



**HRD RESEARCH**  
MICROSCOPES & LAMPS

# STATE OF THE ART EQUIPMENT: M1 & M1 IoT



## THE FIRST IoT JEWELLERY MICROSCOPE EVER

M1 IoT is the next generation of digital gemology microscopy. Take pictures and videos of the whole stone or jewel and make libraries during grading with 8 MP colored integrated camera, with one touch.

With the integrated MS Windows 10 computer, you can download and install any software you will need. Connect to Internet with Wifi or Ethernet connections, upload your images and videos to cloud storage or to your website.

A FullHD 13.3 inch touchscreen gives crystal clear images and makes the device userfriendly. The touchscreen is easily adjustable to achieve maximum comfort. A USB port is ready for data transfer or connection to any 3rd party device such as a spectrometer.

Connect to your Whatsapp and make video calls, zoom or use any other Video Conferencing software and show the quality of the gemstone, jewellery or even mounting to your clients or experts.

### Revolutionary diffused dome light

A mounted dome light gives 6500K White and 5000K daylight for diamond, colored stones and jewelry examination. In addition to these, we have adapted UV light for fluorescence examination and non diffused top light for examining the reflections. The control panel puts all the controls of the lights in one place, in front of the user. No need to look for buttons. There are illuminated on/off buttons and dimmers for all the lights.

### Circular Magnetic Vacuum Manipulator

We designed a vacuum manipulator for a better ease of use. Take the manipulator out, grab the stone from the etrin or parcel paper and put it back. Integrated magnets allow one click lock. With the circular design, there is no need for a bulky joystick anymore. There is a silent, non vibrating vacuum pump integrated into the body. The silicon hose can be replaced by removing the plug if damaged.





## CARACTERISTICS:

M1

M1 IoT

optics

Leica S9E FusionOptics

Leica S9D FusionOptics

illumination

Darkfield  
6500K Diff. Dome Light  
5000K Diff. Dome Light  
Long Wave UV Light  
Top Ring Light

Darkfield  
6500K Diff. Dome Light  
5000K Diff. Dome Light  
Long Wave UV Light  
Top Ring Light

integrated non-vibrating vacuum pump



magnetic circular vacuum manipulation



steel body with adjustable incline



white and black jewellery grading plate



integrated computer



13.3 inch adjustable touchscreen



8mp industrial camera



usb connection



wifi and internet connection



saving videos & photos local/cloud



demonstrate gems and jewels  
over zoom, whatsapp



# LT4 GRADING LAMP

Have you ever considered the loss of time and money due to misgrading of a gemstone or a jewel because of lack of the correct light? LT4 Series grading lamps are designed especially for diamond, colored stone grading, and examination. LT Series illumination has been upgraded with LED Tubes. LED Tubes provide the same diffused light as fluorescence lamps, but with many upgrades such as high CRI, higher illumination, long life, no flickering, and no noise. Color Rendering Index is higher than fluorescence technology for better color grading. Other models are available online: LT2, LT3, FL2, FL3 & FL4.



There are 4 light tubes in LT4 lamps (but different types of lightbulbs available):

- 2 x White Illumination 6500K
- 1 x 5000K Daylight Illumination
- 1 x UV 365 nm tube

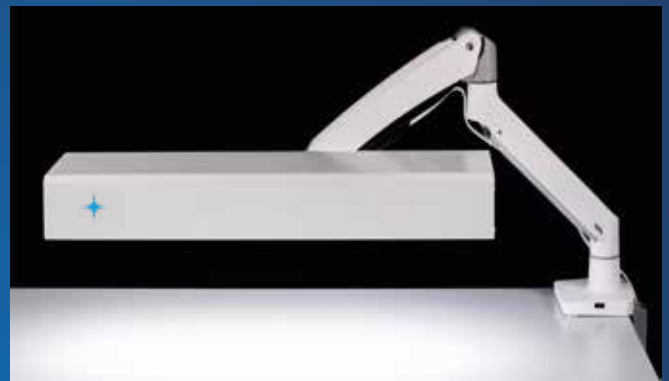
The LED tubes are flicker-free, don't produce heat and provide a lifespan of minimum 25.000 hours without losing their characteristics.

## Gas Spring Arm Positioning

For a grading lamp besides illumination, the manipulation of the lamp provides a comfortable working environment. LT Series Grading lamps are built on gas spring arms. Unlike mechanical springs and unnecessary long arms, we have created a design where we use gas spring arms. The arms are robust, so the lamp will not shake with any small movement. Manipulation on three joints provides the perfect positioning of the lamp. Arms can be mounted on a table edge or as a grommet.

## Illuminated Control Panel

On the side of the body, all three light sources can be triggered separately. Each switch is illuminated, white for 6500K lights, yellow for 5000K daylight, and blue for UV light. The lamp has rounded corners to avoid injuries and is light-weighted thanks to the aluminium body.



MORE  
INFORMATION ON  
OUR EQUIPMENT:

