Please visit our website for updates about
the **einstein**™ Science Learning Platform
www.**einstein**world.com
support@einsteinworld.com

einstein™

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FCC ID: 2AAKDEINSX02
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.

The FCC Wants You to Know: 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 radio frequency 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:
a) Reorient or relocate the receiving antenna.
b) Increase the separation between the equipment and receiver.
c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
d) Consult the dealer or an experienced radio/TV technician.

FCC Warning: Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC Rules.

einstein™ Tablet+2 Quickstart Guide

What's in the Box?

In the box you should find the following:

1. **einstein**™Tablet+2
2. AC adapter
3. USB cable
4. Cleaning cloth
5. Screen protector
6. Quickstart Guide

Thank you for choosing the **einstein**™Tablet**+**2.
This Android tablet is equipped with built-in sensors plus exploration and analysis apps, making it an advanced, all-in-one science lab.

This **einstein**™Tablet**+**2 is also your entry into the **einstein**™ Learning Platform – an entire world of science experiments and apps designed to bring science learning into the 21st century.

The **einstein**™Tablet**+**2 was designed to encourage science discovery and hands-on exploration by students of all ages. The 10 built-in sensors cover the basic needs of science learning while the 4 external ports allow you to add up to 8 external sensors (over 60 to choose from within the **einstein**™ Learning Platform). This makes the **einstein**™Tablet**+**2 not only accessible to the youngest learners but also provides a way to run highly sophisticated experiments that can gather data from 18 different sensors simultaneously.

In addition to this powerful hardware, the **einstein**™Tablet**+**2 is bundled with apps designed to reinforce the hands-on learning techniques adopted by the latest science learning standards and a classroom management app. Integrating these apps into the classroom is made even easier by the online resources available on our website **einstein**world.com or our Activity Store activitystore.**einstein**world.com

Okay, time to open up the guide and start exploring!

The **einstein**™ team

10 Built-in sensors

- Microphone (70 to 20000 Hz)
- Sound (40 to 110 dB)
- GPS
- 3-Axis Accelerometer
- UV (Index)
- Light (1 to 128,000 lux)

Microphone/Sound sensors

Headphone jack

mini-HDMI

Micro-SD

Light/UV sensors

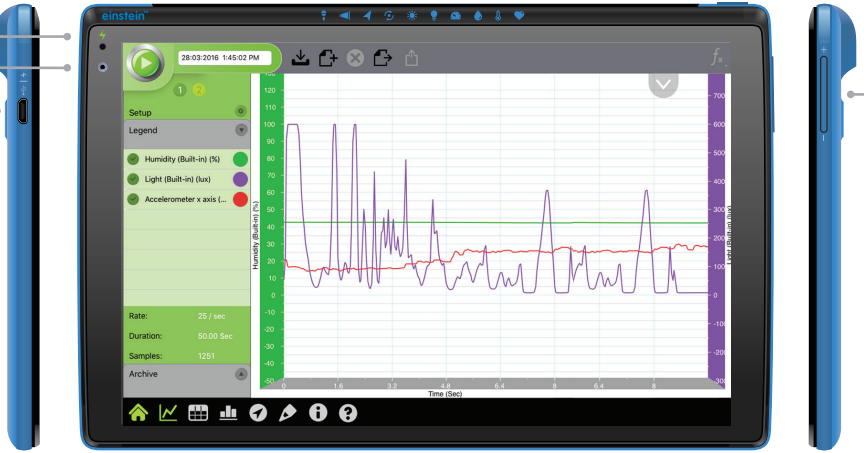
Power button

4 ports compatible with 60+ **einstein**™ external sensors

Charge indicator light

Front Camera

Micro-USB/ Charger



Volume

- Projector Friendly Ultra HD output
- Wi-Fi
- Bluetooth 4.0
- Supports a 128GB Micro-SD card
- Long Lasting Battery

Barometric Pressure
(260 to 1260 mbar)

Relative Humidity
(0 to 100 %)

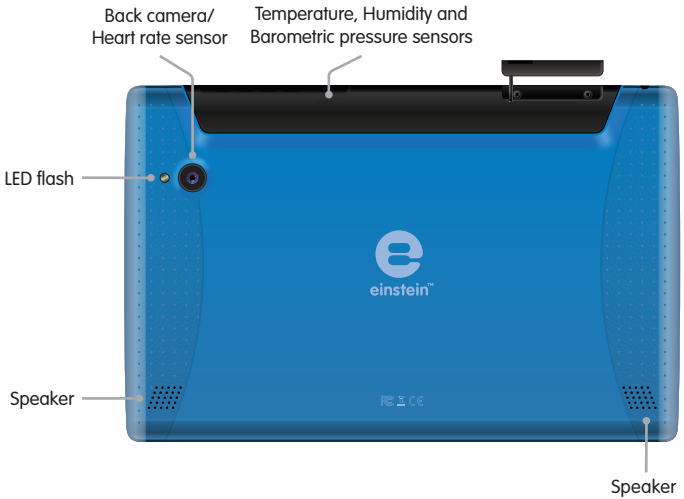
Temperature
(-15 to 50 °C | 5 to 122 °F)

Heart Rate
(40 to 240 bpm)

+ over 60 **einstein**™ external sensors

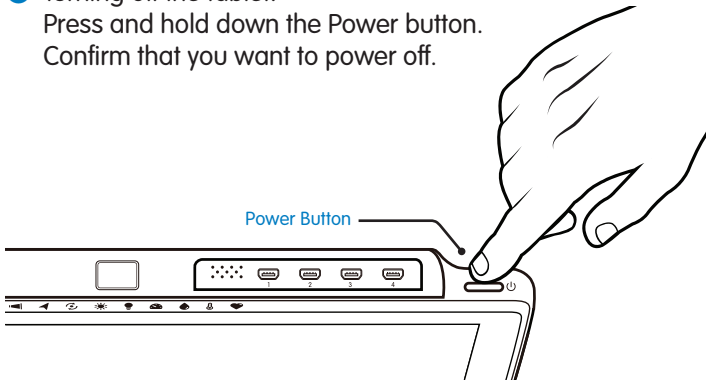
(sold separately)

The **einstein**™Tablet+2 comes with the 10 built-in sensors listed above to start you on your way to a full, hands-on science curriculum. To find out more about customizing and expanding the tablet's capabilities check out our website: **einstein**world.com/sensors



Using your tablet

1. Turn on your **einstein**™Tablet+2:
   - To turn on your tablet press the Power button down until the **einstein**™ logo appears on the screen, then release
   - Swipe the lock icon to start accessing your tablet's apps
2. Start experimenting
3. Turning off the tablet:
   Press and hold down the Power button.
   Confirm that you want to power off.



Charging the battery:

Plug the AC adapter into a wall socket.

Plug one end of the Micro-USB to USB cable into the AC adapter and the other into the Micro-USB port on the tablet.

The Charge Indicator light will turn red ϟ when battery power is low and green ϟ when the tablet is fully charged.

Note: An on-screen indicator will give you an accurate indication of battery power.

Note: The tablet may become warm when connected to the charger.

Warning: Using an unauthorized charger may damage the tablet.

Using the sensors

The Light and UV sensors are located at the top of the tablet. To take a reading aim the sensor at the light source you want to measure. The Temperature, Humidity and Barometric Pressure sensors are located at the top of the tablet.

When measuring, make sure the sensors are in the area you want to measure. The Heart Rate sensor is located on the back of the tablet and is built into the camera.

Note: Be careful not to cover the sensors' ventilation holes.

Applications

MiLAB

is a science learning app that turns your tablet into a sophisticated science lab.

- Open the app by tapping the icon
- Use the checkmarks to turn the various sensors on and off
- Tap Run to begin measuring
- Learn more about MiLAB at: **einstein**world.com or the **einstein**™YouTube channel: youtube.com/FourierEdu

einstein™World

gives you access to dozens of interactive science Activities.

- Open the app by tapping the icon.
- Join **einstein**™World
- Download new Activities from **einstein**™World or from activitystore.**einstein**world.com.

Class Management

Leading Classroom Management app preloaded on your tablet

- Connect your class devices to a single classroom network
- Use your tablet to control all the devices in your classroom

(separate license purchase required)

Quick Experiments

Take your tablet for a test drive with these Quick Experiments.

For more experiments, go to **einstein**World.com/experiments

Rate My Heart

Understanding how the heart works is basic to understanding the human body and is one of the first experiments any science student should learn to perform. The **einstein**™Tablet+2 makes these first steps fun and easy.

For this experiment we will try out **einstein**™World, an app that allows you to download multimedia Activities incorporating sensor-driven data.

1. Open your browser
2. Go to activitystore.**einstein**world.com
3. If you haven't yet registered for **einstein**™World tap "Sign Up"
4. Follow the registration procedure
5. From the Activity Store search for "Rate My Heart"
6. Tap "Rate My Heart" and then "Download"
7. Tap the **einstein**™World icon
8. Sign in
9. Tap the "Rate My Heart" icon
10. The Activity will guide you, step-by-step, through the experiment

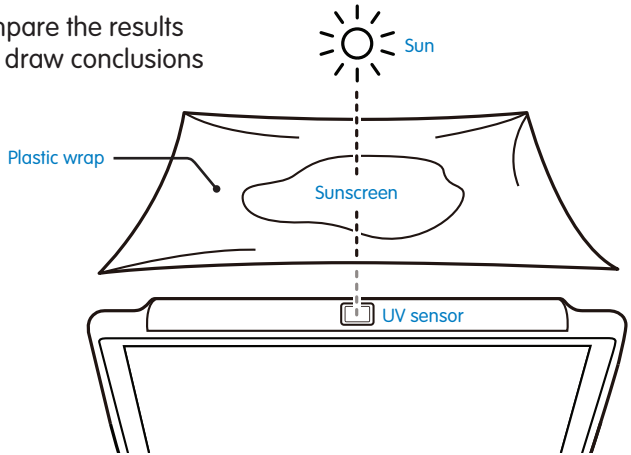
The Sun – Friend or Foe?

In this investigation we will explore UV radiation. You will observe how well sunscreen blocks UV radiation. Based on the results, students will create a set of guidelines to help protect themselves from UV radiation.

For this experiment you will need:

- **einstein**™Tablet+2
- Plastic wrap
- Sunscreen
- A sunny day

1. Go outside
2. Tap the MiLAB icon to open the MiLAB app
3. Make sure only the UV sensor is selected
4. Point the UV sensor at the sun (see illustration)
5. Tap the Meter icon (this will let you see the reading in a digital format)
6. Tap the Run button
7. Note the UV level
8. Spread sunscreen on the plastic wrap
9. Point the UV sensor at the sun
10. Hold the plastic bag with the sunscreen in front of the UV sensor
11. Tap the Run button
12. Note the UV level
13. Compare the results and draw conclusions

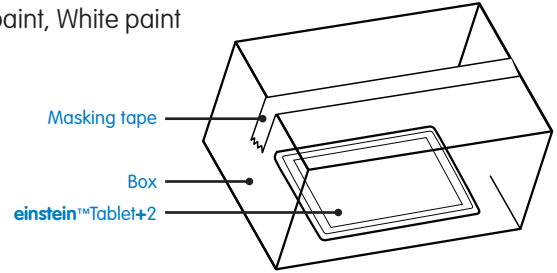


Dress for Success: Light Absorption and Light Reflection

In this investigation we will explore light absorption and light reflection using two boxes, one painted black and one painted white.

For this experiment you will need:

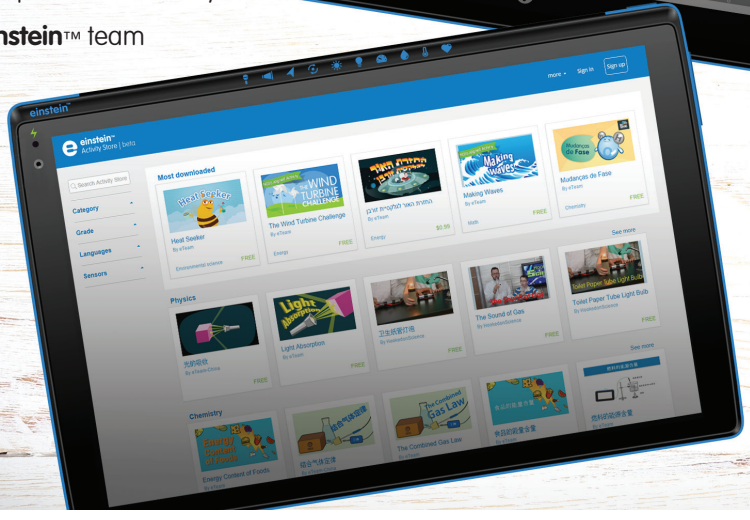
- **einstein**™Tablet+2
- Two identical boxes (big enough to hold the tablet)
- Black paint, White paint
- Masking tape
- A sunny day

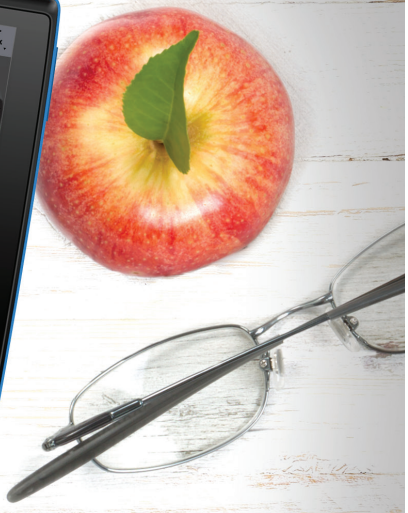


Note: For improved accuracy use two tablets to check the boxes simultaneously

1. Paint one of the boxes white and one of them black (let them dry)
2. Tap the MiLAB icon
3. Make sure only the Temperature sensor is selected
4. Tap the Setup icon
5. Use the wheels to set the Rate to "1 per second"
6. Use the wheels to set the Duration to 30 minutes
7. Tap the Run button
8. Use the masking tape to seal the tablet in one of the boxes
9. Put the box in the sunlight
10. After 30 minutes take the tablet out of the box
11. Tap the Save icon
12. Repeat steps 3-10 using the other box
13. Compare the two graphs – tap Archive in MiLAB to access the saved experiment

Of course these are just the tip of the iceberg. Using the MiLAB app you can create an unlimited number of experiments covering the entire range of science curricula from K-12. Go to **einstein**World.com/experiments to access over 100 experiments already created by the **einstein**™ team



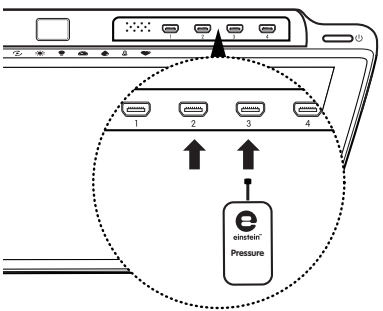


or visit the Activity Store at activitystore.**einstein**world.com to download more exciting science Activities.

Connecting external sensors

External sensors can be added by connecting a sensor cable to the **einstein**™Tablet+2. Insert the sensor cable into one of the 4 sensor ports on the tablet and then connect the other end of the sensor cable to the sensor. Up to 8 external sensors can be added by adding a splitter to each port. Please note the position of the sensor's connector. When properly positioned, the sensor cable should fit in smoothly.

The **einstein**™Tablet+2 supports more than 60 different **einstein**™sensors, though some sensors may require an additional cable or adapter.



For a complete list of sensors, please visit our website.

einsteinworld.com

Additional experiments you can do with external sensors:

- Compare the pH of Cola and Water
- Electric Conduction of Metals
- Effect of Light on Photosynthesis Rates
- Alcoholic Fermentation in Yeast
- The Heat of Combustion
- Freezing and Melting of Water
- The Magnetic Field of a Bar Magnet
- The Energy of a Tossed Ball

And many more...

einsteinworld.com/experiments

Specifications

Model Number: ENTAB2

CPU: Quad-core, 1.8 GHz

Screen: 8.9” 1280 x 800 LED IPS

Memory:
Internal memory: 16 GB

Features:
2 Megapixel camera (Front)
8 Megapixel camera (Rear) + LED flash
Speakers: 1W x 2

Connectivity:
Wi-Fi: 802.11 b/g/n
Bluetooth: Bluetooth 4.0, BLE
GPS

Ports:
Mini-HDMI: 1 port
External sensor port: 4x
Micro-USB: 1 port

Power Supply:
Battery: Li-Polymer, 6200 mAh
AC adapter: 5V/2A

Certifications:
CE, FCC, CCC, EAC

Updates

Fourier will provide automatic Over the Air (OTA) push updates to your tablet. You will need an active internet connection to update.

To update the tablet, make sure that the tablet is 30% charged or connected to the AC adapter.

Warnings

- Opening the tablet, by anyone other than an authorized dealer, will void the warranty
- Do not cover the ventilation openings during use
- Keep the tablet away from extreme heat or cold
- Do not use solvents when cleaning the screen
- Never immerse the tablet in water and avoid exposure to high humidity
- Do not dispose of the tablet with regular waste, recycle both the tablet and the battery in designated places

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-Consult the dealer or an experienced radio/TV technician for help.

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types ENTAB2、einstein II+、E892 (FCC ID: 2AAKDEINSX02) has also been tested against this SAR limit.

The highest SAR value reported under this standard during product certification for use when properly worn on the body is 0.639 W/kg.