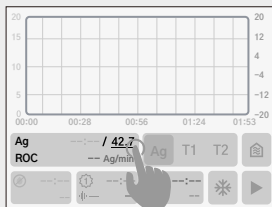
Then tap "Settings" to complete the adjustment.



5. Continuous roasting scenario

Step 1: Mount the OmniFlux on the bracket (refer to page 67 for bracket installation) and aim it at the roaster's observation window. Try to maintain the same distance and angle as during calibration. (Avoid aiming directly; a slight angle toward the observation window is recommended.) (It is recommended to aim the laser at a more concentrated area of the bean pile where the beans move relatively slowly.)

Step 2: On the Home page, tap **"Roast Track"** and enter the target roast color value. In the drop-down menu, enable **"Auto Start/Stop"** and **"Target Color Value Alert."**



Enter the target color value.

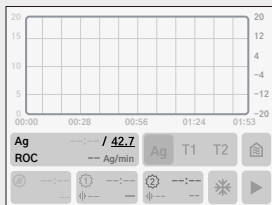


Enable Auto Start/Stop
and Color Value Alert.

Auto Start/Stop	☐
When enabled, the system will begin tracking automatically when beans are dropped, and will stop when they are dropped.	
Color Target Alerts	>

Step 3: When the roaster starts loading beans, the system will automatically begin tracking measurements about 5 seconds after detecting the beans. When the target color value is reached, a color value alert sound will be triggered, and a prompt box will appear asking whether to end the roasting or continue. If no action is taken within 5 seconds, the prompt box will disappear automatically, and tracking will continue without any manual operation. After dropping the beans, you can start roasting the next batch. Once the device detects the beans, the curve will automatically refresh, and the previous roasting record will be saved in the history.

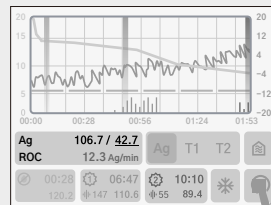
Step 4: When the last batch is about to finish roasting, manually tap the **"Stop Tracking icon"** at the bottom right. After taping, immediately drop the beans; otherwise, it may cause a deviation in the final color value.



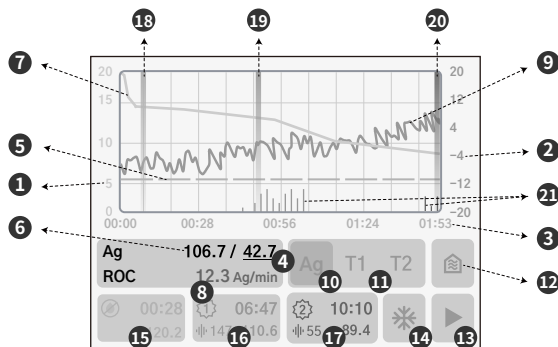
On the "Roast Track" page.



Roasting Finished,
tap "End Tracking" and
immediately drop the beans.



6. Page Display Instructions

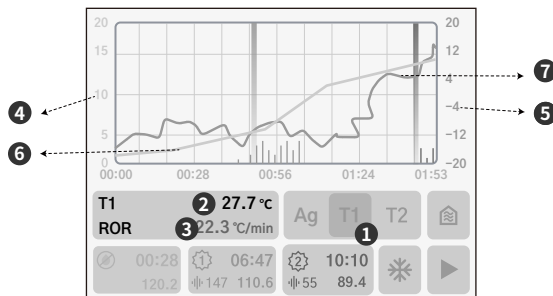


Number	Description
①	The color value indicates that the larger the value → the lighter the color, the smaller the value → the darker the color.
②	The rate of change of the color value.
③	The time variation curve will lengthen over time, compressing the chart display.
④and⑤	The set target color value, displayed as a dashed line in the chart above. (The color of the text and line correspond to each other.)

Number	Description
⑥and⑦	The real-time AGTRON color value, and its curve change in the chart above. (The color of the text and the line correspond to each other.)
⑧and⑨	The real-time color value change rate, and its curve variation in the chart above. (The color of the text and the line correspond to each other.)
⑩	The highlighted state indicates that the chart currently displayed is related to color value changes.
⑪	T1 and T2 represent the two temperature probes at the bottom of the device (sold separately); selecting them highlights the corresponding temperature change chart above. Real-time measurement of bean temperature and chamber temperature is possible. Since it uses an external probe, it can measure at any position, giving you full control over the roasting temperature.
⑫	Tap to view the current environmental temperature, humidity, air pressure, and altitude.
⑬	Start Measurement (▶) / Stop Measurement (■) / Restart (↻)
⑭	Tap to switch to the "Cooling Track" control page.
⑮and⑱	When the yellow point ⑮ is highlighted, a yellow line ⑱ will appear in the chart. If the auto-marking option is enabled in the dropdown settings, it will automatically highlight the marker; otherwise, you will need to manually highlight the marker. (The color of the text and the line correspond to each other.)
⑯and⑲	When the first crack point ⑯ is highlighted, an orange line ⑲ will appear in the chart. If the auto-marking option is enabled in the dropdown settings, it will automatically highlight the marker; otherwise, you will need to manually highlight the marker. (The color of the text and the line correspond to each other.)

Number	Description
⑰and⑳	When the second crack point ⑰ is highlighted, a red line ㉑ will appear in the chart. If the auto-marking option is enabled in the dropdown settings, it will automatically highlight the marker; otherwise, you will need to manually highlight the marker. (The color of the text and the line correspond to each other.) It will automatically highlight the marker; otherwise, you will need to manually highlight the marker. (The color of the text and the line correspond to each other.)
㉑	Represents the number of occurrences and the intensity of the first and second crack sounds.

Tap on ⑪ on page 54 to display the temperature change curve detected by the temperature probes; as shown in the image below:



Number	Description
⑪	Tap to highlight, indicating that the infrared temperature change rate and its variation curve in the chart above are currently displayed.
②and⑥	Real-time temperature display and its variation curve in the chart above. (The color of the text and the line correspond to each other.)
③and⑦	Real-time temperature change rate and its variation curve in the chart above. (The color of the text and the line correspond to each other.)
④	Represents the temperature value. The larger the value → the higher the temperature, the smaller the value → the lower the temperature.
⑤	Represents the temperature change rate.

【Cool Track】 Operating method

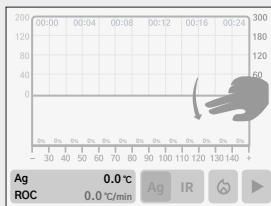
- ! Before measuring, ensure that the lens surface is free from fingerprints, dust, etc. Use a clean, soft, lint-free cloth to wipe it clean.
- ! Maintain a distance of 20–40 cm between the machine and the sample.
- ! **Scanning angle:** Vertically downward with a deviation of $\pm 10^\circ$ (-10° to 10°).
- ! **Detectable sample type:** Roasted beans in the cooling tray.
- ! The calibration method for this mode is the same as the Color Test mode. It is recommended to calibrate once a week (refer to page 21).
- ! **Required tools:** Main unit, mounting stand.

1. Measurement Process

- ! It is recommended to handhold the device and gently shake it while aiming at the coffee beans in the cooling tray for scanning.
- ! **Confirm historical results:** On the home page, swipe right ~ History ~ Cool Track.

2. Exclusive【Settings】for This Mode

- 1) On the home page, tap "Cool Track" ~ "Slide down" to expand the dedicated settings page for the current mode.



On the detection page,
"Slide down" from the top.



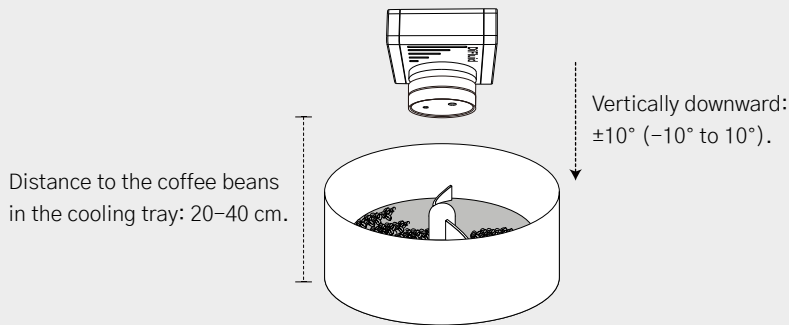
Expand the dedicated
settings page.

The screenshot shows the 'Cool Track' settings page. It has a title bar with a checkmark icon and a battery icon. Below the title bar, there are four settings sections: 'Temperature Unit ①' with a toggle for '°C' and '°F'; 'Agtron Range ②' with a right arrow; 'Color Standard ③' with a right arrow; and 'USB Light ④' with a toggle for 'Off', 'On', and 'Auto'.

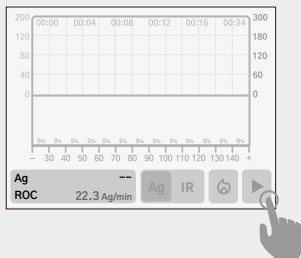
Number	Settings page item description
①	Select the temperature unit: °C or °F.
②	Set the color value distribution range and step size: 70-130, 10 Step (default) 70-130, 5 Step 30-150, 10 Step

Number	Settings page item description
③	Select the standard: SCA or COMMON.
④	USB lighting switch setting (sold separately).

Step 1: Handhold the device and aim it at the rotating roasted beans in the cooling tray. The angle should be vertically downward, and be careful not to scan other areas.



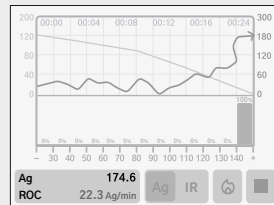
Step 2: tap the "Start Icon" in the bottom-right corner to begin the measurement.



tap the "Start Icon" in the bottom-right corner.



Start the measurement.



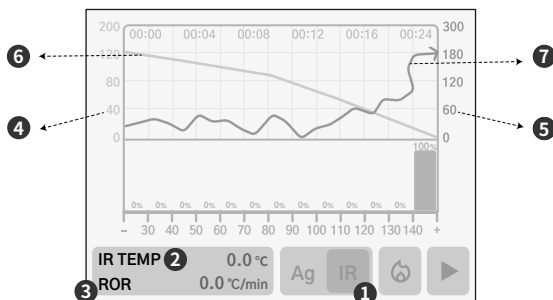
3. Page Display Instructions



Number	Description
①	Represents the color value. The larger the value → the lighter the color, the smaller the value → the darker the color.
②	The time variation curve will lengthen over time, compressing the chart display.
③	Represents the color value change rate.
④	The highlighted state indicates that the chart currently displayed is related to color value changes.
⑤	The highlighted state indicates that the chart currently displayed is related to the infrared temperature change rate.
⑥	Tap to switch to the "Roast Track" control page.
⑦	Start Measurement (▶) / Stop Measurement (■) / Restart (↺)

Number	Description
⑧and⑩	Real-time AGTRON color value, and its curve change in the chart above. (The color of the text and the line correspond to each other.)
⑨and⑪	Real-time color value change rate, and its curve change in the chart above. (The color of the text and the line correspond to each other.)
⑫	Result distribution histogram, which shows the detailed distribution ratio and trend of each color value. You can select the desired color value display range and span in the dropdown settings.
Distance reminder	When the distance deviates, a correction screen will be displayed. The measurement distance is 20–40 cm, and the scanning angle is vertically downward with a deviation of $\pm 10^\circ$ (-10° to 10°).

Tap on ⑤ page 62 to display the infrared temperature change curve; as shown below:



Number	Description
①	Tap to highlight, indicating that the chart currently displayed is related to the infrared temperature change rate, and its variation curve in the chart above.
②and⑥	Real-time infrared temperature display, and its curve variation in the chart above. (The color of the text and the line correspond to each other.)
③and⑦	Real-time infrared temperature change rate, and its curve variation in the chart above. (The color of the text and the line correspond to each other.)
④	Represents the infrared temperature value. The larger the value → the higher the temperature, the smaller the value → the lower the temperature.
⑤	Represents the infrared temperature change rate.

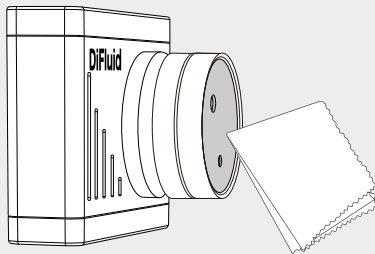
Roast Standard Specifications

AGTRON Values	COMMON	SCA
$0 \leq \text{AGTRON} \leq 30$	Espresso	Very Dark
$30 < \text{AGTRON} \leq 40$	French	Dark
$40 < \text{AGTRON} \leq 50$	Full City	Medium Dark
$50 < \text{AGTRON} \leq 60$	City	Medium
$60 < \text{AGTRON} \leq 70$	Dark	Medium Light
$70 < \text{AGTRON} \leq 80$	Medium	Light
$80 < \text{AGTRON} \leq 90$	Cinnamon	Very Light
$90 < \text{AGTRON} \leq 150$	Light	Extremely Light

Cleaning and Maintenance

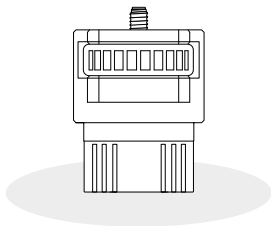
Before detection, clean the lens daily as part of regular maintenance.

Use a clean, soft, lint-free cloth to wipe the lens surface, avoiding fingerprints, dust, and grease that may affect data collection.

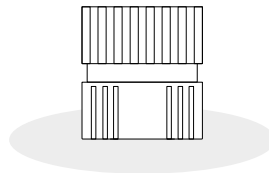


Bracket Installation

It comes with two connectors. It is recommended to use the one with screws, as it can more securely fix the device.



Screw head

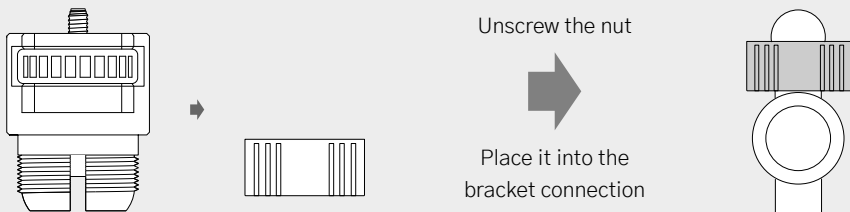


Magnetic head

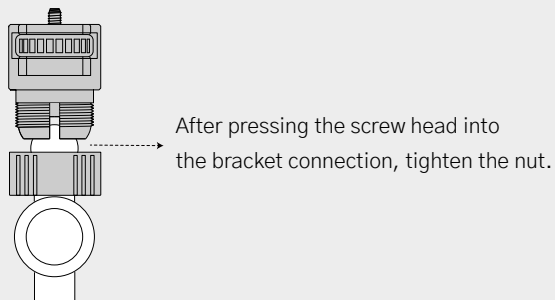
Screw Head Installation Method

Step 1: Fix the stand onto a stable edge of the table.

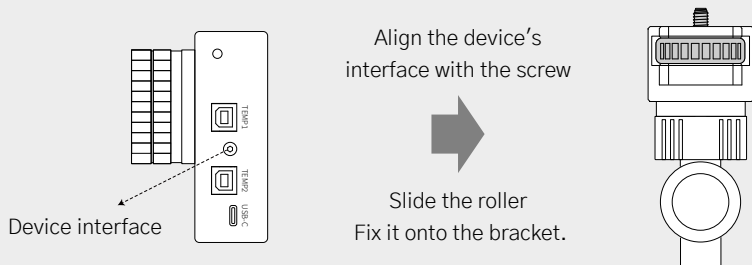
Step 2: Unscrew the nut and place it into the bracket connection.



Step 3: Press the screw head into the bracket connection and tighten the nut.



Step 4: Align the device's interface with the screw, slide the roller, and fix the device onto the bracket.



Step 5: After installation, you can freely rotate the device to adjust its orientation.

Magnetic Head Installation Method

Step 1: Fix the stand onto a stable edge of the table.

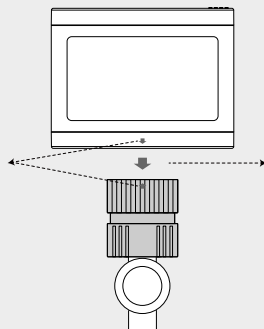
Step 2: Unscrew the nut and place it into the bracket connection.

Step 3: Press the magnetic head into the bracket connection and tighten the nut.

Step 4: Align the device's interface with the magnetic head and let it attach.

Installation is complete. (Make sure the arrows are aligned, otherwise, it may not attach properly due to the wrong angle.)

Make sure the arrows are aligned, otherwise, it may not attach properly due to the wrong angle.



During use, avoid forcefully bumping the device, as the magnetic head may fall off due to external force, potentially causing damage to the device.

Warranty Policy

Product malfunctions occurring under normal use are covered by free official repair service within one year from the date of purchase.

Exclusions from Warranty Coverage

- 1) Purchased from non-official authorized sales channels or without warranty certificate and valid invoice;
- 2) Beyond the warranty period;
- 3) Malfunctions or damages caused by misuse, unauthorized modification, disassembly, repair, or firmware flashing;
- 4) Malfunctions or damages caused by transportation, handling, or dropping after purchase;
- 5) Accidental or human-induced product damage, such as liquid ingress, incorrect voltage input, overvoltage, screen or casing scratches caused by human factors;
- 6) Malfunctions or damages caused by other force majeure events (e.g. fire, earthquake, flood).



Federal Communication Commission (FCC) Radiation Exposure Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radiofrequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna. -- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Federal Communication Commission (FCC) Radiation Exposure Statement When using the product, maintain a distance of 5mm from the body to ensure compliance with RF exposure requirements.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.



Compliance Information

CE Compliance Notice

1. Due to the used enclosure material, the product shall only be connected to a USB Interface of version 2.0 or higher. The connection to so called power USB is prohibited.

2. Do not use the device in the environment at too high or too low temperature, never expose the device under strong sunshine or too wet environment.

The suitable temperature for the product and accessories is 0°C–45°C.

3. Warning: – replacement of a battery with an incorrect type that can defeat a safeguard;

– disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;

– leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas; and

– a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

4. This device is a low-power radio transmitter and receiver. As recommended by international guidelines, the device meets applicable national SAR limits of 2.0W/kg (10g). 10g SAR: meets low-power exclusion level, SAR test is not required.

5. Operating Frequency Range

Bluetooth: 2402 MHz ~ 2480 MHz 9.48 dBm

This product can be used across EU member states.

EU Regulatory Conformance

Hereby, Shenzhen Digitizing Fluid Technology Co., Ltd. declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Product Warranty Card

保修卡 / 保証書

One year warranty

一年品质保证

一年安心品質保証

Thank you for purchasing our product. Please contact us with any questions

感谢您选购我们的产品，有任何产品问题请联系我们！

この度はお買い求め頂き、誠にありがとうございます。

本機についてご不明な点や技術的なご質問、故障と思われる時のご相談について
は下記のお問い合わせ先をご利用ください。



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保証内容を確認するには QR コードをスキャンしてください。

User Information/ 用户信息 / お客様情報

User Name/ 用户名 / お名前	
User Address/ 用户住址 / ご住所	
Phone Number/ 联系方式 / 電話番号	

Product Information/ 产品信息 / 商品情報

Product Name/ 产品名 / ブランド	
Serial Number/ 序列号 / 品番	
Sales Date/ 购买日期 / お買い上げ日	

Sales Unit Information/ 销售单位信息 / 販売店情報

Name Of Sales Unit/ 销售单位 / 販売店名	
Sales Unit Address/ 销售单位地址 / 販売店住所	

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