

User Manual

Product Name: Eyeruler 2

Model:EXP000100ER,ER2-000100

Brand: ACTIVISU

Manufacture:SHANGHAI LIANKAI MACHINERY CO.,LTD

ACTIVISU Eyeruler 2

Measuring instrument for the customisation of ophthalmic lenses with iPad

I. Safety of the instrument

Warning

Correct installation and use of the instrument are essential to ensure optimum safety of the instrument.

Please read these instructions before switching on the instrument.

We also invite you to read the operating manual carefully with respect to the use of any additional equipment which may be used. If used in a manner not specified by the manufacturer's instructions, the protection provided by the instrument may be impaired.

You can obtain more information from your distributor.

Warning notes and labels

Please read carefully the general and safety notes contained in the instructions for use and those present on the instrument and its accessories.

Warning:

Please be aware of risks which may result in equipment damage, personal injuries person or serious physical harm.

Declaration of conformity

The instrument complies with European Directives Directive 2014/53/EU and 2011/65/EU

Warning:

Specific warning related with the Neodymium magnet

Powerful attraction forces can cause serious injury.

Neodymium magnets are more powerful than other kinds of magnets. The incredibly powerful force between magnets can often be surprising to those unfamiliar with their strength.

Fingers and other body parts can be pinched between two magnets. With larger magnets, injuries of this type can be severe.

Neodymium magnets are not for children.

Neodymium magnets are not toys. Children should not be allowed to handle neodymium magnets. Small magnets can pose a choking hazard. If multiple magnets are swallowed, they can attach to one another through intestine walls. This can cause a severe health risk, requiring immediate, emergency surgery if correctly diagnosed.

Neodymium magnets can affect pacemakers.

The strong magnetic fields near a neodymium magnet can affect pacemakers, ICDs and other implanted medical devices. Many of these devices are made with a feature that deactivates it with a magnetic field. Therefore, care must be taken to avoid inadvertently deactivating such devices.

Neodymium magnets are brittle and fragile.

Neodymium magnets are made of a hard, brittle material. Despite being made of metal, and the shiny, metallic appearance of their nickel plating, they are not as durable as steel.

Neodymium magnets can peel, chip, crack or shatter if allowed to slam together. Eye protection should be worn when handling magnets, since shattering magnets can launch small pieces at great speeds.

Neodymium magnets are not easily drilled or machined.

Magnets can affect magnetic media.

The strong magnetic fields near neodymium magnets can damage magnetic media such as floppy disks, credit cards, magnetic I.D. cards, cassette tapes, video tapes or other such

devices. They can also damage televisions, VCRs, computer monitors and CRT displays. Avoid placing neodymium magnets near electronic appliances.

Neodymium magnets can become demagnetized at high temperatures.

While operating temperatures are often listed as 80°C (175°F), the actual maximum operating temperature of a magnet can vary depend on the grade, magnet shape and how it is used.

Neodymium magnet powder or dust is flammable.

Avoid drilling or machining neodymium magnets. When ground into a dust or powder, this material is highly flammable.

Those with nickel allergies should avoid prolonged contact with magnets.

A small percentage of people have a nickel allergy, where an allergic reaction can cause redness and a skin rash. Those with nickel allergies should avoid directly handling nickel plated neodymium magnets.

Strong magnetic fields can interfere with compasses and navigation.

[IATA](#) (International Air Transport Association) and [US Federal](#) rules and regulations cover shipping magnets by air and ground delivery. Magnetic fields can influence compasses or magnetometers used in air transport. They can also affect internal compasses of smartphone and GPS devices.

Neodymium magnets can corrode.

Neodymium magnets can rust or corrode in the presence of moisture. While the three layer, nickel-copper-nickel plating on most of our magnets provides enough protection for many applications, they are not waterproof. If used underwater, outdoors or in a moist environment, they can corrode and lose magnetic strength.

Specific warning related with the LiPo battery

Lithium-Ion Polymer batteries are volatile.

Read these safety instructions and warnings before using or charging your batteries.

- Store and charge in a fireproof container; never in your model!
- Never short a LiPo Battery by cutting both wire leads simultaneously, contact with a conductive object, or any other means. If you accidentally short the wires, the battery must be placed in a safe area for observation as described above.
- Never store or charge a battery pack inside a vehicle (especially in extreme temperatures).
- Store battery at room temperature between 40 and 80 °F (4 to 27 °C) for best results
- Do not expose battery pack to direct sunlight (heat) for extended periods. Charging of LiPo Battery Packs

- Let LiPo Battery Pack cool down to ambient temperature before charging. Only charge batteries when the ambient, battery, and charger temperatures are between 32 and 113 °F (0 to 45 °C)
- Never charge batteries unattended or overnight. When charging LiPo batteries you should always remain in constant observation to monitor the charging process and react to potential problems that may occur.
- Discharge only when the battery and ambient temperatures are between 32 and 140 °F (0 to 60 °C).
- As a general guideline, a battery should never become so hot you cannot hold it tightly in your hand. Battery Disposal
- Before recycling, discharge the battery to 3V/Cell, make sure output wires are insulated, and then wrap the battery in a bag.
- Do not dispose of LiPo batteries in the trash! Take your battery to an approved battery recycling facility. In the US, visit [call2recycle](http://call2recycle.org) for a location near you.

Correct installation and use of the instrument are essential to ensure optimum safety of the instrument.

Please read these instructions before switching on the instrument.

With normal use, the instrument should not require servicing. However, if it fails to operate satisfactorily or if you find that your instrument needs repair, carefully pack and return it to your local distributor.

II. Instructions for installation and use

- Please observe all applicable regulations for the prevention of accidents.
- Ensure the person(s) intending to install the instrument have the physical strength needed to carry it and manipulate it.
- Do not force the electrical connections during installation. If a connector does not fit on a plug, ensure they are in fact intended to fit one another. If a connector is damaged, entrust the repair to one of our technicians or any other authorised representative.
- Protect the instrument from dirt, dust, liquids, extreme temperatures and keep it away from any direct or excessive light source.
- Only use the instrument in a closed room.
- Water condensation may form on or in the instrument if it is located in an area subject to high temperature variations. To avoid

any damage, allow time for the moisture to evaporate before using the instrument.

Note: If the instrument is moved from a hot environment to a cold environment or vice versa, it is advisable to wait until the device is adapted to room temperature before switching it on.

- Do not switch on the instrument in an environment classified as having a risk of explosion. Do not use the instrument in the presence of flammable substances and volatile solvents such as alcohol, benzoline, or any other similar chemical product.

- Unplug the appliance immediately if smoke, sparks or unusual noises come from the instrument and do not use the camera any longer until it has been repaired by your distributor's technical service team.

- Do not place any container containing liquid on the instrument. Make sure that no liquid can seep into the instrument.

- Do not use a cell phone in the immediate vicinity of the instrument. It may pose a risk to the proper functioning of the instrument. Any malfunctions which occur may depend on a number of totally unpredictable local factors.

- Use the instrument solely for the purposes described.

- Only use accessories included as standard equipment with the instrument.

- Only clean the instrument in accordance with the notes contained in the instructions for use.

- Never attempt to open, modify or repair the instrument on your own or do this on the orders of someone other than the person designated by your dealer as you may lose all the benefits of the warranty of the instrument.

- We can only use the instrument while there is a good grounding connection.

- The instrument is powered by connecting the mains plug to a standard socket-outlet, always place the instrument such a way it is easy for the operator to unplug mains plug in emergency.

III. Recommendations for lighting/installation

- Make sure that the intensity of light at the place of installation is not less than 400 lux.
- To avoid backlighting, do not orientate the front of the mirror or have the patient face a window.
- Avoid any direct light from the ceiling in order to avoid shadows that could affect the measurements.
- Make sure the existing lighting will not cause significant reflections in the eyes of patients.

IV. Security when operating

Cleaning/electrical safety

- The instrument may be cleaned using a dry towel. Do not use liquids to clean.
- The instrument must not be opened for cleaning.
- Do not insert any object in the openings of the instrument. This could cause a short-circuit of the internal components and cause an electrical discharge or ignition.
- To prevent the instrument overheating, the ventilation holes, especially those on top, must not be covered.

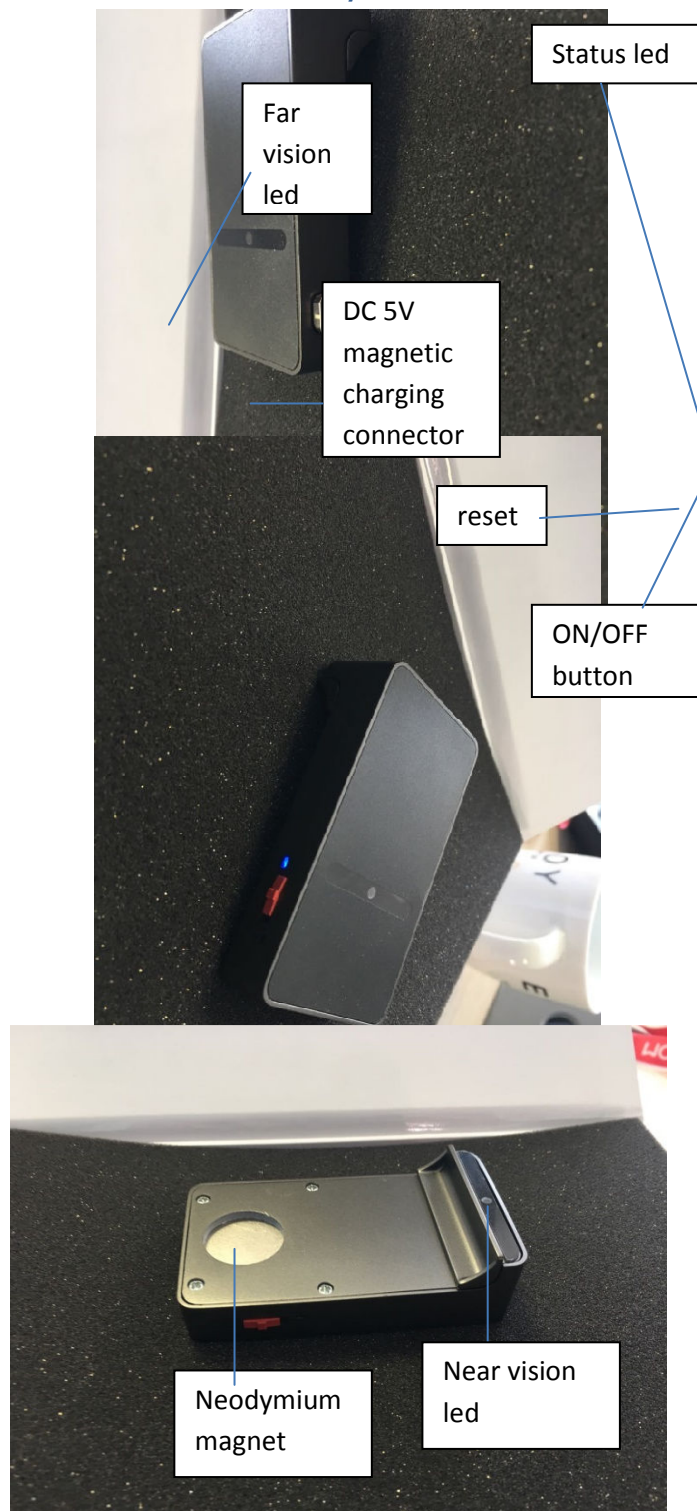
At each launch (in the morning at the general opening)

- Make sure all the precautions required above have been followed.
- Turn on the switch designed for that purpose (see photo at the end of the guide), and allow the software to boot up.
- Activate the bluetooth on your ipad and search for eyeruler device.
- Launch Eyeruler 2 software

Switching off procedure

- Quit the software
- Turn off the device

V. Connectors and I / O



VI. Environment and electrical information

Environment conditions

- Intended to indoor use only, ability to work at 2000m up altitude.

- System is design for work at ambient temperature from 5° to 40°C with maximum humidity 80%.
- Applicable rated pollution degree:

Electrical Rating

- Eyeruler power supply: Input 100-220V~ AC, 50-60Hz, 2.0A ; output is 2x 5V 2.4A
- Eyeruler device is 5V 500mA DC

VIII. Terms of use

- This high-performance instrument uses the principle of stereoscopy (reconstruction of 3D images). It is designed to measure the centring data for the customisation of spectacles, help the customer in the choice of the frame and see the advantages of various lenses.
 - If you use the instrument for any purpose other than those specified above or otherwise than in accordance with instructions for use, you assume full responsibility for the consequences thereof.
 - Please keep the instructions for use in an easily accessible place so you can access them any time.
- Interactif

IX Operating procedure

Setup



Put the positionning jig on the ipad after centering it on the camera



Take out the protection tape on the magnet and stick the magnet on the ipad



Remove the protection sticker from the eyeruler 2 device :

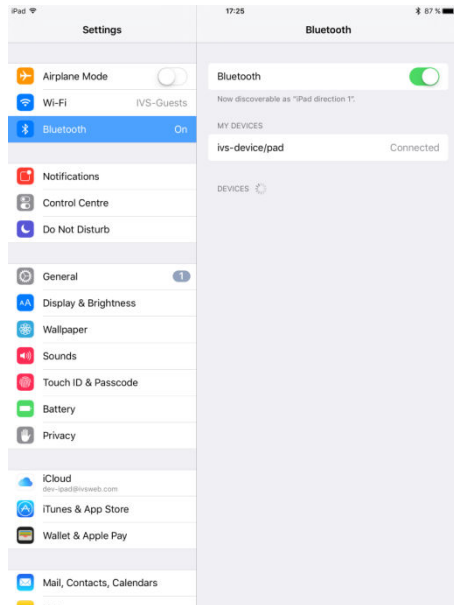


You can now put your eyeruler device on the back on the ipad, it will be hold by the magnet

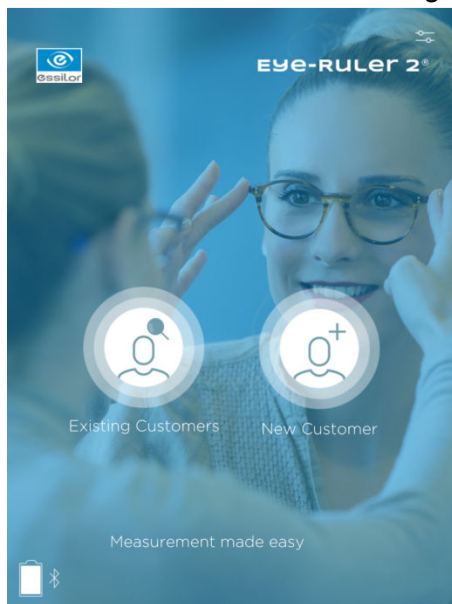


X. Using Eyeruler 2 software

1. Before using eyeruler 2 charge it one night or 5 to 7 hours
2. Connect your eyeruler with the ipad
 - a. IOS
 - b. Bluetooth
 - c. Searching for device
 - d. Add the device



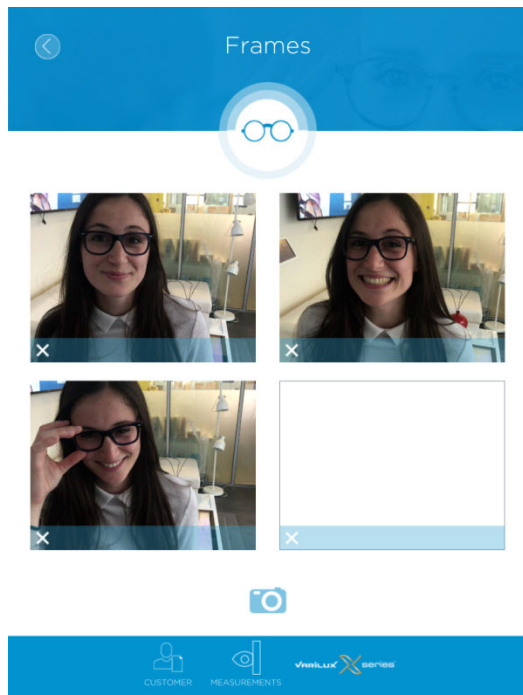
3. Download Eyeruler App
4. Start the app, input your licence nber
5. Add a customer or chose existing one



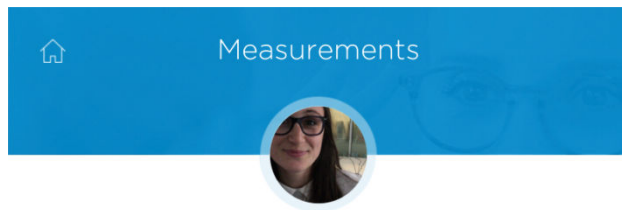
6. Fill customer information

The screenshot shows a mobile app interface for entering customer information. At the top is a blue header with a home icon, a profile icon, and a share icon. Below the header is a date and time stamp: "04/07/17 17:25". The main form area contains several input fields: "Sophia" and "MITCHELL" (likely first and last names), "Zipcode", and "Email". Below these fields is a blue circular button with a white plus sign and the text "More info". At the bottom is a blue footer bar with icons for "FRAMES", "MEASUREMENTS", and "Visual.Lux 3D" logo.

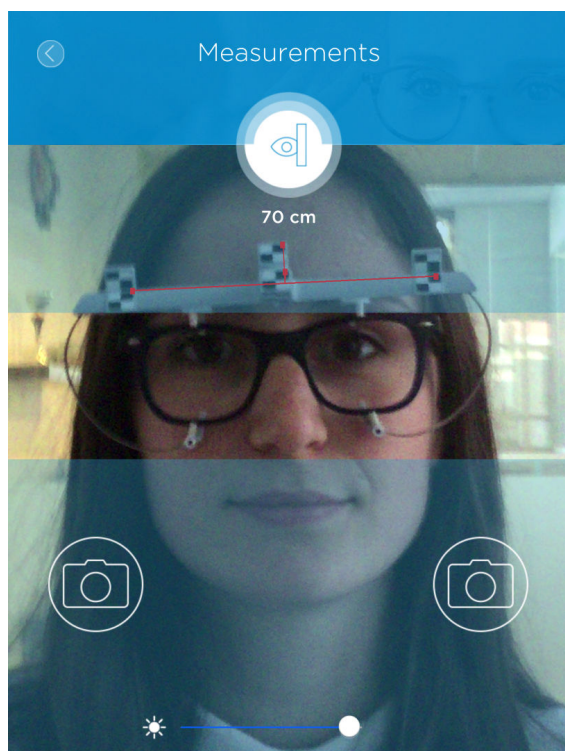
7. Frame menu allow you to take some photos and to compare them



- Put the clip on the customer eyeframe and proceed with measurement



- Ask your customer to stand about 70cm far from the ipad and launch measurement



FCC Caution.

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.

Any 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 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:

- 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.