LED Bead Studio & LED Smart Bead Board User Manual

1. Quick Start

1.1 Install the App

Scan the **matching QR code on the box** to install **LED Bead Studio**:

Phone	How to install
iPhone / iPad	Scan the **App Store QR** on the box, then get / install in App Store; or search **LED Bead Studio** in App Store
Android with Google Play	Scan the **Google Play QR** on the box and install; or search **LED Bead Studio** in Google Play
Other Android phones	Use a **browser** to scan the **local APK QR** on the box, download the `.apk`, then install; if prompted, allow installs from unknown sources in system settings

On first launch, allow Photos, Camera, Bluetooth, Location, and other required permissions. See Chapter 4 for details.

1.2 Start using

1. Power on the LED Smart Bead Board → enable phone Bluetooth (and Location on Android) → connect in the App (Bluetooth name starts with **BeadPad**)
2. Turn on power on Home (or confirm the board screen is on)
3. Create artwork: Free Create / Import Pattern / Import Image / Cloud Assets
4. **Save** to Local Gallery
5. Open a work to enter **Bead Mode** → tap a color code to highlight → place beads on the board; **single-tap** the bottom-right board button to rotate if needed
6. (Optional) Track stock in **Warehouse**; **double-tap** the board button for clock mode; **long-press** to power off

2. Product Overview

The **LED Smart Bead Board** is a programmable bead board: the grid lights up so you can place physical beads by color code.
LED Bead Studio is the companion phone App for:

- Creating, importing, or downloading bead patterns on your phone
- Syncing patterns to the LED Smart Bead Board over Bluetooth
- Highlighting cells by color code in **Bead Mode** while you build
- Managing bead stock (Warehouse), clock dials, and firmware updates

Connecting digital patterns to physical beads is the core experience.

3. Package & Hardware

3.1 Typical box contents (subject to packaging)

- LED Smart Bead Board
- Power adapter / cable
- This manual (print or electronic)
- App download QR codes on the box (App Store / Google Play / local APK, as printed)

3.2 Models & grid size

The physical product is called **LED Smart Bead Board**. On the phone, the **Bluetooth name** starts with **BeadPad**. Common mapping:

Bluetooth name example	Grid size
BeadPad52	52 × 52
BeadPad78	78 × 78
BeadPad104	104 × 104

When creating or importing, choose a size that matches your board; if the pattern is larger than the board, use region selection in Bead Mode.

3.3 Color-code system

The App includes common bead codes (such as A4, B3, E6, H7) and several color packs (e.g. ALL 291 colors, and A1 / B2 / C3… packs).
Use the code standard of the beads you own, and keep App color packs aligned with that set.

3.4 On-board button location

There is **1 physical button** at the **bottom-right** of the LED Smart Bead Board. You can power off and switch modes without opening the App. See Chapter 6.

4. Install & First Setup

4.1 Install "LED Bead Studio"

Scan the **QR code that matches your phone** on the box.
Channels are labeled—scan the correct one.

iPhone / iPad

1. Scan the **Apple / App Store QR** with Camera or another scanner.
2. In App Store, tap Get / Install **LED Bead Studio**.
3. Or open App Store and search **LED Bead Studio**.
4. Open the App after install; sign in with Apple ID if prompted.

Android with Google Play

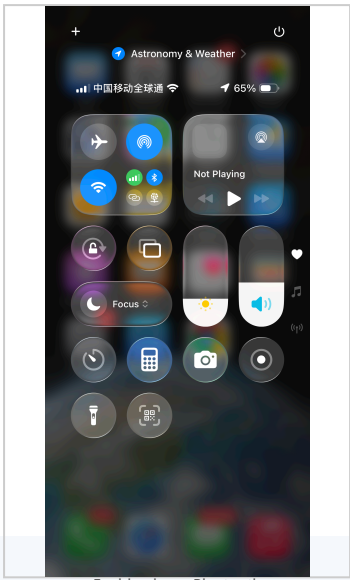
1. Scan the **Google Play QR** on the box.
2. Open the store page and install **LED Bead Studio**.
3. Or open Google Play and search **LED Bead Studio**.
4. Open the App from the home screen or app list.

Other Android phones (local APK)

If Google Play is unavailable, use the **local / APK QR** on the box:

1. Scan with a **browser** (or open the link in a browser after scanning).
2. Download the **LED Bead Studio** `.apk`.
3. Install it. If blocked, allow unknown sources for that browser/file manager, then retry.
4. Open the App after install.

> Tip: Download only via the official box QR or brand channels. Avoid unknown APKs.



Enable phone Bluetooth

First launch & permissions

Allow required permissions when prompted, for example:

- **Photos / Gallery**: import patterns and images
- **Camera**: capture imports
- **Bluetooth**: connect the LED Smart Bead Board
- **Location** (some Android devices): required by the system to scan nearby Bluetooth devices—not for tracking you

If a permission is denied, related features may not work. Re-enable later in system settings.

4.2 Before you start

1. **Power the LED Smart Bead Board** so the display can light (or wake from standby).
2. **Turn on phone Bluetooth**.
3. On Android, Bluetooth scanning usually also needs:
   - App **Bluetooth** and **Location** permissions
   - Phone **Location services** on (system requirement, not for tracking)

> Tip: If connection fails, check Bluetooth and Location first, then rescan in the App.

4.3 Language

Go to **Settings** → **Language** and choose: Follow system / English / Simplified Chinese.

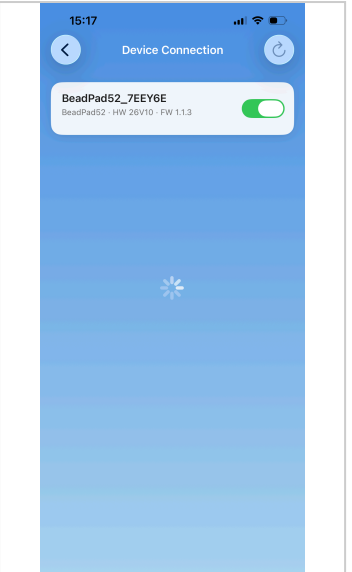
5. Connect & Power

5.1 Connect the LED Smart Bead Board

1. Open the App and go to **Home** in the bottom tab bar.
2. Tap the **Connect** icon at the top right to open **Device Connection**.
3. The App scans nearby devices; you can also tap **Refresh**.
4. Find a device whose name starts with **BeadPad** (e.g. `BeadPad52_`·····) and turn on the switch to connect.
5. After connecting, return to Home—the connect button shows connected status; hardware/firmware versions may also appear (e.g. HW 26V10, FW 1.1.3).

Connection tips:

- Keep the phone near the board
- Connect only one device at a time
- If the list is empty: confirm power, Bluetooth, and Location, then refresh



Device connection

5.2 Display power (App)

1. Make sure the device is connected.
2. Tap **Power** at the top left of Home.
3. Toggle between display on / off.

If not connected, tapping Power asks you to connect first.
You can also **long-press** the board's bottom-right button to power off (next chapter) without opening the App.

6. On-Board Button

The LED Smart Bead Board has **1 button** at the **bottom-right** for use without the phone.

Action	Function
Long-press	Power off
Double-tap	Switch between **Bead display** and **Clock display**
Single-tap (Bead display)	Rotate the pattern orientation
Single-tap (Clock display)	Switch clock background

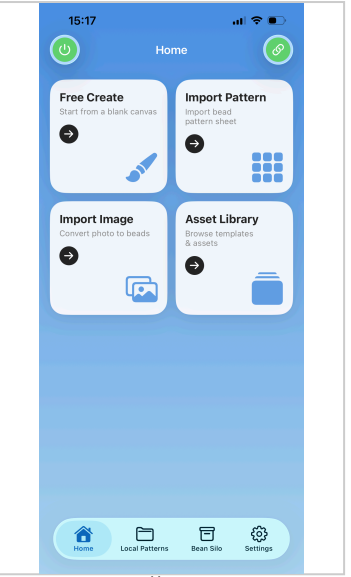
Tips:

- Double-tap quickly twice so it is not read as two single taps.
- After long-press power-off, power/wake the board again as usual (or turn the display on from App Home after reconnecting).
- Single-tap rotate in Bead display is similar to **Rotate** in App Bead Mode.
- Single-tap in Clock display cycles saved clock backgrounds; finer background/text colors are in App **Board Clock**.

7. App Overview

Bottom tabs:

Tab	Role
Home	Connect, power; Free Create / Import Pattern / Import Image / Assets
Local Gallery	Saved works; enter Bead Mode
Warehouse	Bead stock by color code
Settings	Language, clock, policies, version & firmware



Home

7.1 Home tiles

- Top-left **Power**: board display on/off
- Top-right **Connect**: device connection
- **Free Create** — start from a blank canvas
- **Import Pattern** — recognize coded bead charts
- **Import Image** — convert a photo into a bead pattern
- **Assets** — browse and download cloud templates (page title: Cloud Assets)

8. Free Create

Design from scratch or continue editing an existing work.

8.1 Choose parameters

1. Home → **Free Create**.
2. On **Parameter Selection**, choose canvas size:
   32×32 / 52×52 / 78×78 / 104×104
   (match your board; default is often 52×52)
3. Tap **Start Creating**.

8.2 Create tools

On the **Create** page, the grid is in the center; tools are below.

Brush color

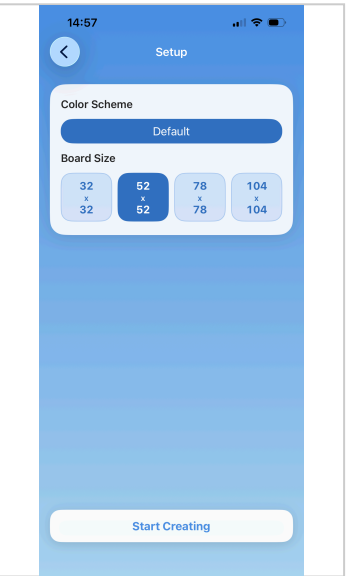
- Tap a swatch to switch color (e.g. A4, B3)
- Tap **Add** to pick more codes from a color pack
- Search by code (e.g. `A4`)

Edit tools

Tool	Description
Brush	Color cells one by one
Eraser	Clear cells
Fill	Fill a same-color region
Eyedropper	Pick a color from the canvas
Undo / Redo	Step back or forward
Clear	Clear the whole canvas

View tools

- **Code**: show color codes on cells



Free Create parameters

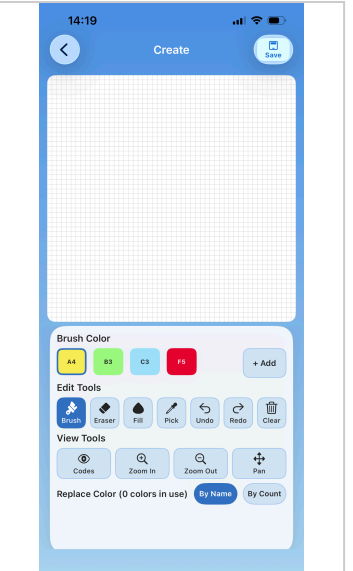
- **Zoom in / out / Move**: edit large patterns more easily

Color replace

- See colors used and counts
- Sort by name or quantity
- Highlight, eyedropper, replace a color, or remove a color

8.3 Save

1. Tap **Save** at the top right.
2. Enter a name and confirm.
3. The work appears in **Local Gallery**.
   If connected, it can also preview on the LED Smart Bead Board.



Free Create editor

9. Import Pattern (Color-Code Recognition)

For existing bead charts with color codes in each cell (photo or screenshot). The App combines **OCR** and **color recognition**.

9.1 Recommended flow

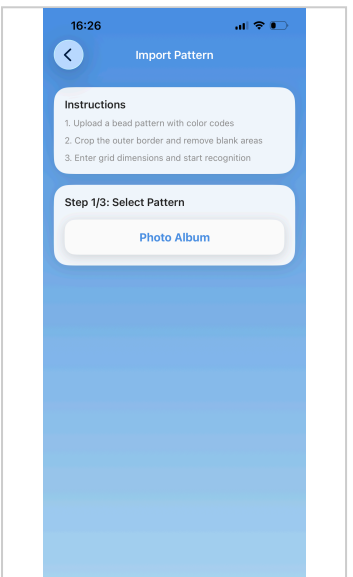
Step 1/3: Select chart

1. Home → **Import Pattern**.
2. After the guide, tap **Phone Album** and pick a clear coded chart.

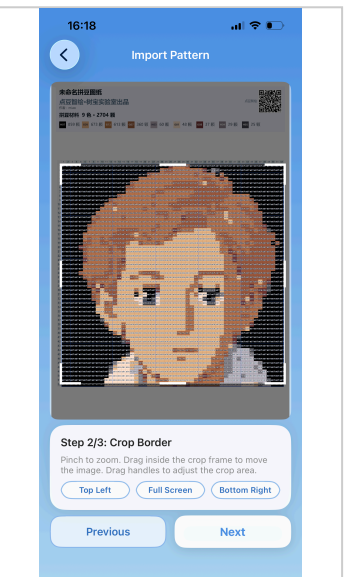
Step 2/3: Crop the frame (important)
Crop so the frame **snaps to the outer edge of the code grid**, removing titles, color keys, QR codes, and empty margins.

Suggested order:

1. In **full overview**, roughly frame the whole grid (pinch zoom; drag image inside the crop; drag handles for coarse adjust).
2. **Must** tap **Top-left** and **Bottom-right** to open corner zoom views, then drag the white corner handles to **align precisely**



Import pattern step 1



Import pattern step 2 overview

with the outer grid lines.
3. After both corners are flush, tap **Next**.

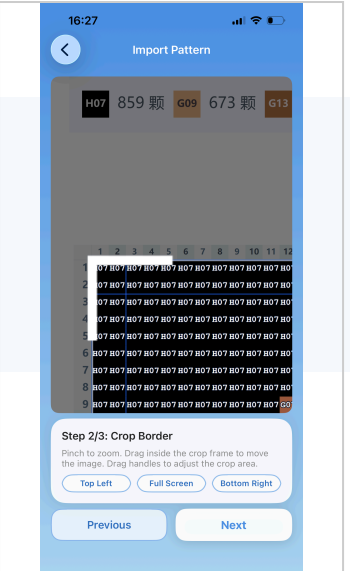
> **Important:** Full-screen coarse crop alone is often inaccurate. Always refine with **Top-left** and **Bottom-right** so the border sits on the outermost grid line—otherwise recognition may shift cells or colors.

Step 3/3: Set grid & recognize

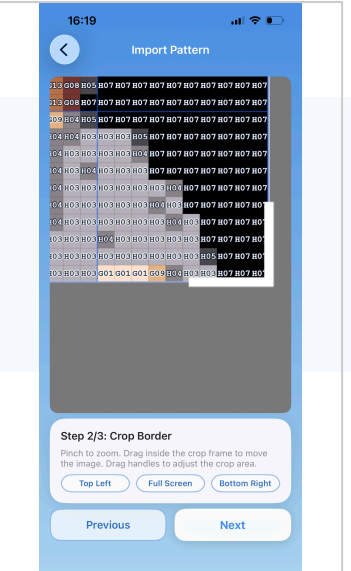
1. Enter the true **horizontal** and **vertical** cell counts (must match the chart, e.g. 52 × 52).
2. Tap **Start Recognition** and wait.
3. Review the preview and color usage on the result page.
4. Tap **Save** to Local Gallery, or **Edit** to fine-tune in Create.

9.2 Recognition tips

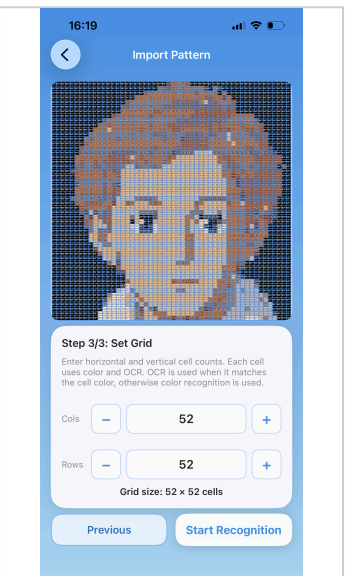
- Keep the chart square, lighting even; avoid glare and shadows
- Color-code text must be readable
- **Use Top-left / Bottom-right in step 2**—do not rely on overview alone
- Wrong H/V counts cause misalignment; fix counts and retry if needed
- Crop to the **code grid only**; remove headers, footers, keys, QR codes



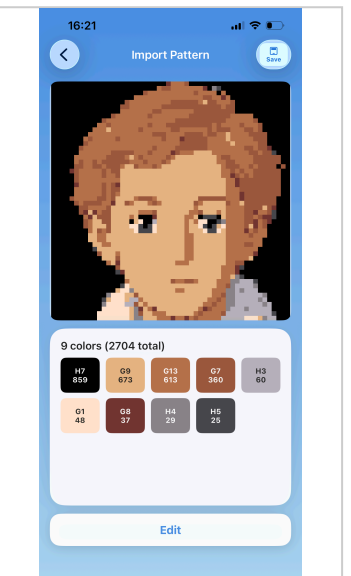
Import pattern step 2 top-left



Import pattern step 2 bottom-right



Import pattern step 3



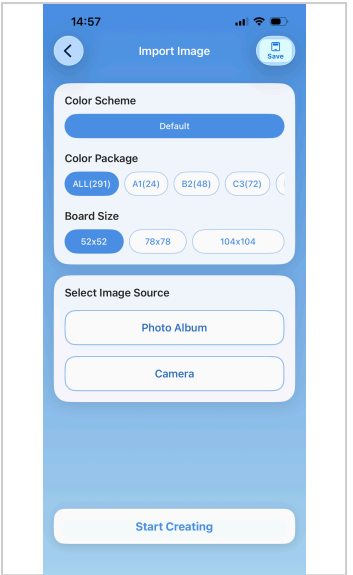
Import pattern result

10. Import Image (Photo to Beads)

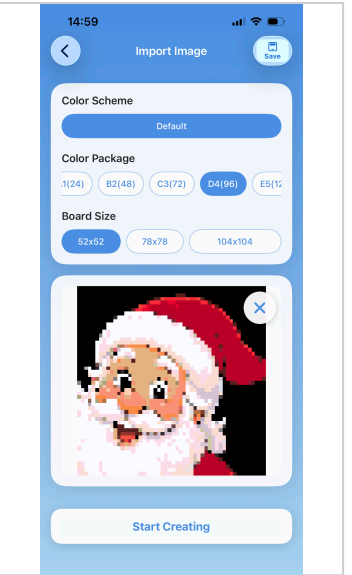
Turn photos or illustrations into bead-style patterns.

10.1 Parameters

1. Home → **Import Image**.
2. Choose **Color scheme** (often Default).
3. Choose a **Color pack** matching the beads you own, e.g.:
   - ALL(291)
   - A1(24), B2(48), C3(72) …
4. Choose **Board size**: 52×52 / 78×78 / 104×104.
5. Pick from **Phone Album** or **Camera**.
6. Crop as prompted, then review the pixel preview.
7. Tap **Save**, or **Start Creating** to edit further.



Import image setup



Import image preview

10.2 After saving

You can:

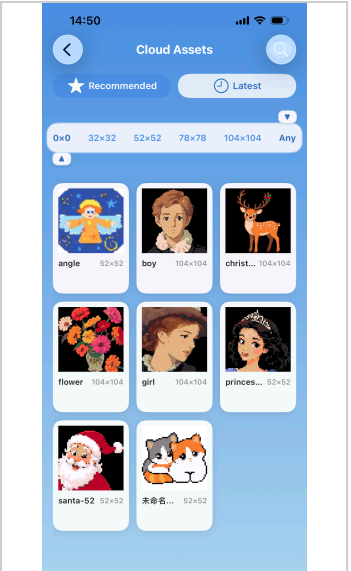
- **Enter Bead Mode**: build on the board right away
- **Exit**: reopen later from Local Gallery

Closer color packs make patterns more buildable; match board size to your LED Smart Bead Board.

11. Cloud Assets

1. Home → **Assets** to open **Cloud Assets**.
2. Switch **Recommended / Latest**.
3. Filter by size (e.g. 32 / 52 / 78 / 104, or any).
4. Search by name, author, or tags.
5. Download a template, then:
   - **Save** to Local Gallery
   - **Enter Bead Mode** to start building

Cloud content needs a network; if loading fails, check connectivity and retry.



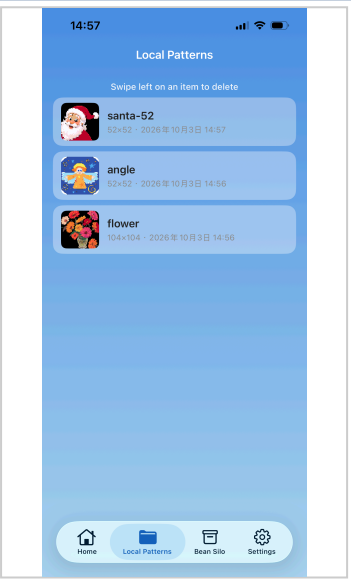
Cloud Assets

12. Local Gallery

Local Gallery lists works you saved, imported, or downloaded.

- Tap a work → **Bead Mode**
- **Swipe left** to delete (confirm first)
- You may **upload to cloud** if configured in Settings (most users stay local)

If empty: create or import and save a work first.



Local Gallery

13. Bead Mode (Board Highlight Assist)

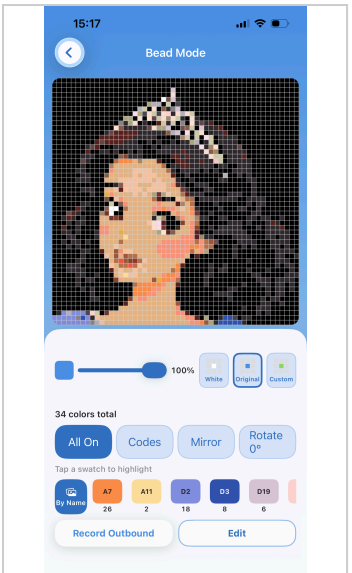
Daily building mode: the App lights cells by color code on the LED Smart Bead Board while you place beads.

13.1 How to enter

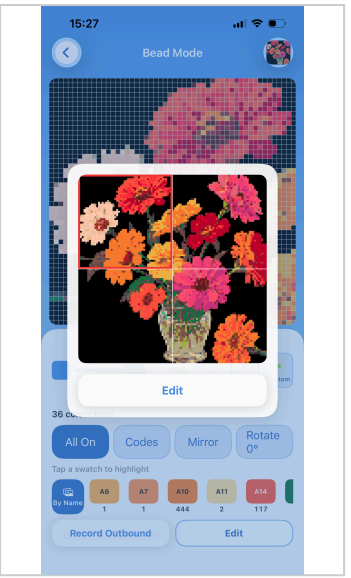
- Tap a work in Local Gallery
- Choose "Enter Bead Mode" after import/save
- Choose "Enter Bead Mode" from a cloud asset detail

13.2 Suggested flow

1. Connect the LED Smart Bead Board and turn the display on.
2. Enter Bead Mode so the pattern syncs to the board.
3. **Tap a color code** in the list—the board highlights those cells.
4. Finish one color, then the next.
5. To rotate: tap **Rotate** in the App, or **single-tap** the board's bottom-right button.



Bead Mode



Select bead region

13.3 Common controls

Control	Description
Brightness	Board brightness (~10%–100%)
Highlight color	White / original / custom highlight
Custom color	Pick a highlight color; eye-care presets available
Full light	Show the full pattern; cancel single-color highlight
Show code	Show color codes on the phone preview
Mirror	Horizontal mirror
Rotate	90° each time (0° / 90° / 180° / 270°); or single-tap the board button
By name / By qty	Sort the color list
Select bead region	Button at the **top-right** of Bead Mode; pick a region when the pattern is larger than the board
Record stock-out	Deduct Warehouse stock by this pattern's usage
Edit	Return to Create to modify the pattern

13.4 Large-pattern regions

When the work is larger than the board (e.g. 104 pattern on a 52 board):

1. Tap **Select bead region** at the **top-right** of Bead Mode
2. Tap the region to build (selected area outlined in red)
3. Tap **Done**—the board shows only that region

Finish one region, then the next.

13.5 Warehouse link

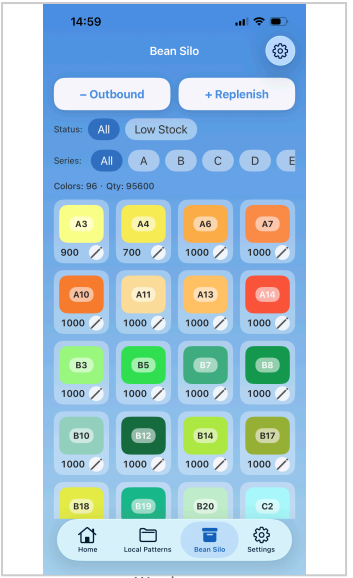
After finishing a work, tap **Record stock-out** to deduct by color code.
If stock is short, the App shows what's missing so you can restock first.

14. Warehouse (Bead Inventory)

Warehouse tracks how many beads you have per color code.

14.1 Main screen

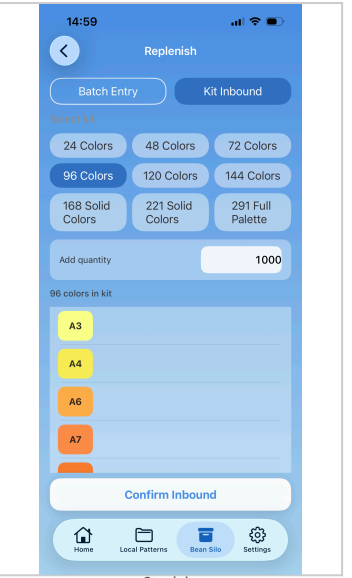
- Top: **+ Stock in** or **- Manual stock-out**
- Filter by **Status** (All / Low stock)
- Filter by **Series** (All, A, B, C…)
- Totals for code types and bead count
- Tap a code to **edit stock**



Warehouse

14.2 Stock in

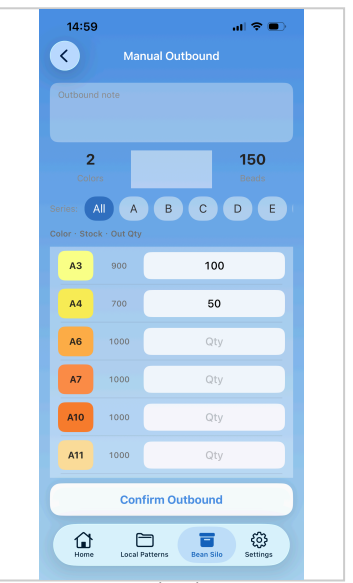
1. Open **Stock in**.
2. Choose:
   - **Batch record**: enter qty per code (+500 / +1000 shortcuts)
   - **Pack stock-in**: add a whole pack
3. Optional **note**.
4. Confirm code count and bead count, then **Confirm stock-in**.



Stock in

14.3 Manual stock-out

1. Open **Manual stock-out**.
2. Enter quantities and notes.
3. Tap **Confirm stock-out**.
   Shortages are flagged by color code.



Manual stock-out

14.4 Warehouse settings

In top-right settings you can:

- View **operation history**
- Set **low-stock threshold**
- **Reset Warehouse** (clears stock and history—irreversible)

15. Board Clock

The LED Smart Bead Board can also work as a desk clock.
Path: **Settings → Board Clock**
Without the App: **double-tap** the bottom-right board button for **Clock display**; double-tap again to return to **Bead display**.

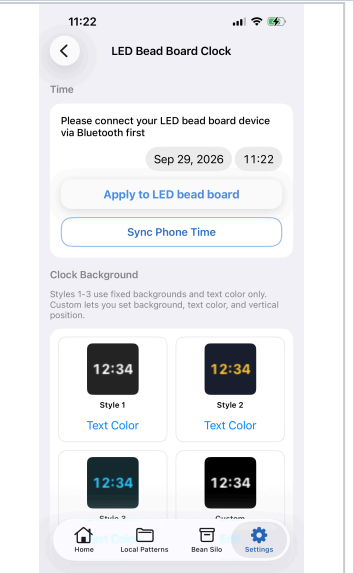
15.1 Time

1. Connect the device over Bluetooth.
2. Adjust time, then **Apply to board**.
3. Or tap **Sync phone time** to write the phone's current time.

15.2 Clock background

- **Style 1 / 2 / 3**: fixed backgrounds; change **text color**
- **Custom**: tap **Edit** to set:
  - Background image (pick & crop)
  - Text color
  - Vertical text position (upper / center / lower)
  - Then **Apply to board**

In Clock display, **single-tap** the board button to cycle saved backgrounds.
If not connected, the App asks you to connect first; on-board mode/background switching does not need the phone.



Board Clock

16. Firmware Update & Settings

16.1 Firmware update

Path: **Settings → Firmware Update**

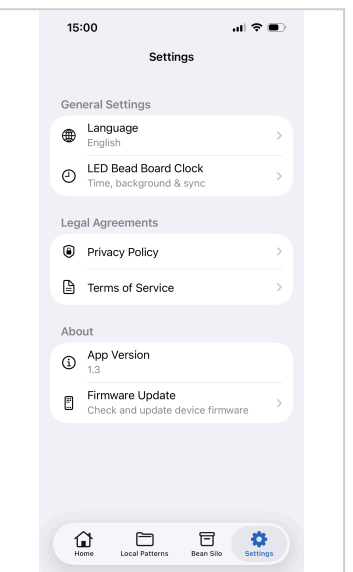
1. Connect the LED Smart Bead Board.
2. Check current and latest firmware.
3. If an update is available, tap **Start update** and keep the connection until sending finishes.
4. The device restarts to complete the update.

Notes:

- Do not cut power, walk away, or force-quit the App during update
- Some models/HW versions may not support updates; the page will say so

16.2 Other settings

- **Language**
- **Privacy Policy / User Agreement**
- **App version** (read-only)
- **Board Clock**, **Firmware Update** (see above)



Settings

17. FAQ

Q1: Device not found?
Check: board powered; phone Bluetooth on; Android Location on with Location/Bluetooth permissions; device not held by another phone. Then refresh on Device Connection.

Q2: Connected but board dark / pattern not updating?
Confirm Home power is display-on; raise brightness; re-enter Bead Mode or resend the pattern. After long-press power-off, power/wake again then reconnect.

Q3: Import Pattern inaccurate?
Check crop is grid-only; H/V counts correct; photo not blurry or reflective. Fix and recognize again.

Q4: Import Image colors don't match my beads?
Choose a closer **color pack**, then fine-tune with Color Replace in Create.

Q5: Large pattern on a smaller board?
At the **top-right** of Bead Mode, tap **Select bead region** and build region by region.

Q6: Warehouse counts wrong?
Edit stock on a color item, or correct via stock-in/out; after building, use **Record stock-out**.

Q7: Clock time wrong?
Connect, then tap **Sync phone time** in Board Clock.

Q8: Switch to clock / power off without the App?
Use the board **bottom-right button**: **double-tap** for bead/clock display; **long-press** to power off. In Bead display **single-tap** rotates; in Clock display **single-tap** changes background. See Chapter 6.

18. Safety & Care

1. Use the supplied or rated power supply; do not modify it.
2. Keep liquids out of the board; power off and wipe with a dry soft cloth.
3. For long idle periods, turn the display off or unplug; or **long-press** the board button to power off.
4. Do not press hard on LED areas while beading.
5. Children should use under adult supervision.
6. Keep power stable during firmware updates and Bluetooth transfers.

Scan to download the App

Scan the QR code on the right to open the download page for LED Bead Studio.

https://innovdisplay.cn/ledbeadstudio_home/