YEHUDA AI USER MANUAL

Welcome

Congratulations on purchasing a Yehuda AI Lab-Grown Diamond Detector.

Please read the full manual carefully and educate yourself.
Failing to read the full manual may result in costly mistakes.

This manual will be constantly updated, and it is highly recommended to revisit it regularly. For your convenience, **you can see when each subject was last updated,** so you do not need to go over the entire manual — only the newly updated sections.

Clicking on any of the tabs will take you directly to that section.

As the world leader in lab-grown diamond detection, Yehuda provides the most reliable protection for jewelry professionals worldwide. Our mission is to deliver the latest technological advancements so you can maximize the benefits of our technology.

Why Do We Keep Releasing New Models?

Because we're in a race!

Some (though not all) growers are relentlessly focused on one goal: producing a lab-grown diamond that can fool the detectors and pass as natural.

At **Yehuda**, we stay ahead of the curve by closely monitoring every new generation of lab-grown diamonds — especially those that are designed specifically to bypass detection. As a result, we're constantly innovating and releasing new detection technologies to meet the challenge.

Even though our **previous models** (which were independently verified to detect 100% of lab-grown diamonds available at the time) were highly effective, **some of the newest LGDs are too**

advanced for those systems. That means that Sherlock 1,2 and 3 must be replaced and even **Sherlock 4.0** and **Dr. Watson** may eventually need to be replaced.

To stay ahead, we've built our latest technology **from scratch** — with an internal powerful processor, advanced optics, and software powered by AI.

- We developed a **custom camera** (because phone cameras no longer meet the precision required).
- We **fine-tuned our software.**
- We invented a **new patented technology** to positively identify **Cubic Zirconia (CZ)**.
- We also have a deep understanding of how to reliably detect **Moissanites**.

In our testing — which includes **tens of thousands of stones** — the new AI-based system **has not failed to detect a single lab-grown diamond or simulant**. However, like any advanced system, we do still see a **small percentage of false positives** (natural diamonds incorrectly flagged as lab-grown), which we are actively working to minimize.

To truly train and perfect this AI model, we plan to test it on **over 100,000 stones of each type**, both loose and mounted.

Our Commitment

This constant evolution isn't optional — it's essential. Yehuda is committed to protecting the integrity of natural diamonds and providing our customers with the most advanced, reliable detection technology available.

We're not just reacting — **we're leading**

IMPORTANT NOTICE

It is **not possible** for us to test **every lab-grown diamond** in existence. Some stones may produce **unique or unexpected results**.

If you encounter a result that **does not align with what you see or expect**, please **contact us immediately and share the details**.

Your feedback is **critical** — it helps us improve our system and further train our AI models to handle even the rarest cases.

Together, we can continue to strengthen the accuracy and reliability of our technology.

- ## <u>Important Information</u>

- Terms of Use and Privacy Policy are available on our website and within the Yehuda App.
- Yehuda detectors are designed to detect white diamonds in the D–K color range. Diamonds with very low clarity (I2 and below) may sometimes produce unreliable results.
- Do not test fancy-colored diamonds.
- Do not test colored gemstones.
- Works with loose or mounted stones, parcels, and melee (any size).
- Loose diamonds may be tested in thin plastic bags, though this is not recommended.
- Not compatible with thick plastic or glass coverings.

New Features

1. Positive CZ Detection

- **Patent-Pending Technology:** Induces a distinct pink fluorescence in Cubic Zirconia (CZ) and certain simulants (e.g., synthetic white sapphire).
- **High Accuracy:** Internal testing demonstrates over **99% accuracy**.
- **Versatile Use:** Works with both loose and mounted stones, down to **0.01 ct**.
- **Flexible Operation:** Visual detection works without AI, though AI support is available.

2. AI-Based Stone Classification (Advisory Only)

- Assigns a color label to each stone type. (Natural Diamond, HPHT, CVD, CZ, Moissanite)
- Current status: <mark>Advisory mode</mark> — not for standalone diagnostics yet.
- Accuracy in loose stones: >99% (internal validation), but manual interpretation remains primary.
- Jewelry- not yet functional. ………
- AI reliability will be certified once target training data (~100,000 labeled samples per stone type loose and mounted) is reached.

Included Accessories

Watson AI

- 1 × Loose stone tray (1.5" × 2.5" / 4 × 6.5 cm)
- 1 × Loose stone tray with dividers (1.5" × 2.5" / 4 × 6.5 cm)
- 1 × Slotted ring holder (up to 8 rings)
- 1 × Smartphone
- 1 × Ethernet to USB-C adapter
- 1 × Short USB-C cable
- 1 × Long USB-C cable

Sherlock AI

- 2 × Loose stone trays (1.5" × 2.5" / 4 × 6.5 cm and 4" × 5" / 10 × 13 cm)
- 2 × Loose stone trays with dividers (1.5" × 2.5" / 4 × 6.5 cm and 4" × 5" / 10 × 13 cm)
- 2 × Magnetic finger ring holders
- 1 × Smartphone
- 1 × Slotted ring holder tray (up to 27 rings)
- 1 × Worldwide power supply (110–240V)
- 1 × Ethernet to USB-C adapter
- 1 × Short USB-C cable
- 1 × Long USB-C cable

Power & Charging

Power On/Off

- Press & hold the rear ON/OFF button for 3 seconds.
- Front LED indicates power status.
- Watson AI powers off automatically after 5 minutes of inactivity when not connected to the charger.
- **The phone is not charged by the detector** — use your own charger.
- To shut off, press and hold the power button for 3 seconds. The detector will power down gradually.

Charging (Watson AI)

- Charge overnight using any phone charger via the USB port on the back.
- Can be used while charging.

Subscription Fee

A monthly subscription fee of **$12.50** is mandatory starting **January 1, 2026**
(**$10 per month until that date**). The system cannot be used without an active subscription.

What is the subscription used for?
The monthly fee is allocated in three ways:

1. Maintaining and continuously updating the app
2. Ongoing development of the AI model
3. Storage of **1,000 test results** in your personal Yehuda cloud space

The fee is **per account** and covers:

- Up to **10 different detectors**, and
- **Any number of users** under that account

Even if your account uses 10 detectors and 100 different users, the fee remains **$12.50** per month.

If you need more storage, you can purchase it directly through the app.
If you prefer to pay quarterly or annually, you can also set this up in the app.

The subscription fee will **not increase for at least 3 years**.

Warranty

- 1-year warranty under normal use.
- Opening or tampering with the unit voids the warranty.
- Excludes damage from water, impact, misuse, or neglect.
- The smartphone/tablet is not covered.
- Purchasing an extended warranty available within 1 month of registration via the Yehuda App.

Setting Up the Yehuda App

After receiving your new detector, follow these steps:

1. Set up your phone and create a Google account.
2. You may use your own account, but we recommend **creating a dedicated account** for this phone. This account is required to download the App and receive software updates. (**No credit card is needed for Google**)
3. Open Google Play and search for **"Yehuda Detect"** or **"Sherlock Holmes Detect"**.
4. Download and install the Yehuda App.
5. Follow the on-screen instructions to:
   - Register your account.
   - Add payment information. (Credit Card)
   - Add users.
   - Set the detector ON (It takes a few seconds to warm up) and connect your phone using the supplied Ethernet connector and the short or long USB cable.
   - Wait for the detector to connect with the phone and press "Continue"
   - Begin using your Yehuda detector.

User Types and Permissions

1. Admin

- Creates and manages the account.
- Manages payments and payment information (exclusive to Admins).
- Can invite Admins, Managers, and Users.
- Has full access to all app functions, including cloud settings.

2. Manager

- Can invite Managers or Users.
- Can view business data but cannot view payment information.

3. User

- Can run tests, view saved tests, and export results.

Note: All user types can perform tests, view saved results, and export data.

Running a Test

⚠️ **Important:** Always clean loose diamonds and jewelry before testing. Dirt, dust, or fingerprints can **alter or obscure the test results**.

Steps:

1. Connect the **Ethernet adapter** to the detector.
2. Connect the **USB-C cable** between the adapter and your phone.
3. Power on the detector (press and hold the **ON/OFF button** for 3 seconds).
4. Open the **Yehuda App**.
5. Wait for the connection message, then **close it**.
6. **Sherlock AI users only** → When using the short USB cable, tap the **Rotate Screen** icon at the top of the screen.
7. Tap the **Camera** icon.
8. Place stones, then **aim, zoom, and focus** on them.
9. Tap **Run Test**.
10. To view the AI result, slide the **AI Result** toggle ON.
    - Note: AI can also be enabled later from the **Gallery** after the test is saved.

<mark>IMPORTANT NOTE: The AI is fully cloud-based and cannot work without an internet connection. A stable connection is required to obtain AI results.</mark>

Saving a Test

- Tap **Continue** twice.
- Fill in the desired fields.
- Tap **Save**.

Starting a New Test

- Tap the **Try Again** (🔄) icon and confirm, **or**
- Tap the **Trash** (🗑) icon to delete the current test before starting a new one.

Access Saved Tests

- On your phone (**Gallery**)
- Online at **cloud.yehuda.com** with your username and password

Yehuda Back Office Instructions - your cloud

The Yehuda Back Office is user-friendly and intuitive.

1. **Access the Back Office from your computer or phone:**
   Go to cloud.yehuda.com.
2. **Login:**
   Enter your username and password to log in.
3. **Navigation:**
   Use the tabs on the left-hand side to access the various features and tools.
4. **Gallery Features:**
   - View all your tests.
   - Change test names.
   - Filter by date, name, user, or box.
   - Sort tests by different criteria.
5. **Managing Tests:**
   - Delete individual tests or multiple tests in bulk.
   - Download any number of tests directly to your computer.

6. Viewing AI Probability for Individual Stones
AI confidence levels for individual stones can only be viewed only here. In the library, after selecting a test, you can enable the AI model. Once enabled, tap on any of the result images to enlarge it. Hover your mouse over any stone to see the AI model's confidence percentage. A confidence value closer to 1 indicates a higher level of accuracy.

Training Videos
- **Video 1** – Learn how to set up your new **Sherlock AI** and **Watson AI** detectors.
- **Videos 2–12** – These videos are based on a previous model. They do **not** demonstrate **CZ Detection** or **AI Classification**, but they will help you understand how to operate the detector and interpret the results. The detection rules are the same for both the previous and current models.
- **Videos 13–14** – Learn how to identify **CZ (Cubic Zirconia)** and how to see the **AI results**.

1. **Set up your new Sherlock and Watson AI detectors**

READING THE RESULT – Basic Guidelines

Test result Images

When testing is complete, six images will be displayed:

1. **RESULT** – Default test image.
2. **LUV** – Long-wave UV fluorescence.
3. **COLORED** – Fluorescence when illuminated by our proprietary lamp.
4. **GLOWING** – Phosphorescence (glow after the light is shut off).
5. **ORIGINAL** – Picture of the stones under white light.
6. **SIMULANTS** – Special pink fluorescence of CZ or other simulants.

IMPORTANT

You should not determine results from the **RESULT** picture alone.
You must also check the **LUV**, **GLOWING**, and **SIMULANTS** pictures.
Failure to check all will lead to incorrect identification.

Basic Rules

These are the **basic rules** to give you a general understanding. You **MUST** review all detailed rules before making a final determination.

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1. Natural Diamond

- If the stone shows **blue and only blue** in the **RESULT** picture, it is considered a **Natural Diamond**.

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2. Lab-Grown Diamond

- If the stone **glows** in the **GLOWING** picture, it is a **Lab-Grown Diamond**.
    - This glow (**phosphorescence**) will appear as **red markings** in the **RESULT** picture.

Summary:

- If the stone shows **any non-blue colors** or **any red markings** in the RESULT image, it is considered **Lab-Grown**.

GOLDEN RULE

If a stone has **blue fluorescence** under the **LONG UV** picture → it is a **Natural Diamond**.
✅ You do not need to check any other screens.

Now let's go over all the pictures in details.

Result Picture

- **Displays Combined Results:** Shows both **colored** and **glowing** outcomes.

Interpretation

- **100% Pure Blue Fluorescence (any shade of blue):** Natural Diamond
- **Any Non-Blue Fluorescence or Red Marking:** Lab-Grown Diamond
- **Red Marking even over Blue Fluorescence:** Lab-Grown Diamond

Additional Notes

- **Phosphorescent Stones:** Marked in **bright red**. (Stones that exhibit glowing are lab-grown diamonds.)
- The red overlay intensity may vary; always confirm in the **GLOWING** picture.
- **Filter Adjustment:** Use the **red filter sensitivity buttons** to adjust overlay visibility.
- **Best Practice:** Always review results across all sensitivity levels, starting from the ==lowest number (most sensitive),== to avoid missing faint phosphorescence.

LUV (Long UV) Picture

- **Most Reliable Test Result**

Interpretation

- **Only Blue Fluorescence:** 100% Natural Diamond → *(all other test results can be ignored)*
- **No Reaction or Any Other Color Fluorescence:** Disregard the LUV result in the final judgment

Glowing Picture

- **Displays phosphorescence after the light source is shut off.**

Interpretation

- **HPHT Lab-Grown Diamonds:** Very strong glow
- **CVD Lab-Grown Diamonds:** Some glow or no glow
- **Any Glow (without blue Long UV):** Lab-Grown Diamond
- **Simulants:** Typically show no glow at all

COLORED PICTURE

- Displays fluorescence under Yehuda's proprietary illumination.
- Different stones fluoresce in different colors.

ORIGINAL PICTURE

- Unaltered image under white light.

SIMULANTS PICTURE

- **Highlights pink fluorescence suggesting CZ and some other simulants.**
- **CZ Detection Criteria (All Must Apply):**

1. Strong pink fluorescence in the SIMULANTS image.
2. No fluorescence in LONG UV.
3. No phosphorescence in GLOWING.
4. No fluorescence or only light-to-medium blue hue in COLORED/RESULT.
- **Exclusion Criteria:**
EVEN IF A STONE SHOWS PINK FLUORESCENCE IN THE "SIMULANT" PICTURE – <mark>IT IS NOT A SIMULANT IF</mark>:
1. Any fluorescence is present in LONG UV.
2. Any glow is present in GLOWING.
3. Non-blue fluorescence appears in COLORED.
- **Performance:** >99% detection accuracy (internal validation).

Moissanite Detection

- No fluorescence under COLORED light.
- No glow in GLOWING.
- Under LONG UV: **Appears black/opaque**.
- AI detects >99% of loose Moissanites accurately. (Internal validation).

Here is a table that summarizes all of the options.

Stone Type	Identification Rules
Natural Diamond	- RESULT: 100% blue fluorescence with no red marking. - LUV: **King test** — only blue fluorescence → 100% Natural (even if GLOWING shows a glow and RESULT shows red or a non-blue color). - COLORED: Blue. May rarely show other color, but if LUV is blue → still 100% Natural. - GLOWING: **No glowing is expected**. However, some natural diamonds with **long-wave UV fluorescence** may exhibit glowing. In such cases, the presence of glowing does not affect the final determination — the stone is still classified as a NATURAL diamond

- SIMULANTS**:** Usually show very light pink reactions. Strong pink fluorescence may appear **only if LUV is blue**, but the stone is still **natural** because of the blue LUV result.
- Note (Flashlight Effect): Strongly glowing stones may cast a red overlay onto nearby non-glowing stones in the RESULT image. To confirm, remove the strongly glowing stones and retest the others.

HPHT Lab-**Grown Diamond**

- GLOWING: Very strong glow.
- COLORED: Very strong blue/turquoise.
- RESULT: Fully red "painting".
- LUV: no reaction.
- SIMULANTS: No reaction.
- **Note: Strong glow may affect nearby stones — it is recommended to test HPHT stones alone.**

CVD Lab-Grown Diamond

- COLORED: Mostly non-blue fluorescence.
- GLOWING: Medium or no glow.
- RESULT: Non-blue fluorescence or red marking; if blue fluorescence is present, it must have red marking.
- LUV: No fluorescence or **non-blue** fluorescence.
- **SIMULANTS:** Usually no reaction; may show pink fluorescence (since it is already identified as CVD — ignore).

Cubic Zirconia (CZ)

- SIMULANTS: Strong pink fluorescence.
- LUV: No fluorescence.
- GLOWING: No glow.

	• COLORED: Light blue.
	• All four conditions must be met; if any LUV, any glow, or non-blue COLORED is present → Not CZ.
Moissanite	
	• RESULT: No reaction.
	• COLORED: No fluorescence.
	• GLOWING: No glow.
	• LUV: Opaque (black).
	• SIMULANTS: No reaction (May show some reflections)
General rules:	
	• Any blue in LUV is the FINAL answer — **Natural**, no matter what you see in other pictures.
	• Any glow in GLOWING with no blue in LUV → Lab-Grown.
	• Any non-blue fluorescence in LUV means-ignore the LUV result and rely on other images.

Golden rule: Never rely on RESULT alone—always check LUV, GLOWING, and SIMULANTS before deciding

EXAPMPLES

FLASHLIGHT EFFECT

Natural diamonds, CZ, and Moissanites **do not exhibit phosphorescence**, except in rare cases.

However, sometimes a stone that **does not have phosphorescence** may still show a **red overlay** in the **RESULT** picture because a nearby **strongly phosphorescent stone** is illuminating it.
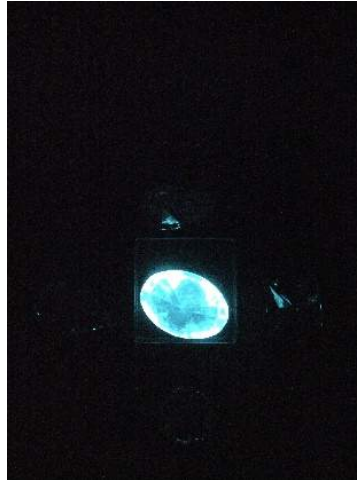
Example:

The Center stone is an HPHT lab grown diamond that has very strong GLOWING. It is so strong that it behaves like a flashlight making surrounding stones appear as if they are glowing.
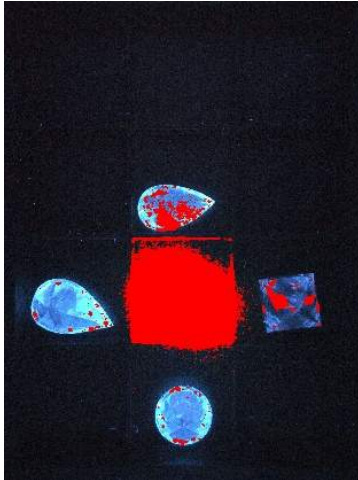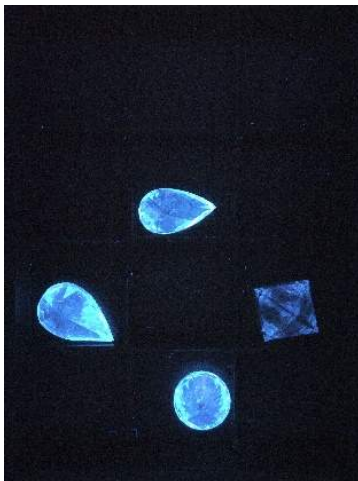
"RESULT"   "GLOWING"

After removing the HPHT stone- the diamonds do not show any GLOWING or red marking any more.
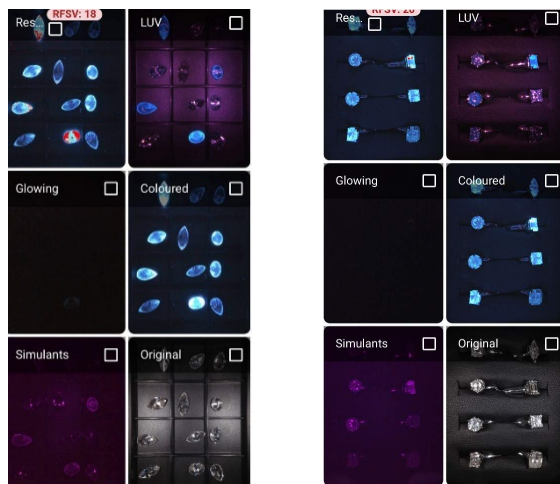
Natural diamonds result screens:

ALL DIAMONDS ARE NATURAL!

- **COLORED Picture:** Natural diamonds will **always appear blue**.
- **RESULT Picture:** Natural diamonds will **always appear blue.** Some stones may also show red markings due to glowing in the **GLOWING picture**. **However,** in the **LONG UV (LUV) Picture** All 3 loose stone and the EC ring show <mark>blue fluorescence**, confirming they are 100% natural**</mark>.
- **SIMULANT Picture:** Natural diamonds may sometimes show slight pink. They may show stronger pink but these stones will still exhibit **blue fluorescence under LUV**, which confirms their natural origin. Usually, any pink is just a **reflection**.

✅ **Key Rule:** Blue fluorescence in the LUV test always indicates a **100% natural diamond**, regardless of other observations.
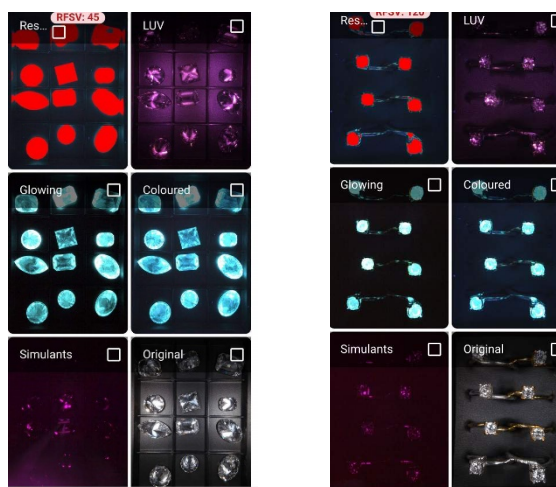

HPHT lab grown diamonds result screens:

HPHT lab grown diamonds will always shine very strongly in the "COLORED" and the "GLOWING" pictures. They will be painted with full red in the "RESULT" picture.

HPHT will not have a reaction in the LUV picture and diamond may have a minor pink color in the "SIMULANT" picture.

It will usually just be just a reflection.

CVD Lab Grown Diamonds

CVD lab grown diamonds result screens:

CVD lab grown diamonds will usually shine with NON-BLUE color the "COLORED" and may or may not have glow in the "GLOWING" pictures. They MAY be painted partially or fully in red in the "result" picture.

REMEMBER: if they are not blue- they are already CVD.

If they are blue but painted in some red- they are CVD.

Pay attention to the EC in the center bottom raw. It is blue with slight GLOWING thus painted in some red – That is enough to call it a CVD

CVD are either NON blue or red painted or both.

CVD will usually not have a reaction in the LUV picture. In rare cases it may show a NON blue fluorescent color.

CVD Diamonds: May rarely show pink in **SIMULANTS**, but once a stone is identified as **CVD** (non-blue and/or glowing), the **SIMULANT result should be ignored**.
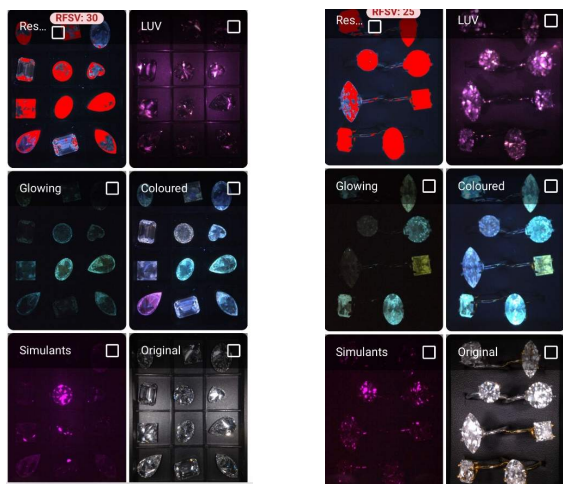
Is it a CVD or an HPHT LAB GROWN DIAMONDS?

HPHT Lab Grown Diamonds

- COLORED: strong blue or turquoise.
- GLOWING: Show very strong phosphorescence.
- RESULT: fully painted red.

CVD Lab Grown Diamonds

- COLORED: Usually non-blue colors.
- GLOWING: None to medium phosphorescence.
- RESULT: Mostly non-blue fluorescence and/or some red overlay.

EXAMPLE:

The top 6 diamonds are HPHT Lab Grown Diamonds:

The bottom 6 diamonds are CVD lab Grown Diamonds

CZ

CZ and some other simulants may show some blue around the outline of the stone or as a reflection in the "COLORED" picture, and show very strong pink fluorescence in the "SIMULANT" picture.

REMEMBER: If a stone has a NON-BLUE fluorescence in COLORED, or a glow in "GLOWING" picture or any color in "LONG UV" picture, it **cannot be classified as a simulant!**
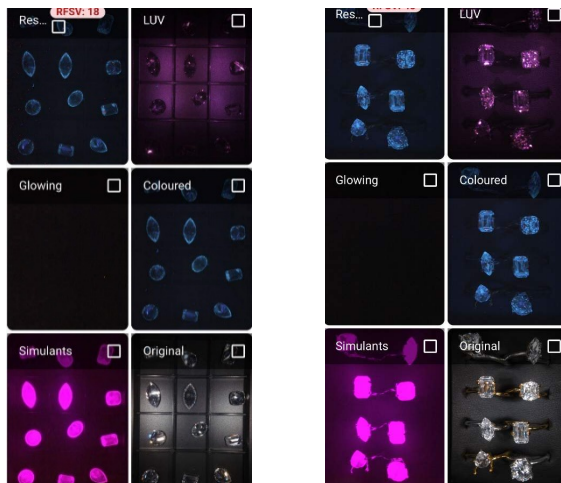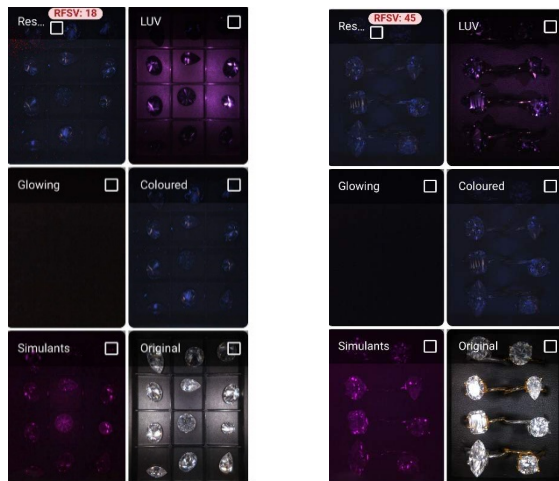
Moissanite

Moissanite will have no reaction in ALL screens.

It may show some reflections, but it will not exhibit fluorescence or phosphorescence,

It does have a unique opaque reaction in the "LONG UV" picture.

💎 AI Functionality

The AI feature is currently in its early development stage.
In internal testing, it has already demonstrated accuracy above 99%, which is a strong start toward our goal of achieving near-perfect results.

Our experts estimate that after testing approximately 100,000 stones per category, the AI will reach its optimal accuracy level. This process takes time, and we will continue to share updates as development progresses.

👉 For the latest information, please visit often the AI capabilities link:
https://www.yehuda.com/ai-model-current-capabilities

- The AI serves as an advisory tool, not a final authority.

- Ongoing updates will continue to enhance performance.

- Please make sure that no tags or paper are visible, as they may reflect light and cause the AI to give an incorrect result.

Activating the AI Function

After completing or saving a test, toggle the AI button to ON.
You will then be prompted to select whether you are testing loose or mounted stones.

AI Stone Classification Colors

Color   Classification

🔵 Blue   Natural Diamond

🔴 Red   HPHT

🟢 Green   CVD

🌸 Pink   CZ (Other Simulants)

🟠 Orange Moissanite

⚫ Black   Refer – AI uncertain (Move the stone and retest. Manual review required)

All result screens will be painted accordingly.
You can tap any screen to enlarge it.
We recommend reviewing the ORIGINAL image with AI markings, but any view can be selected.

If the test is saved, AI results will be stored.

⚠ **Internet Connection Requirement**

- The AI is cloud-based and requires an active internet connection.

- Connection speed affects how long results take to generate.

- You can save a test, enable AI, and continue testing other stones while results process in the background.

- You may also log in anytime at cloud.yehuda.com to review or run AI analysis.

- Once generated, AI results are saved and load instantly upon reopening.

- If you download a test after AI results are ready, an extra image showing AI markings on the original stone will be included.

- ## Factors That May Affect AI Accuracy

#	Issue	How to Avoid
1	Unclean stones (loose or mounted)	✅ Always clean all stones thoroughly before testing.
2	Overlapping loose stones	✅ Place each stone separately, ensuring none overlap.
3	Rings with side stones	✅ Retest from multiple angles for full coverage.
4	Strong reflections	✅ Slightly reposition the stone and retest.
5	HPHT "flashlight effect"	✅ Remove glowing HPHT stones and test nearby stones separately.
6	Stones in the corner are hard to determine	✅ Reposition stones toward the center of the tray.
7	Stone is not painted by the AI or painted in black	✅ Reposition the stone and test again. If the same result occurs, use manual decision.
8	Tags or any paper	✅ Hide tags or any paper.

How to Use AI Results

1. Primary Reliance
   Always rely on your manual reading first.

2. AI as a Secondary Check.
   Use AI results as supporting information, not as the sole determination.

3. Handling Discrepancies

   o If AI and manual interpretations differ:

     ▪ Reposition and retest the stones.

     ▪ Report discrepancies to Yehuda Support - these help improve AI accuracy.

Viewing AI Confidence Levels

AI confidence levels are available only through your Back Office at cloud.yehuda.com.
After selecting a test and enabling the AI:

- Tap any result image to enlarge it.

- Hover your mouse over any stone to view its AI confidence percentage.

- A value closer to 1.0 indicates higher confidence in the classification.

Troubleshooting & Support

For any issues, please visit **www.yehuda.com** and watch the instructional video that matches your concern.
We have created numerous short tutorials, and you will likely find one that addresses the problem you are experiencing.

Customer Support

In-App Support → Open the app, go to **"CONTACT US"**, describe the issue, and send it. We will reply by email or phone as soon as possible.

✉ **Email**: sh@yehuda.com
🌐 **Website**: www.yehuda.com

📞 Phone & WhatsApp Support

Region / Service	Contact Number
IL Israel	+972-3-575-1456
US USA – New York	+1-212-221-5985
🔢 USA – WhatsApp Support	+1-646-771-4493
🏛 USA – Pawnbrokers (Ido)	+1-702-523-6982
IN India	+91-98205-11479
GB United Kingdom	+44-7837-450560
DE Germany	+49-176-767-24218
IT Italy	+39-342-855-1746
TR Turkey	+90-532-247-0985

Troubleshooting Guide

Problem / Error Message	Solution
⚡ Detector won't power on	Check cable → Hold power button **3 sec**
🔌 App not connecting	Restart phone & detector → Check Ethernet & USB
🔍 Images appear blurry	Tap screen or use focus slider
🎛 No red markings appear	Set **Red Filter** all the way to the left
🔴 "Device cover tray is not closed" – WATSON AI	Align top cover with base → Press **Retry**
🔴 "Device cover tray is not closed" – SHERLOCK AI	Ensure that the drawer is fully shut → Press **Retry**
📦 "Failed to connect to box"	Power ON (3 sec) → Wait for green LED → Press **Retry**, then **Close**

Yehuda AI Diamond Detector – FAQ

Q: What does the detector do?
A: It separates natural diamonds from lab-grown (CVD/HPHT) and simulants (CZ, Moissanite).

Q: Q: Which stones can I test?
A: White diamonds (D–K color), CZ, and Moissanites, whether loose or mounted. Not suitable for fancy-color or very low-clarity stones, colored gemstones, or any other gemstones not specifically mentioned here.

Q: How do I know the result?

- **Natural Diamond** → Only blue in RESULT. *Golden rule*: Only blue under LUV (even if RESULT shows more).
- **CVD Lab-Grown** → non-blue fluorescence or glow.
- **HPHT Lab-Grown** → Very strong blue-green glow.
- **CZ** → Strong pink in Simulants, no glow, no LUV, no non-blue in RESULT.
- **Moissanite** → No reaction in RESULT, opaque/black under LUV, no glow in GLOWING.

Q: What if a stone glows?
A: Any glowing stone is lab-grown (never CZ or Moissanite). A natural diamond may glow only if it shows blue under LUV — in that case it is Natural.

Q: How does the AI show results?

- Blue = Natural
- Green = CVD
- Red = HPHT
- Pink = CZ
- Yellow = Moissanite
- Black = Refer (needs retest)

Q: How accurate is it?
A: Over 99% in internal testing, and improving with every use.

Q: Can I test stones in jewelry?
A: Yes, rings and simple jewelry can be tested. Please ensure they are cleaned.

Q: Can I test parcels or small stones?
A: Yes, the detector works with parcels and melee of any size.

Q: Can I test colored gemstones?
A: No. The detector is not designed to test colored gemstones or fancy-color diamonds.

Q: What is a FALSE POSITIVE result?
A: A False Positive occurs when a *natural* diamond is mistakenly identified as *lab-grown*. About 2% of natural diamonds give a false positive result. By comparison, other detectors in the same price range typically have a 5–15% false positive rate.

Q: Can I test lower-color diamonds?
A: Yes, but they will produce a higher rate of false positives. However, if the result indicates *Natural Diamond*, you can trust it.

Q: Do I need to clean stones first?
A: Yes, dirt or oil can affect results.

Q: Can I test stones inside plastic bags?
A: Thin bags may work, but direct testing is best.

Q: How long does a test take?
A: About 15 seconds.

Q: What if the AI shows "Refer"?
A: Retest the stone separately to confirm.

Q: Do I need calibration?
A: No, the detector is self-calibrating.

Q: How do I keep it working properly?
A: Keep the device clean, avoid thick coverings, and update the Yehuda App regularly.

Q: What if I have a technical issue?
A: Use **In-App Support**: open the app → "Contact Us" → describe the issue and send. We will respond by email or phone as soon as possible.

📖 <u>Glossary</u>

AI (Artificial Intelligence)

Software built into the Yehuda Detector that analyzes test images and provides advisory color-coded classifications of stones.

COLORED Picture

Test image showing stone fluorescence under Yehuda's proprietary illumination. Used to detect color responses (blue for natural, other colors for lab-grown).

CVD (Chemical Vapor Deposition)

A type of lab-grown diamond produced by depositing carbon atoms in a vacuum chamber. Typically shows non-blue fluorescence.

Fluorescence

Visible light emitted by some stones when exposed to UV illumination.

- **Blue fluorescence** → Natural diamond.
- **Non-blue fluorescence** → Usually lab-grown (CVD or HPHT).

Flashlight Effect

When a strongly glowing stone (usually HPHT) casts a red overlay onto nearby stones in the RESULT image, making them appear as if they are glowing.

GLOWING Picture

Displays phosphorescence after the light is shut off. Used to identify lab-grown stones (HPHT → strong glow, CVD → weak/none).

HPHT (High Pressure High Temperature)

A type of lab-grown diamond created by simulating natural formation conditions (extreme heat and pressure). Typically shows strong glowing and turquoise fluorescence.

LUV (Long-Wave UV)

Test image showing fluorescence under long-wave ultraviolet light. Considered the "**King Test**":

- Only blue fluorescence → 100% Natural diamond.
- Any non-blue or no fluorescence → Result must be confirmed with other tests.

Moissanite

A diamond simulant with very high brilliance. Does not fluoresce or glow, but appears black/opaque in the LUV image.

Natural Diamond

A diamond formed naturally in the Earth. Detection rule: **blue-only fluorescence under LUV** = Natural, regardless of other images.

ORIGINAL Picture

A reference image of the stones in normal white light, without filters.

Phosphorescence

Light that continues to glow after the UV light is turned off. Strong in HPHT stones, sometimes present in CVD.

RESULT Picture

The default test image that combines colored and glowing effects. Shows red markings where lab-grown phosphorescence is detected.

Red Filter

Adjustable sensitivity filter used in RESULT images to highlight red markings from phosphorescence. Must be set to the lowest number for correct results.

SIMULANTS Picture

Special filter image that highlights strong pink fluorescence in CZ and other simulants.

Simulants

Stones that look like diamonds but are not real diamonds (e.g., CZ, Moissanite, synthetic white sapphire).

USB-C Cable & Ethernet Adapter

Supplied accessories used to connect the detector to the smartphone for power and data transfer.

Disclaimer

The results provided by **Sherlock AI** and **Watson AI** are made available **"as is"**, without any guarantees or warranties regarding their completeness, accuracy, or reliability.

These systems are provided **without warranty of any kind**, either express or implied, including but not limited to the implied warranties of **merchantability**, **fitness for a particular purpose**, and **performance**.

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