



## **iE3000 Electronic Eyepiece # 8430**

### **Instruction Manual**

With the **iE3000 Electronic Eyepiece** now you can experience astro-video and astrophotography for yourself! The **iOptron Electronic Eyepiece** allows you to view real-time images from your telescope on a computer screen. The iOptron iE Electronic Eyepiece transmits live video images of the Moon, Sun, planets and terrestrial objects through a USB cable to your computer. Images can be recorded for later playback or frame imaging.

### Parts List

- iE3000 Electronic Eyepiece
- USB Cable
- 0.965 inch eyepiece adapter
- Camera driver and manual for download from iOptron website

### System Requirement

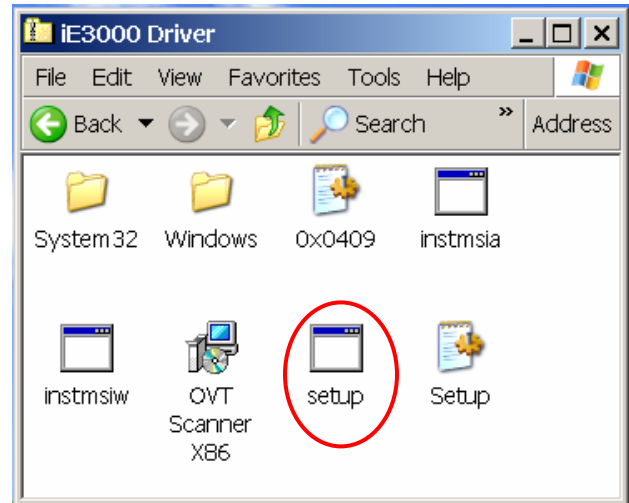
- 32 bit Windows 2000/XP/VISTA/7
- Pentium IV 1.4GHz or equivalent, or high
- 300 MB free hard drive space for program installation and image/movie saving
- 512 MB RAM (1.0 GB DDR RAM recommended)
- 16-bit color display at 1280x1024 (32 MB video memory with DirectX 3D support recommended)
- DirectX 9.0C or higher

### iE3000 Driver Installation:

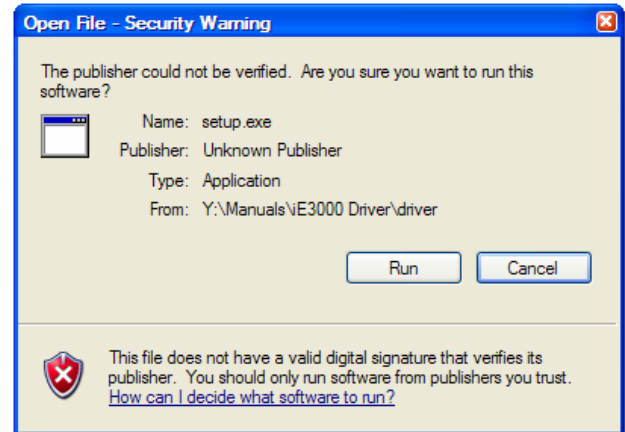
*Do not plug in the iE3000 electronic eyepiece before you have installed the driver.*

Download **iE3000 Driver.zip** from iOptron's website:  
[https://www.ioptron.com/manuals/iE3000\\_Driver.zip](https://www.ioptron.com/manuals/iE3000_Driver.zip)

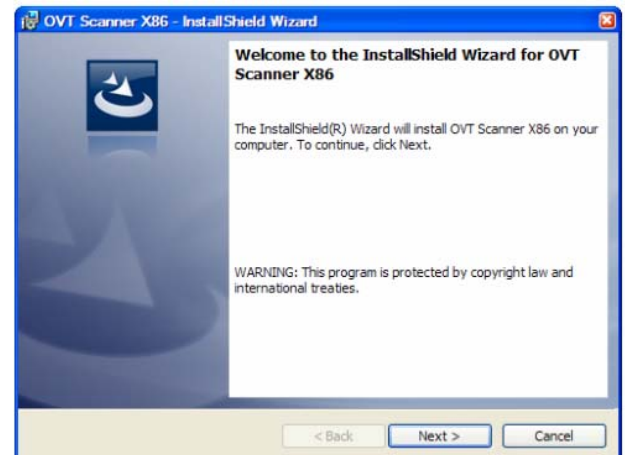
Open **iE3000 Driver.zip** file. Run **setup.exe**, by double click on it.



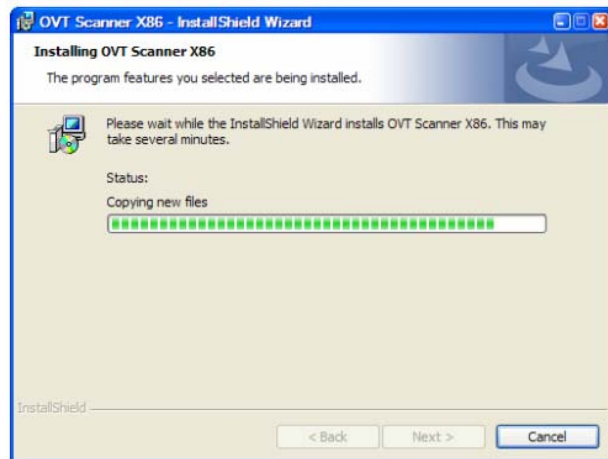
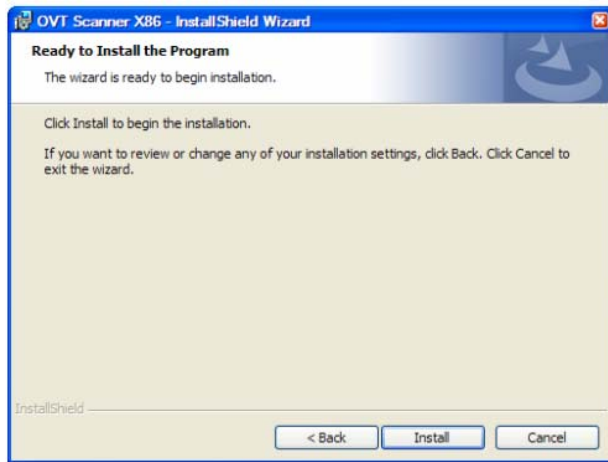
A Security Warning window will be shown, click on Run.



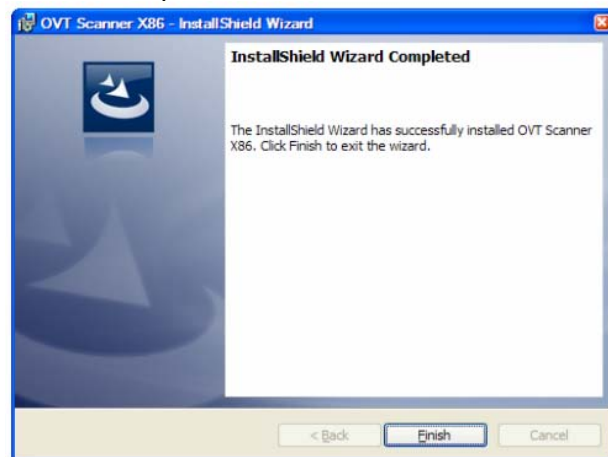
Click on Next when an InstallShield Wizard window displayed.



Click on Install to start install the camera driver (OVT Scanner X86).



Click on Finish when the InstallShield Wizard completed.



Next, plug each end of the USB cable into the iE3000 and your computer. Your computer will detect the electronic eyepiece as new hardware and start to install the driver.

Now the camera is ready for use after the driver is installed.

### Use the iE3000 to observe an object

The iE3000 can be used with almost any telescope that is compatible with 1.25" format eyepieces. The camera simply is inserted into a focuser in the same way as a standard eyepiece, with or without a diagonal if you use a star diagonal. If your telescope does not have enough inward focus travel, you will need to use an 1.25" Barlow lens (not included) to extend the telescope's focal plane to the camera's imaging plane. The camera can be also used for those telescopes using 1" eyepieces with supplied 0.965" adapter.

In order to bring an object to your computer monitor, an image/video capture program is needed. Most PCs come with preinstalled programs, such as Window Movie Maker, Arcsoft Webcam Companion, or other webcam program. If your PC does not have one installed, you may download one from the following website: VirtualDub 32-bit from [www.VirtualDub.org](http://www.VirtualDub.org) or Future Winjoe at [www.ioptron.com/future.rar](http://www.ioptron.com/future.rar).

Aim and focus your telescope to an observing target, such as Moon using regular eyepiece. Remove the eyepiece and insert the iE3000 camera into the telescope focuser. Slowly adjust the focuser knob to bring the image to focus. Use the capture function of the program to capture the image or movie.



## Specifications

Sensor Parameter	1/2" 3.0MP CMOS
Resolution	2048*1536
USB port	USB 2.0
Frame rate	7.5 fps @ 2048*1536
Resolution Model	2048*1536,1280×1024 ,1024×768
Pixel size	3.18μm*3.18μm
Sensitivity	1.0 V/lus-secx
S/N Ratio	40 dB
Dynamic Range	60 dB
Color Filter	RGB Bayer Pattern
White Balance	AUTO
USB Cable Length	1.5m
O/P compatibility ( <b>32bit system only</b> )	Win2k,WinXP,Vista and Windows 7

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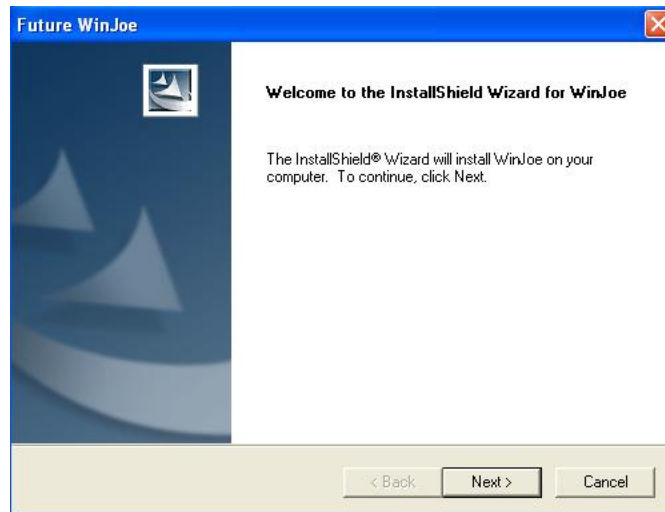
## Example: Using Future WinJoe For Image and Video Capture

### Install software of Future WinJoe

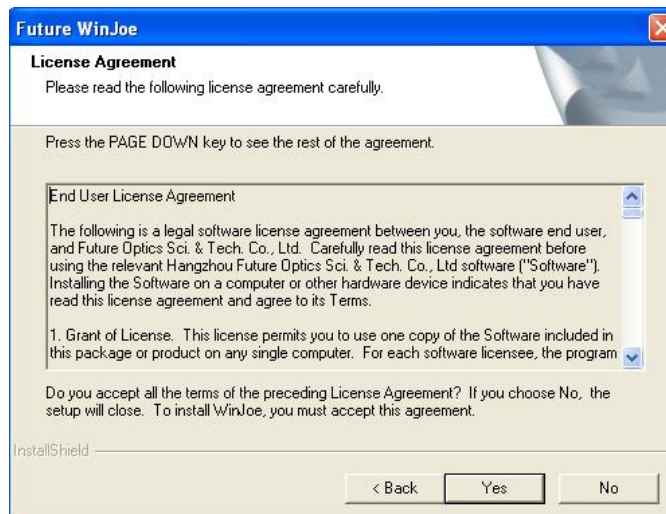
1. Download Future WinJoe from [www.ioptron.com/future.rar](http://www.ioptron.com/future.rar) and save on your desktop
2. Double click on “future.rar” to open the compressed file package and double click on “setup.exe” to start install the software
3. Select your language, then click “OK” to confirm



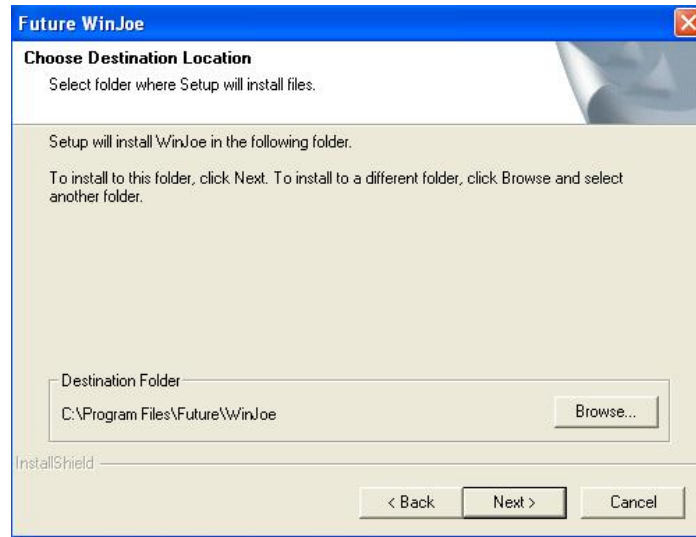
4. Click on Next when an InstallShield Wizard window displayed.



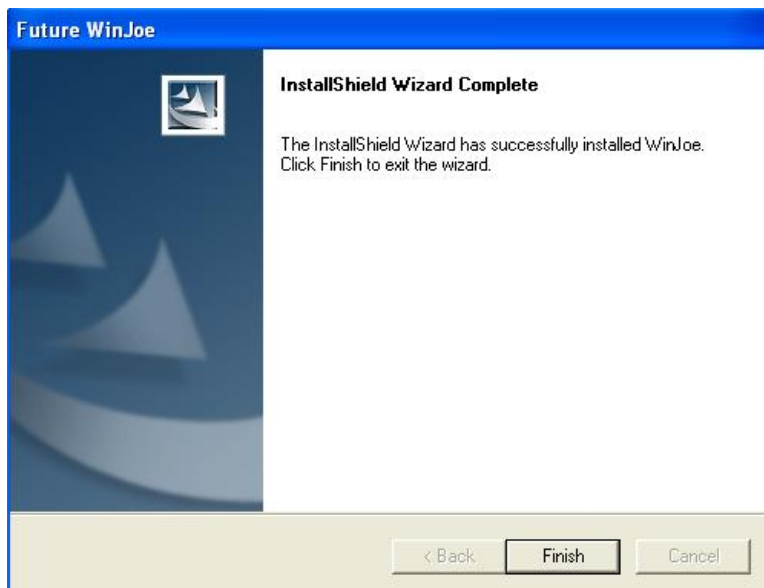
5. Click on “Yes” to accept the License Agreement.



6. Select the destination folder to install Future WinJoe. The default location is "C:\Program Files\FutureWinJoe". Click on "Next". You may change it to the destination folder you want by click on "Browse".



7. Click on "finish" to exit when InstallShield wizard has been completed.



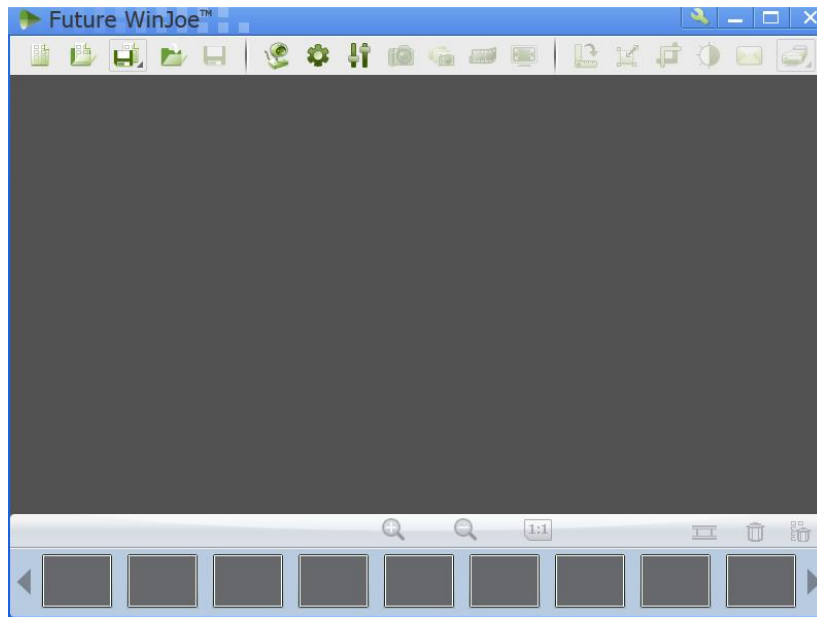
## Operation of Future WinJoe


1. Connect the iE3000 to the USB port,

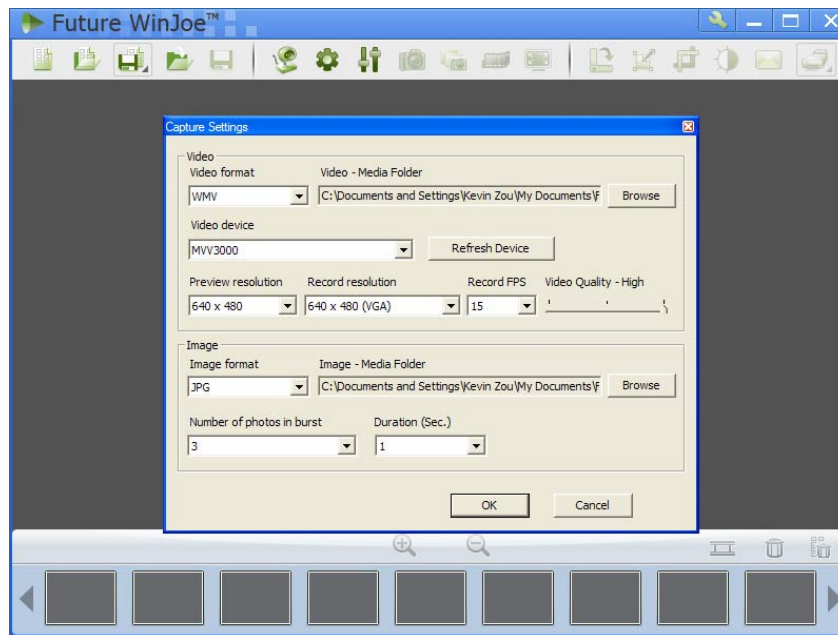



2. Double click on the Future WinJoe icon on desktop "Future WinJoe".

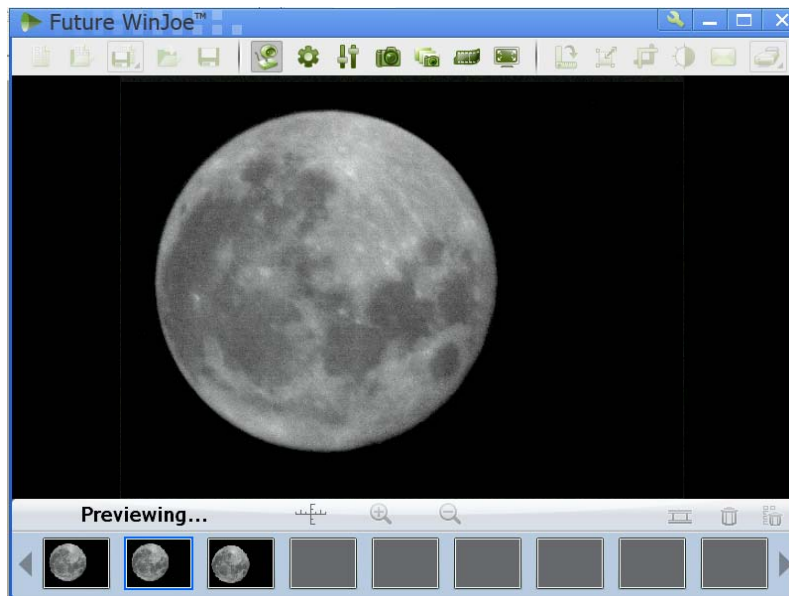
Or go to start→all programs→Future WinJoe. A preview window of Future WinJoe will be shown, with a large live image in the middle and captured image thumbnails at the bottom.










3. Click on “” to bring up the “Capture Settings” menu to select a camera, if your computer equipped more than one. In this case, select “MVV3000”. You can select where to store the captured videos and images. You may also change other settings in this menu. Click “OK” when done.



4. Click on “” to connect the camera. An image (probably an unfocused one in most time) will be displayed. Adjust the focusing-knob to bring the image to focus.



5. Click on " " to set the attributes of images shown, such as brightness and contrast.
6. Click on " " to capture a photo.
7. Click on the image thumbnails to view the quality of the image. Click on " " or " " to adjust the settings if needed. Click on " " to connect the camera again and take more pictures if desired.
8. Click on " " to start video capturing, and click it again to stop.
9. For more detailed software functions, please click on " " or "F1"