
S02-500X Digital Microscope User Manual

([English](#))

([中文](#))

前 言

首先非常感謝貴司（您）購買了**S02-500X**數碼顯微鏡
數碼顯微鏡應用範圍非常廣泛,主要有以下方面.

1工業方面:

- a 工業檢視, 例如電路板、精密機械等
- b 印刷檢視, SMT焊接檢查
- c 紡織檢視
- d IC表面檢查
-

2美容方面

- a皮膚檢視
- b發根檢視
- C紅外理療（特定產品）
-

3生物應用

- a微生物觀察
- b動物切片觀察
-

4其他

- a擴視器, 協助視障人士閱讀
- b寶石鑒定
-

S02-500X數碼顯微鏡使用簡單, 只需要同電腦**USB**接口連接就可以使用, 本產品還配備測量軟體, 可做簡單的量測, 非常的方便。爲了更詳細的介紹本產品, 敬請耐心的閱讀產下麵的產品介紹, 使用方法, 注意事項。

目 錄

首頁	1
前言	2
目錄	3
各部位介紹	4
產品規格	4
安全警告及注意事項	5
配件說明	6
安裝說明	6
硬體需求	6
驅動的安裝說明	7
量測軟體安裝與使用說明	14
1到2倍检测说明	28

部位說明規格



- ① 燈罩 ② 鏡頭 ③調焦範圍 1X~500X ④ 調焦滾輪
⑤ SNAP和Zoom 按鍵 ⑥ 產品主體 ⑦ USB線

規格：

傳 感 器： 高性能感光芯片

主控芯片： 專用主控16Bit DSP

放大倍率： 1X ~ 500X

拍照/錄影： 內置

輔助光源： 8顆白光LED燈

靜態解析度： 320*240, 640*480, 800*600,1280*960, 1600*1200

數碼變焦： 5段式

成像距離： 手動調節0~40mm

影像解析度： 標準640*480

固定底座： 升降底座

支持系統： WIN XP/VISTA; WIN 7, WIN 8, WIN 10

電 源： USB (5V DC)

電腦界面： USB 2.0 & USB 1.1 相容

動態幀數： 30f/s Under 600 LUX Brightness

照度範圍： 0 ~ 30000LUX線控可調

硬體需求： 奔騰 主頻700M Hz或以上; 1G硬碟 CD ROM 光碟機;
64MB 內存

支持語言: 中文(簡體), 中文(繁體), 英文(其他語言需要定制)

產品顏色: 磨砂黑色, 其他顏色可定制

主體尺寸 112 mm (長) 33 mm (外徑)

單機包裝重量 320g

安全警告及注意事項

1. 勿自行拆解本產品，以避免靜電擊穿精密晶片。
2. 勿用酒精等有機溶劑清潔產品。
3. 勿用手指觸摸鏡頭，以免表面造成刮痕和臟污。
4. 戶外使用時應避免高溫和高濕環境中，防電子器件短路。
本產品不具有防水功能，請應避免淋雨和進水。
5. 本產品的使用和存儲溫度範圍：0°C ~ 40°C，相對濕度：45%RH ~ 85%RH
6. 若不慎使異物或水份/液體 進入數產品內部，請先拔除USB 線。並送至維修中心檢修，切勿自行處理。

7 设备測量精度僅供參照，由測量误差引起的糾紛与本產品無關。

配件說明


1. 數碼顯微鏡主體（1台）
2. 校正尺 (1个)
3. 升降底座（1个）

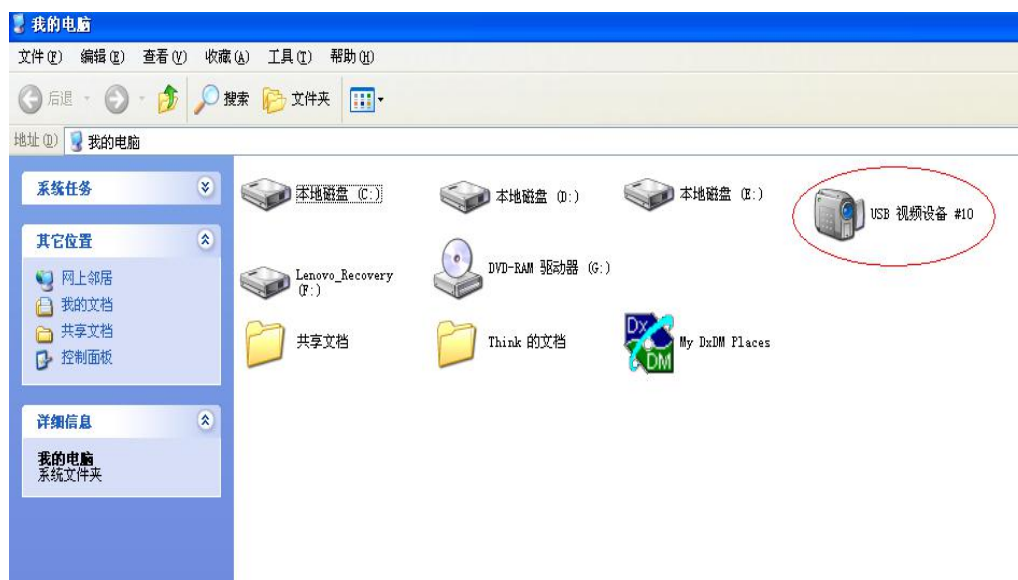
硬體要求

Windows 2000、XP、VISTA、WIN 7 操作系統。奔騰 IV 1.5G, Celeron, AMD 或以上的CPU。64MB 內存。150MB 以上之硬盤空間(安裝驅動程式及應用軟體) 支援16-bit的顯示卡, CD-ROM 光機, USB2.0 或USB1.1

安裝說明

S02數碼顯微鏡為無驅動產品，如果不需要一些特殊操作的話，在 Windows XP系統可直接運行。


1直接將本產品同過USB線連接到電腦上，然後點擊

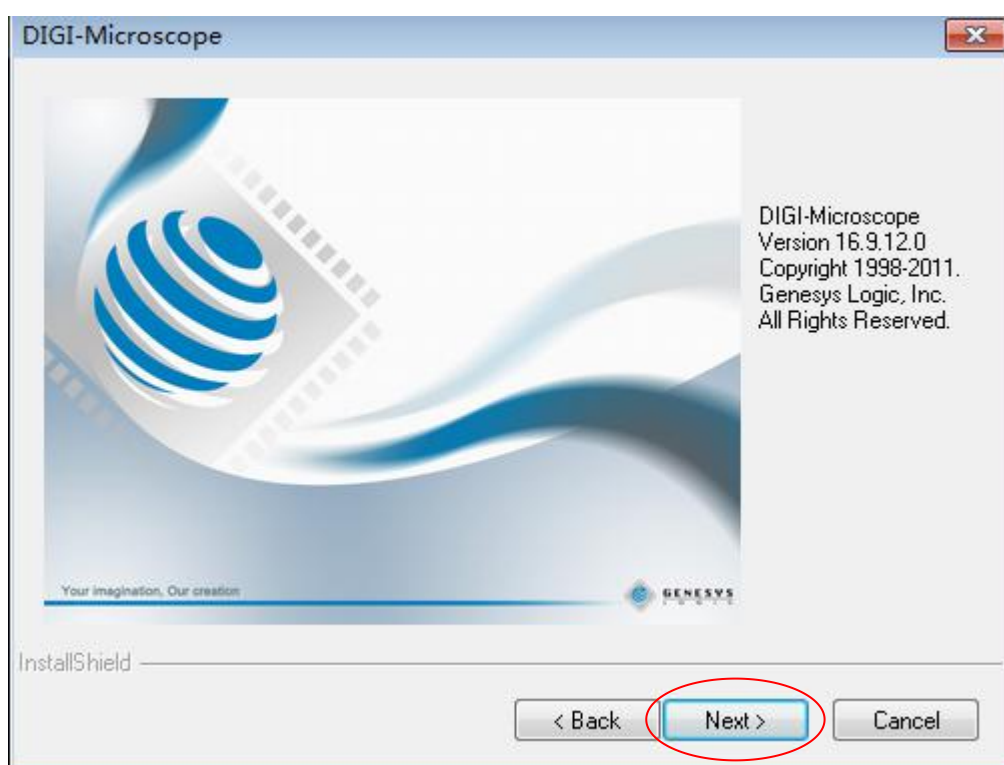


2雙擊紅色標示內的設備圖標就可以正常使用。

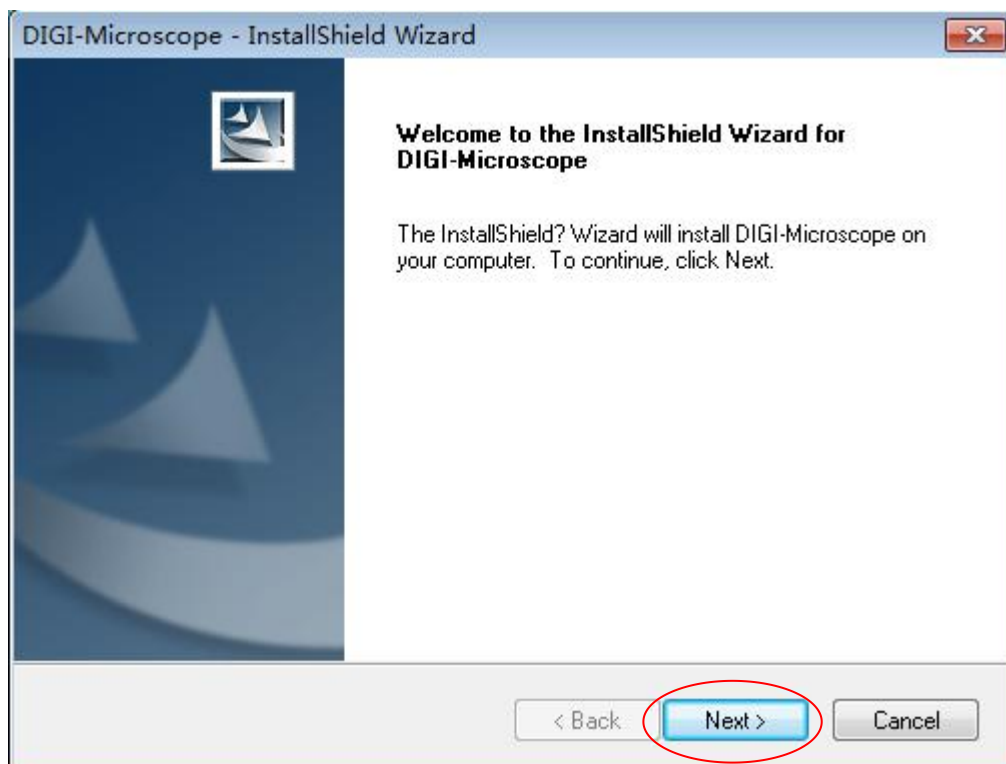
如需要特殊的操作，請參以下安裝步驟，进行安装

1 驅動安裝

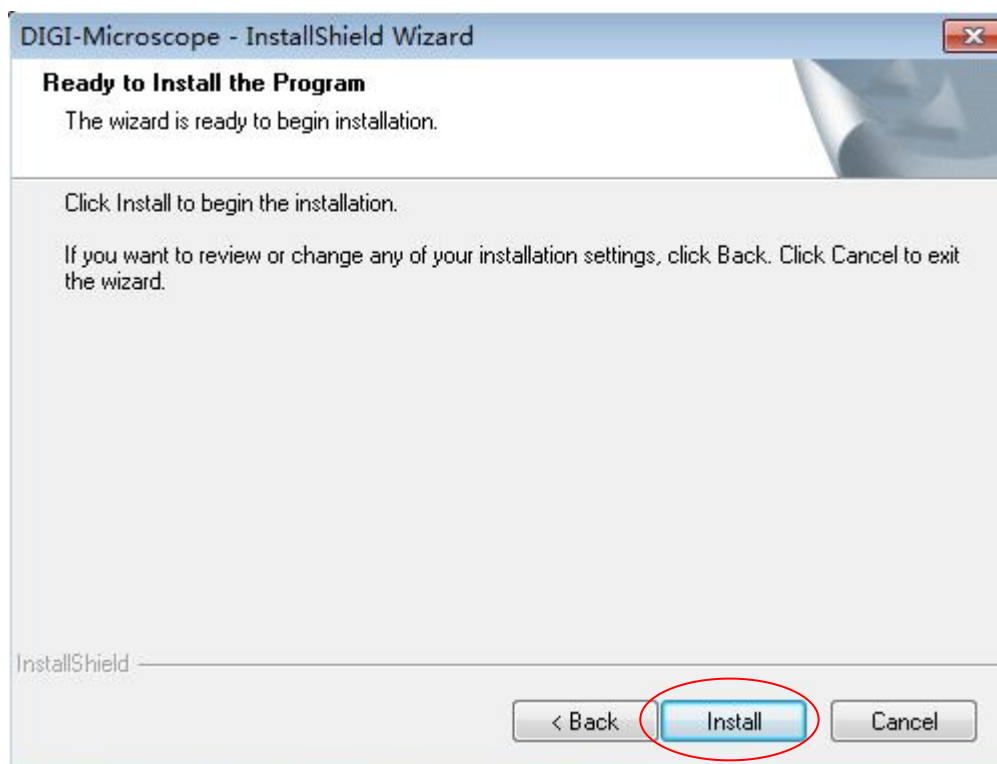
- 1 在电脑浏览器网址栏输入链接：www.indmu.com/hot/2.rar，
下载好后，解压文件
- 2 把产品先连接电脑，然后再双击安装驱动  Drive Setup
Driver Stupe.exe



单击“Next”按钮



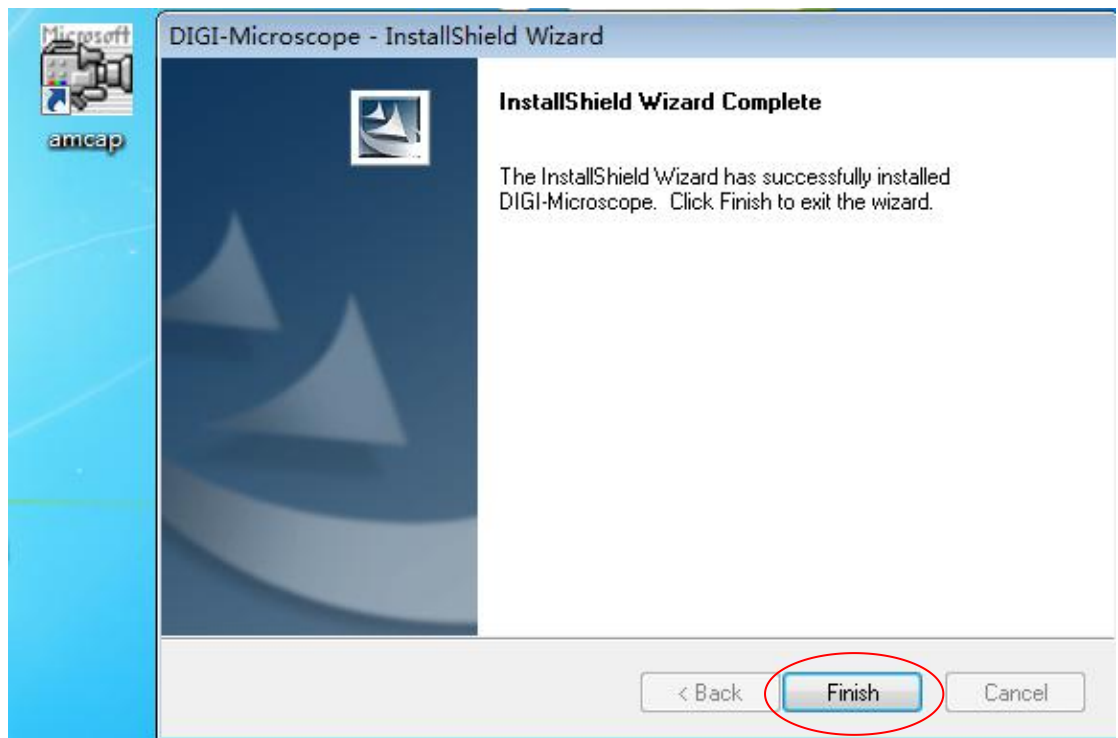
单击“Next”按钮



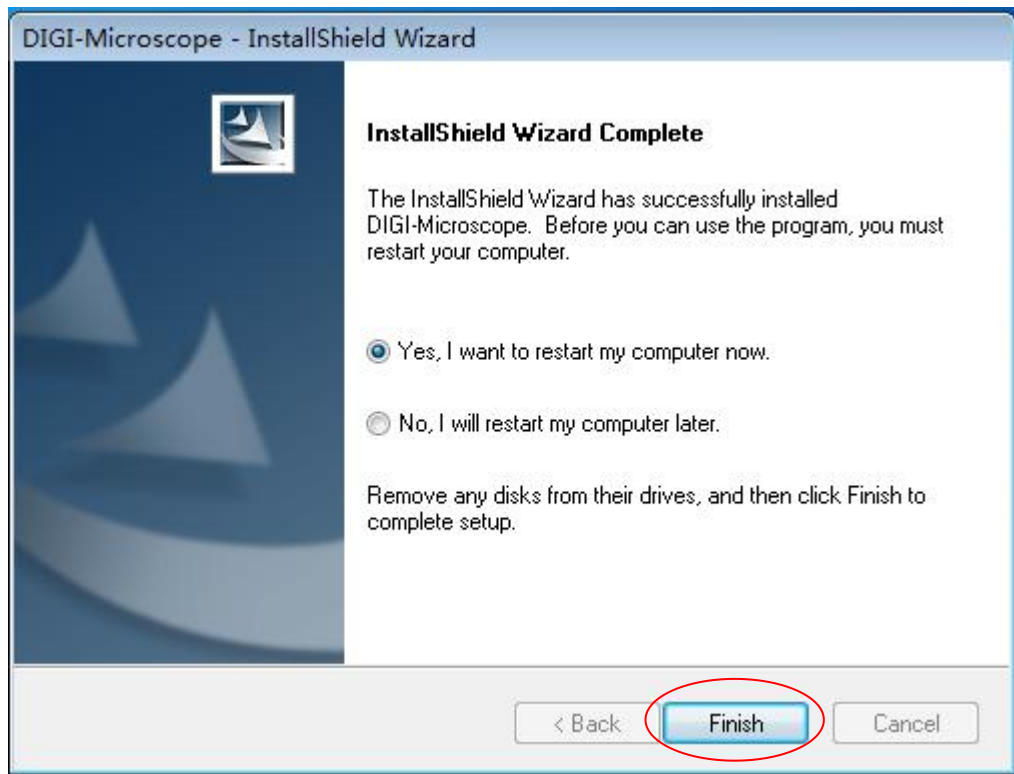
单击“Install”按钮



单击“是”




单击“Finish”

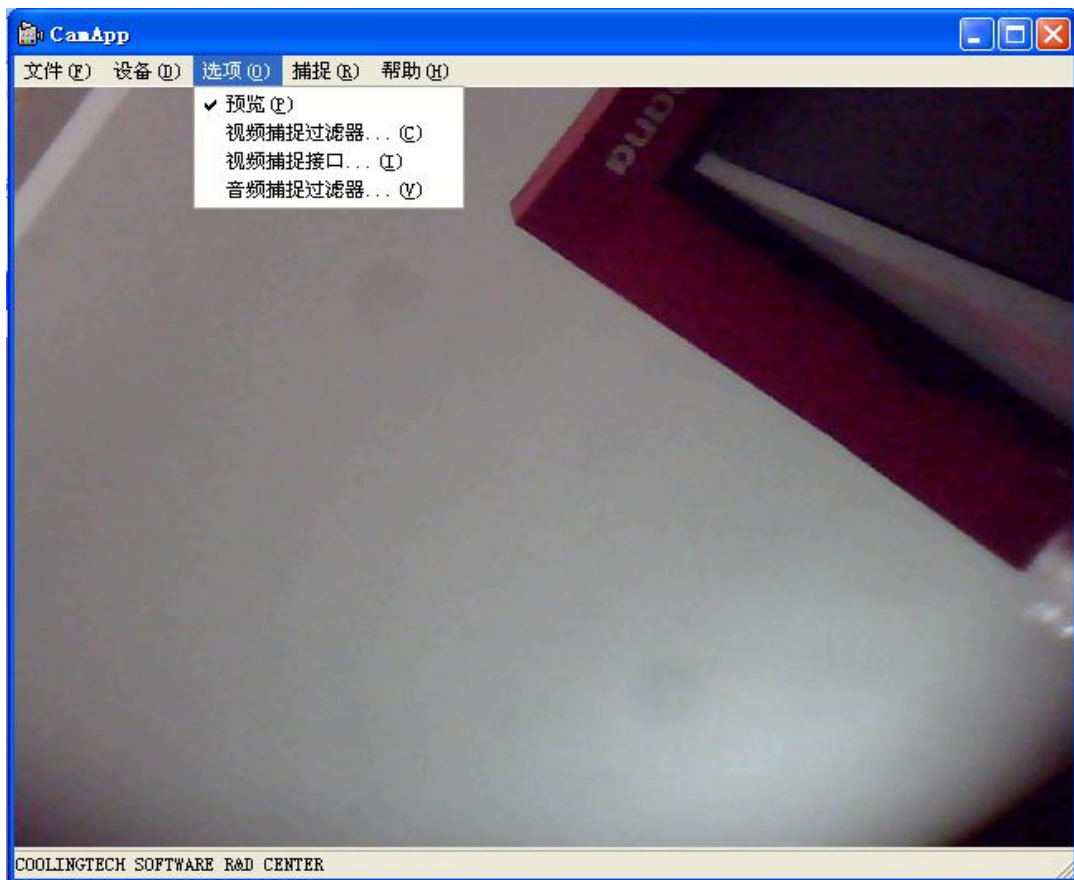


4,选择“**Yes,I want to restart my computer now**”再单击“**Finish**”，驅動安裝完成，会自动重启电脑，若在驅動安裝過程中出現警告資訊，請直接点击“**仍然繼續**”即可

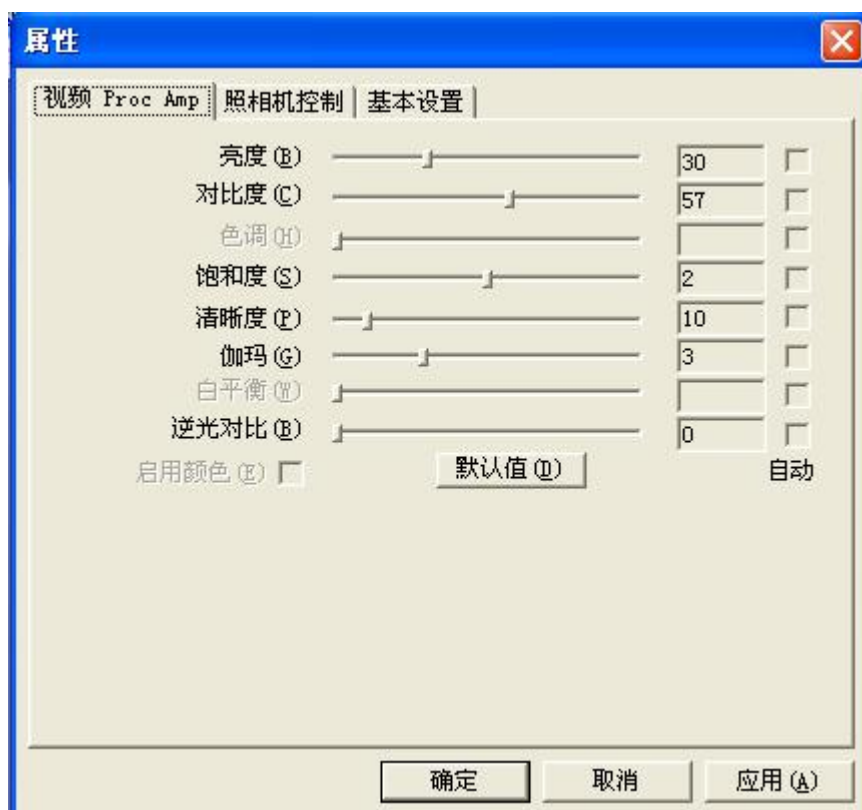
5.在安裝驅動時如提示需要安裝Net Framework 2.0**，請**

雙擊dotnetfx  dotnetfx **按照提示，繼續安裝下去就可以**

6,驅動安裝完成後，桌面上會出現如下圖標 ，雙擊顯示



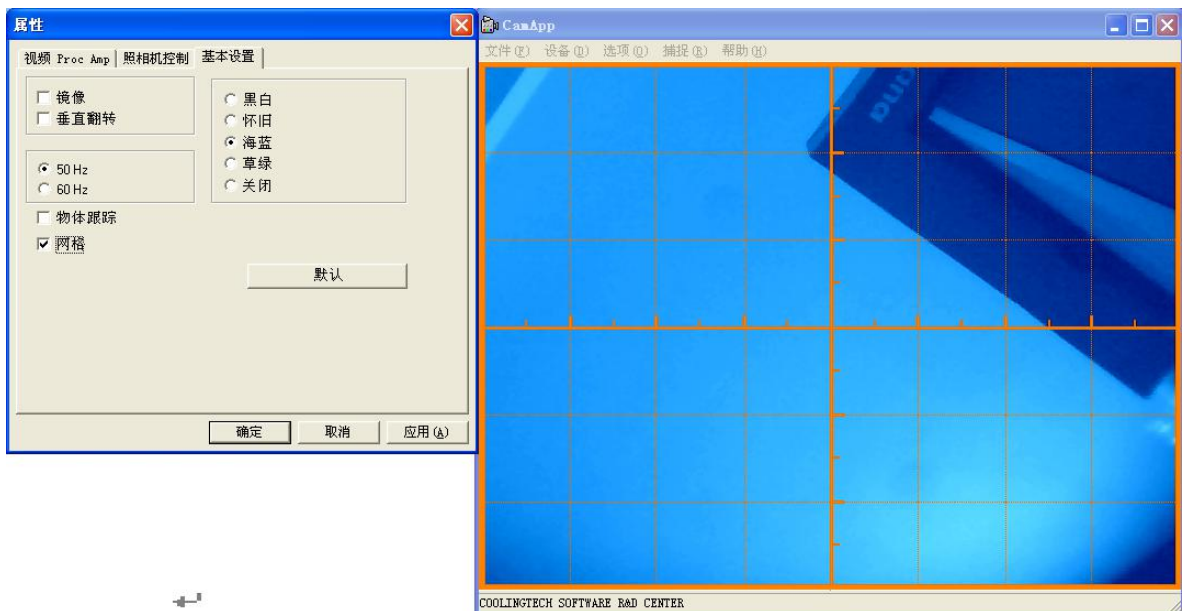
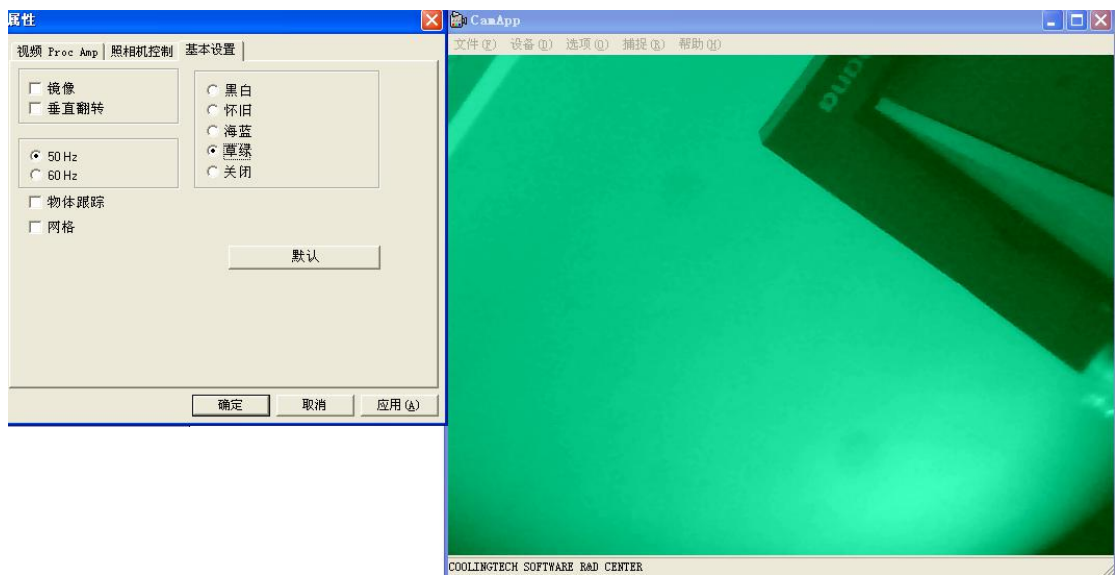
7. 菜單欄中的選項可根據自己的需求設定，例如點擊“選項”—“視頻捕捉篩檢程式”，出現



顯微鏡光學參數做些簡單的設置。點擊“基本設置”，出現：



根據需求，可對對圖形特效處理，如下



如需要回復到初始參數，請點擊“默認”。

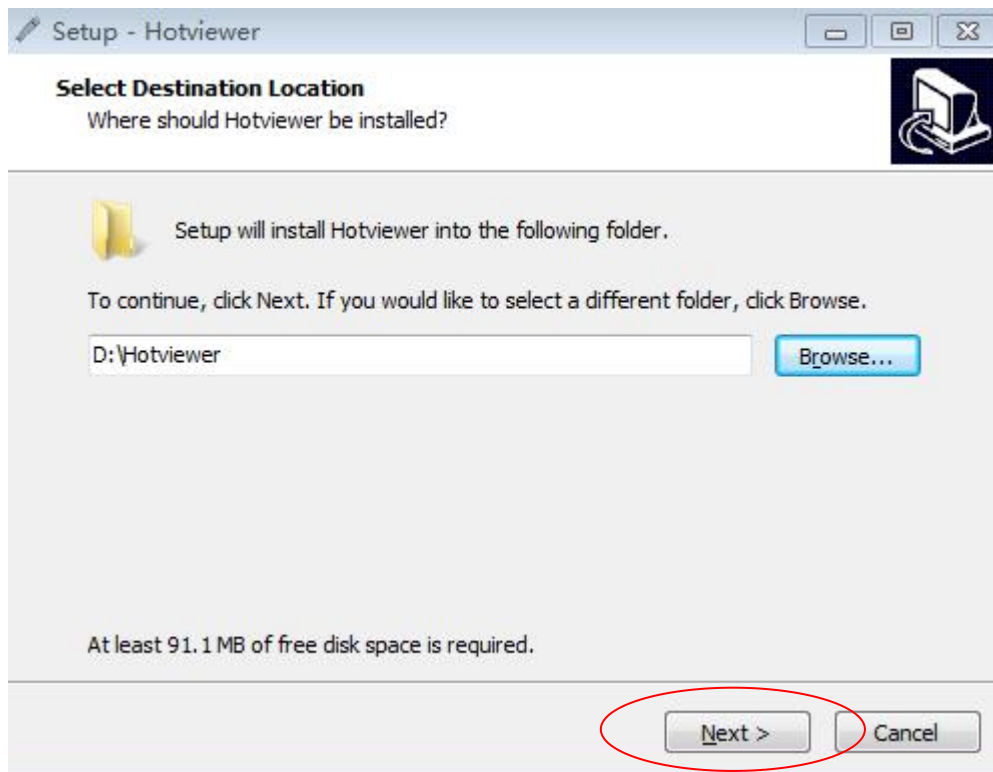
2測量軟體安裝Windows(PC) (Win7为例)

温馨提示：安装测量软件时，请先退出杀毒软件再安装，因为杀毒软件会阻碍与破坏软件的安装进程，会造成安装错误及安装不成功等异常状况。

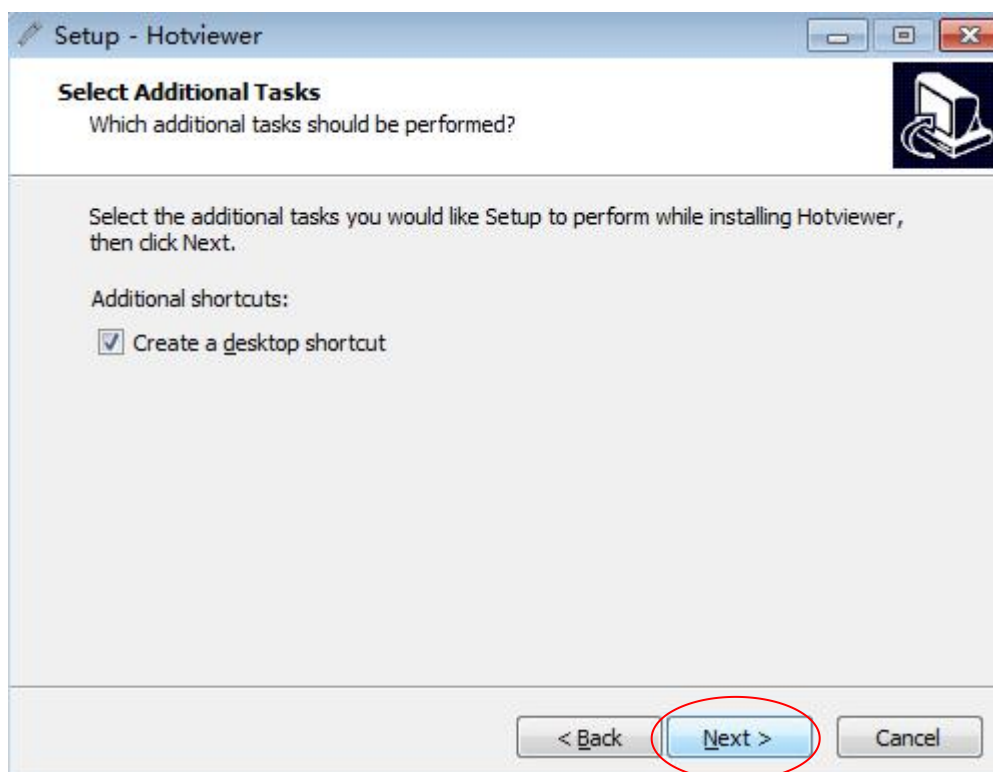
1. 在电脑浏览器网址栏输入链接：www.indmu.com/hot/2.rar，下载好后解压文件，然后双击安装软件Hotviewer.exe



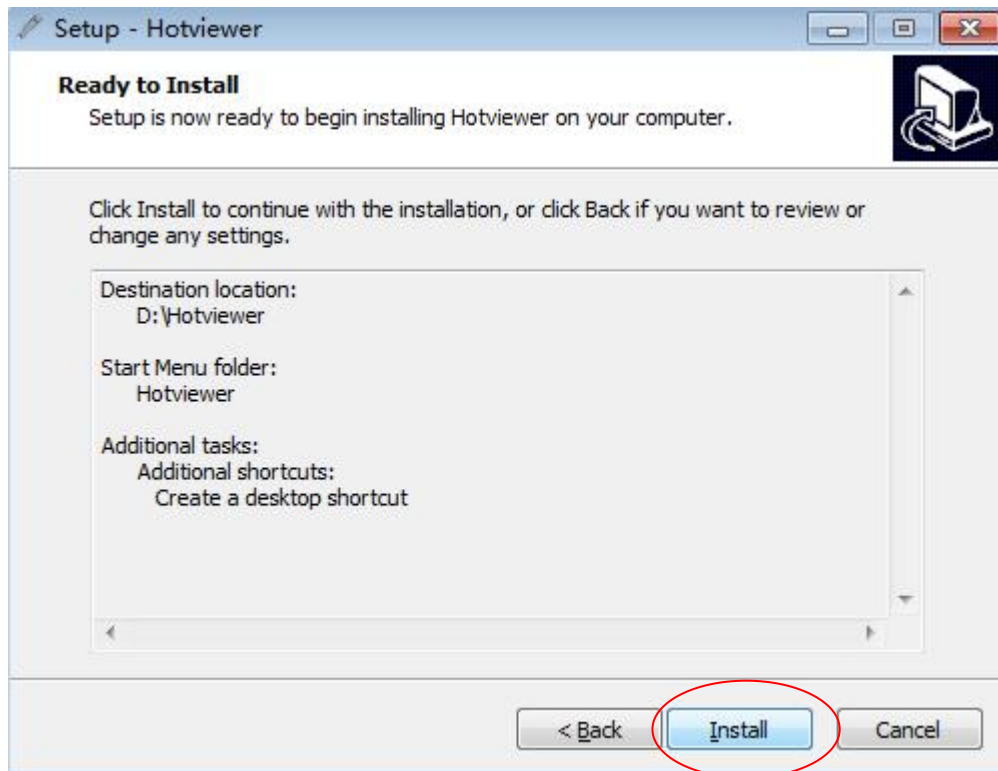
点击“OK”



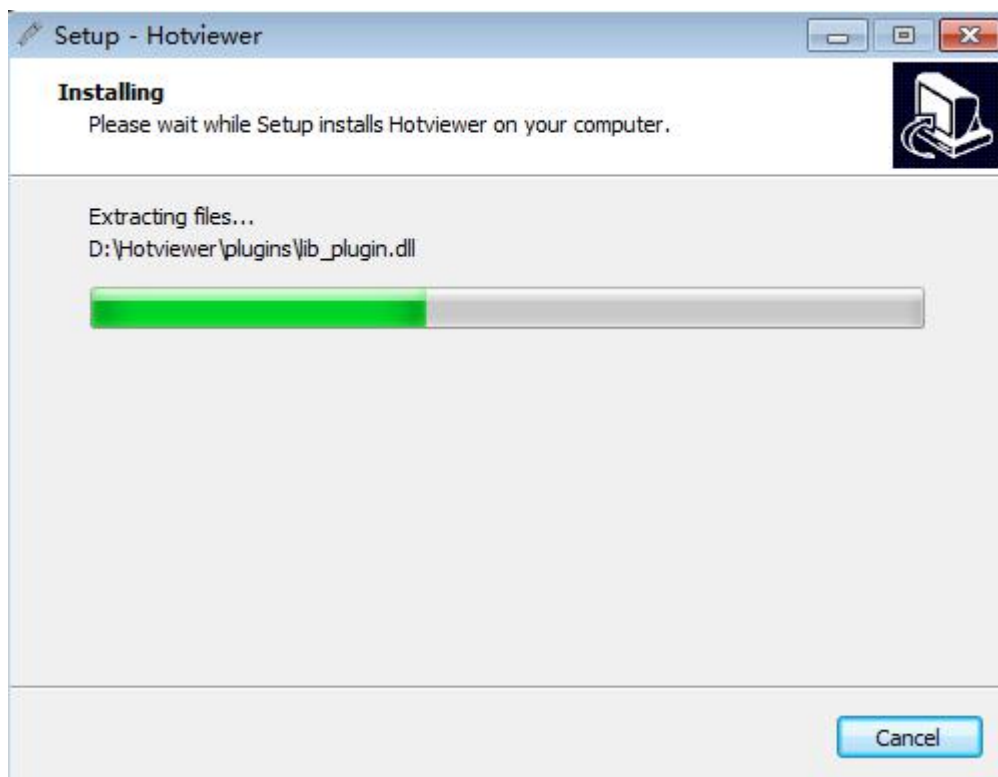
点击“Next”



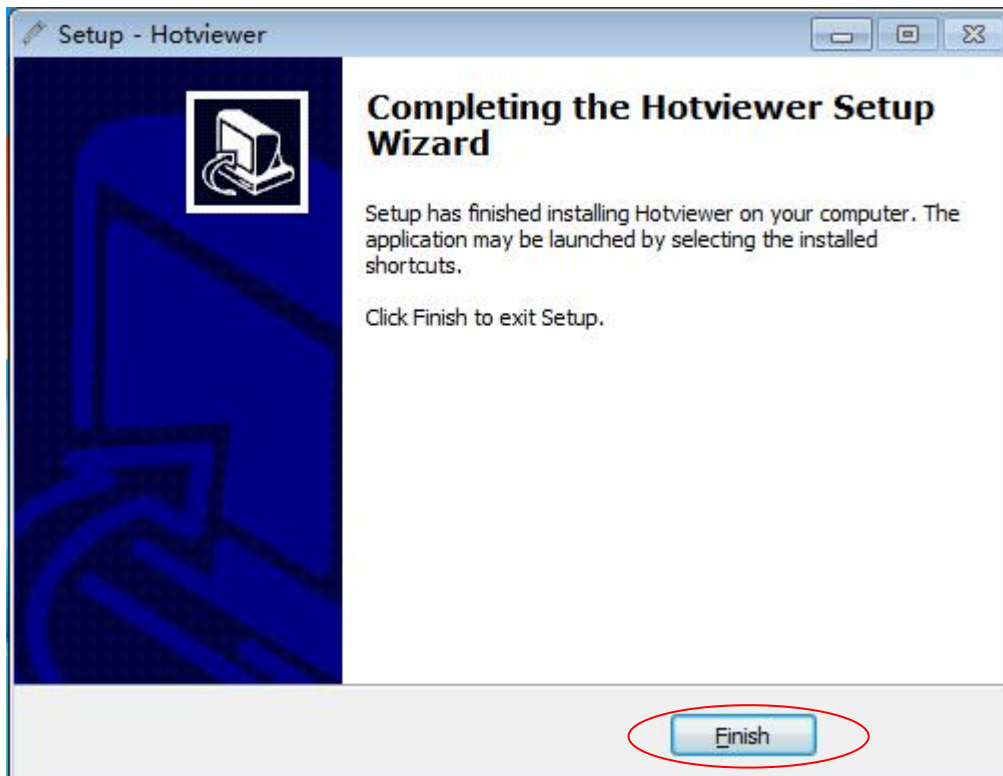
点击“Next”



点击“Install”



等待安装进度完成



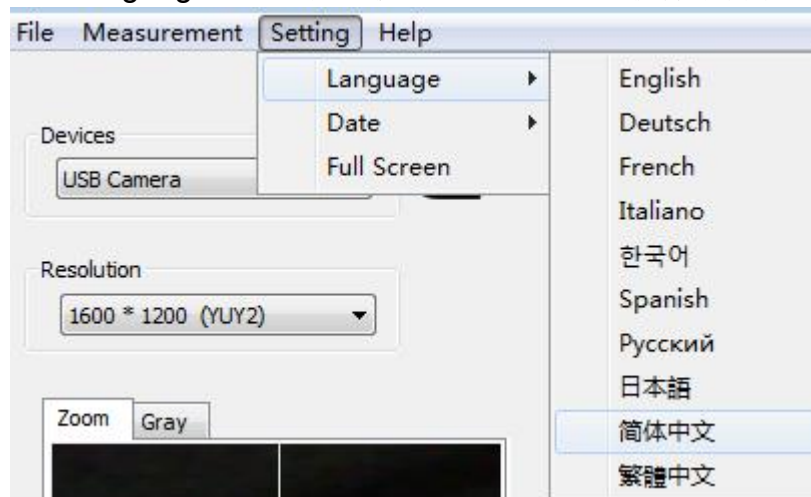
点击“Finish”软件安装完成

2. 当显微镜通过USB电缆连接到计算机，

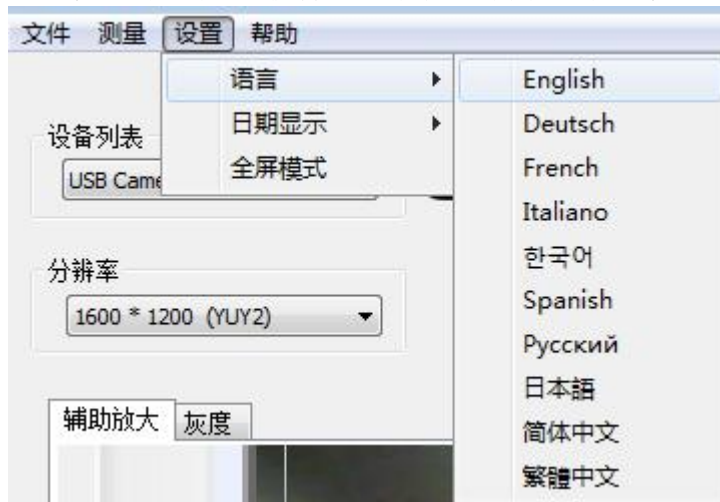


，你可以双击电脑桌面上的图标，打开应用程序界面，进行预览。

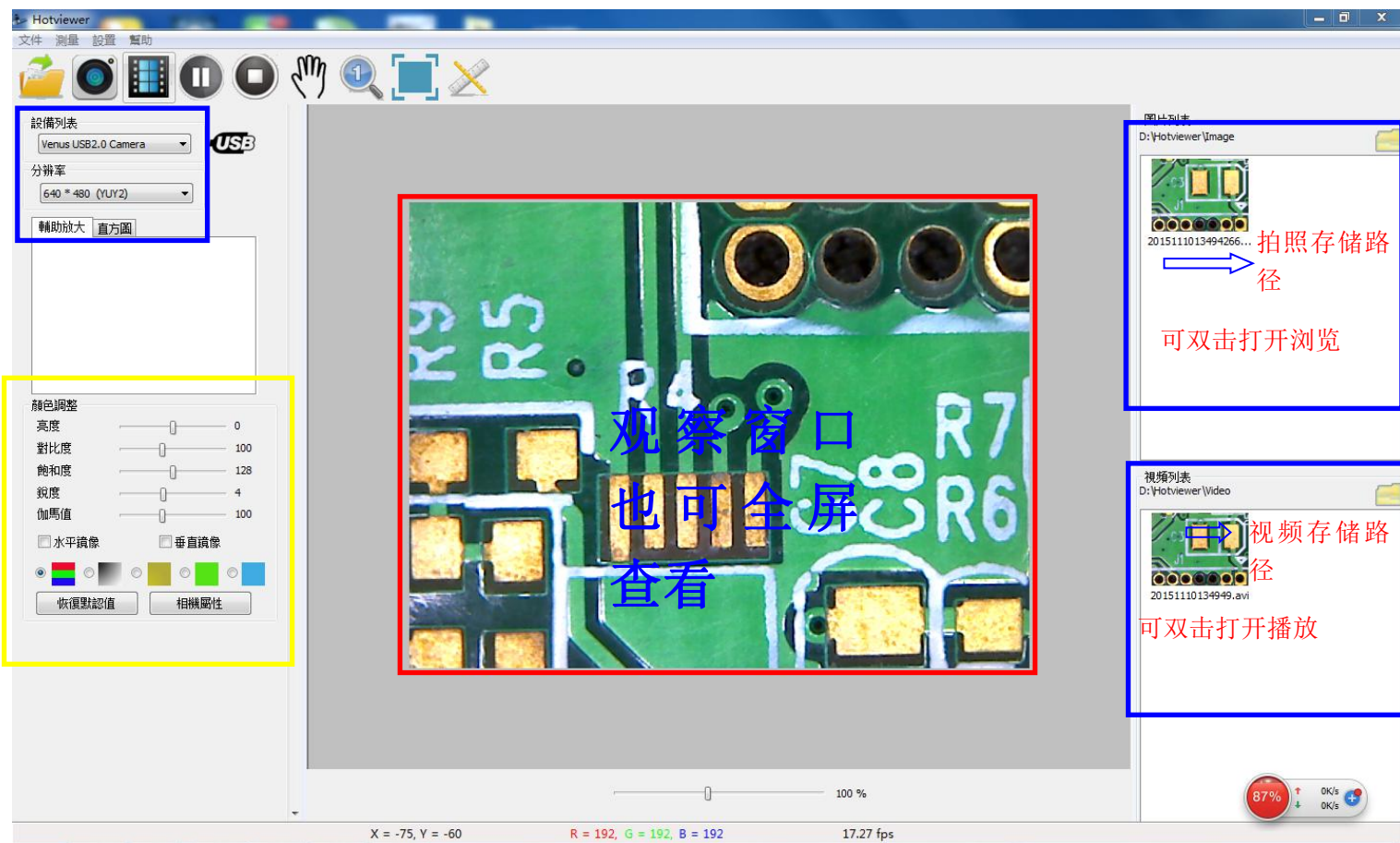
软件语言默认安装为英文，如需切换成中文，可点击下方菜单栏“Setting” - “Language”选择需要使用的语言，可在软件中自动切换



选择简体中文后，软件语言从英文自动切换成简体中文



以下为软件界面分部图



3. 界面介绍

1. 工具栏

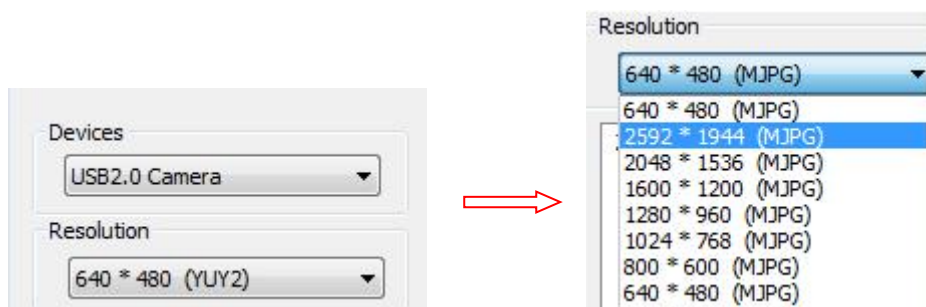


打开图片 拍照 录像 播放/暂停 停止

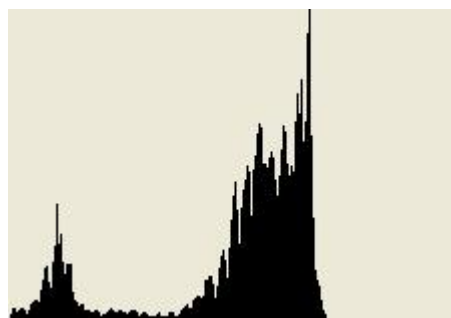


移动 初始比例 全屏模式 测量功能

2. 设备



数码变焦



灰度等级

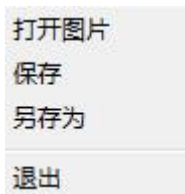


您可以设置参数，如果您想要恢复到出厂状态，请点击“默认”。

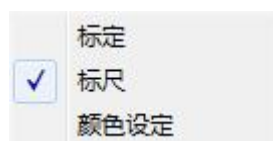
3. 目录



文件

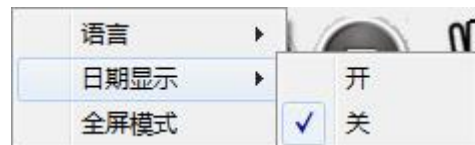


测量

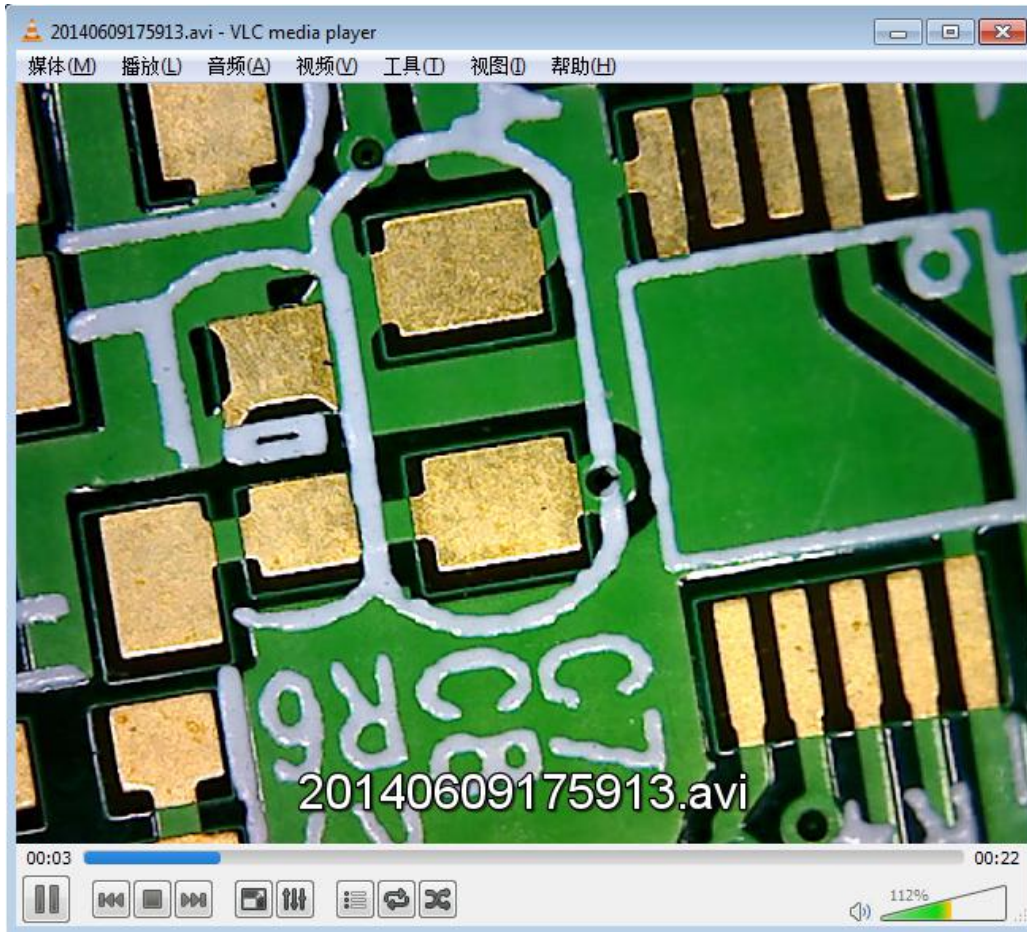
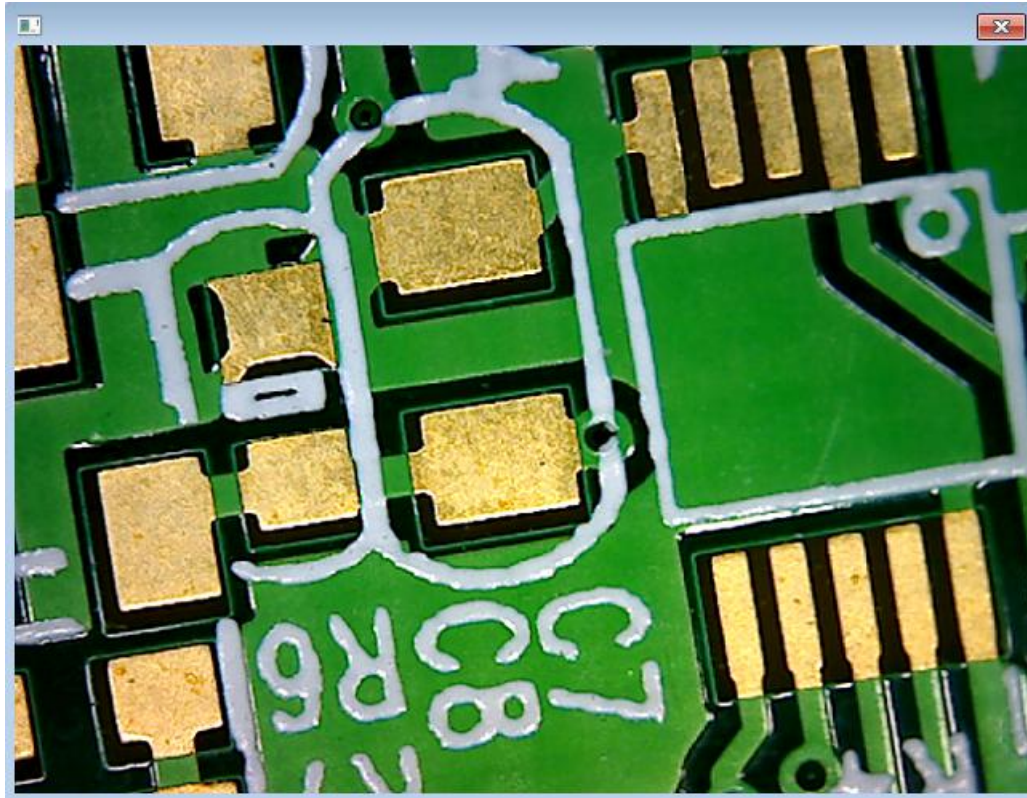


点击菜单打开测量和校正接口

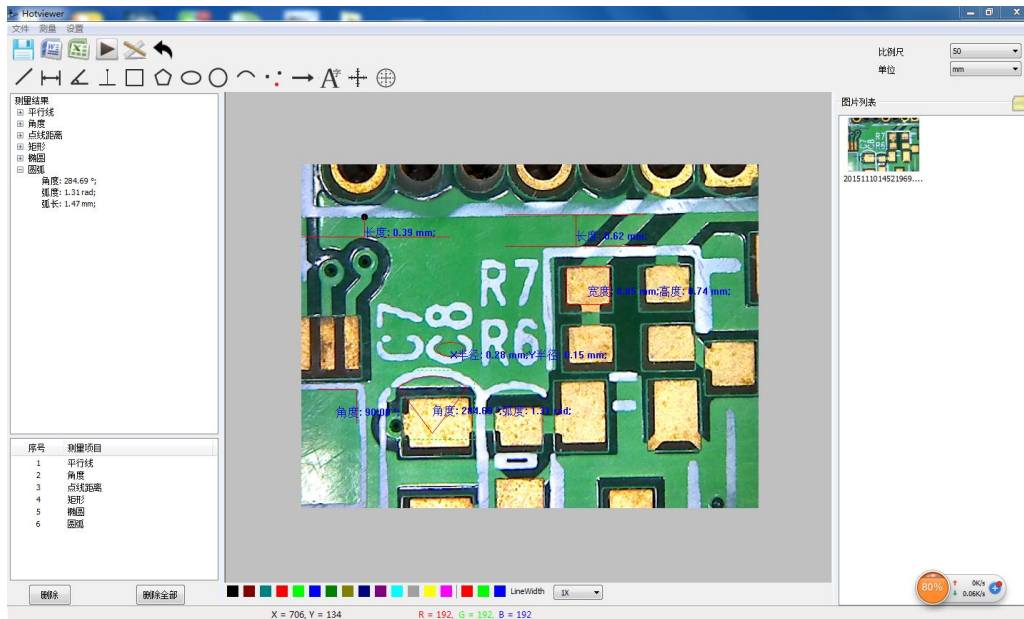
设置



4. 照片和视频（双击文件并打开它）



5. 测量界面



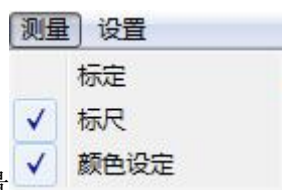
6. 工具栏



7. 测量功能

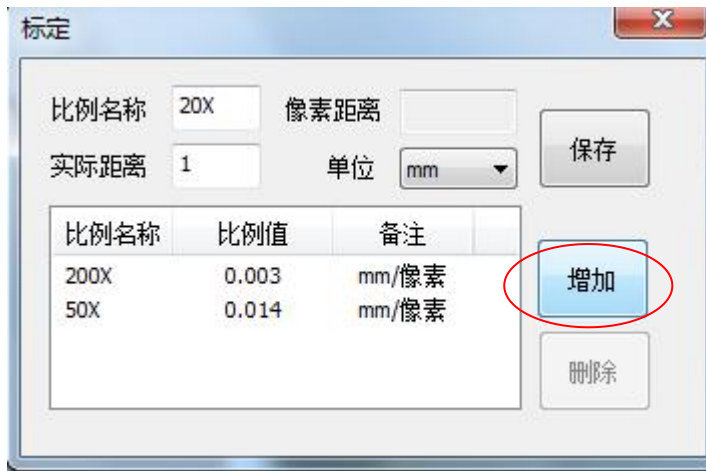
(1) 刻度

测量前, 请做好校准, 以确保一定的准确度。我们的实验结果告诉我们, 测量精度可以被控制至高达99%。人眼变形或散焦可能导致测量耐受性。多加练习对测量时有帮助。

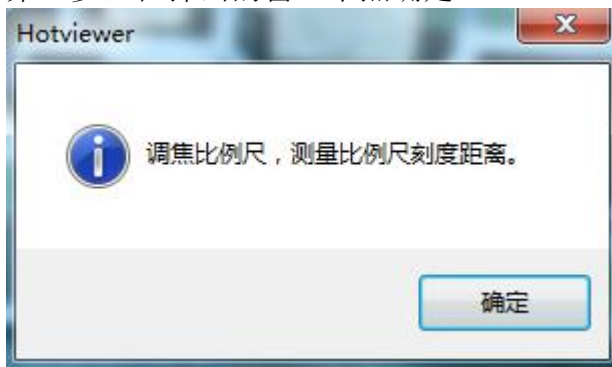


第一步, 点击测量, 选择' 标定' 输入比例名称 (自定义

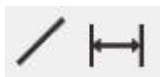
输入，比如20X)，输入实际距离（用配送的校正尺或自己用游标卡尺，直尺等测量实物的准确大小，案例中我测到的实物大小是1mm，我就输入1，单位选择mm），然后点“增加”



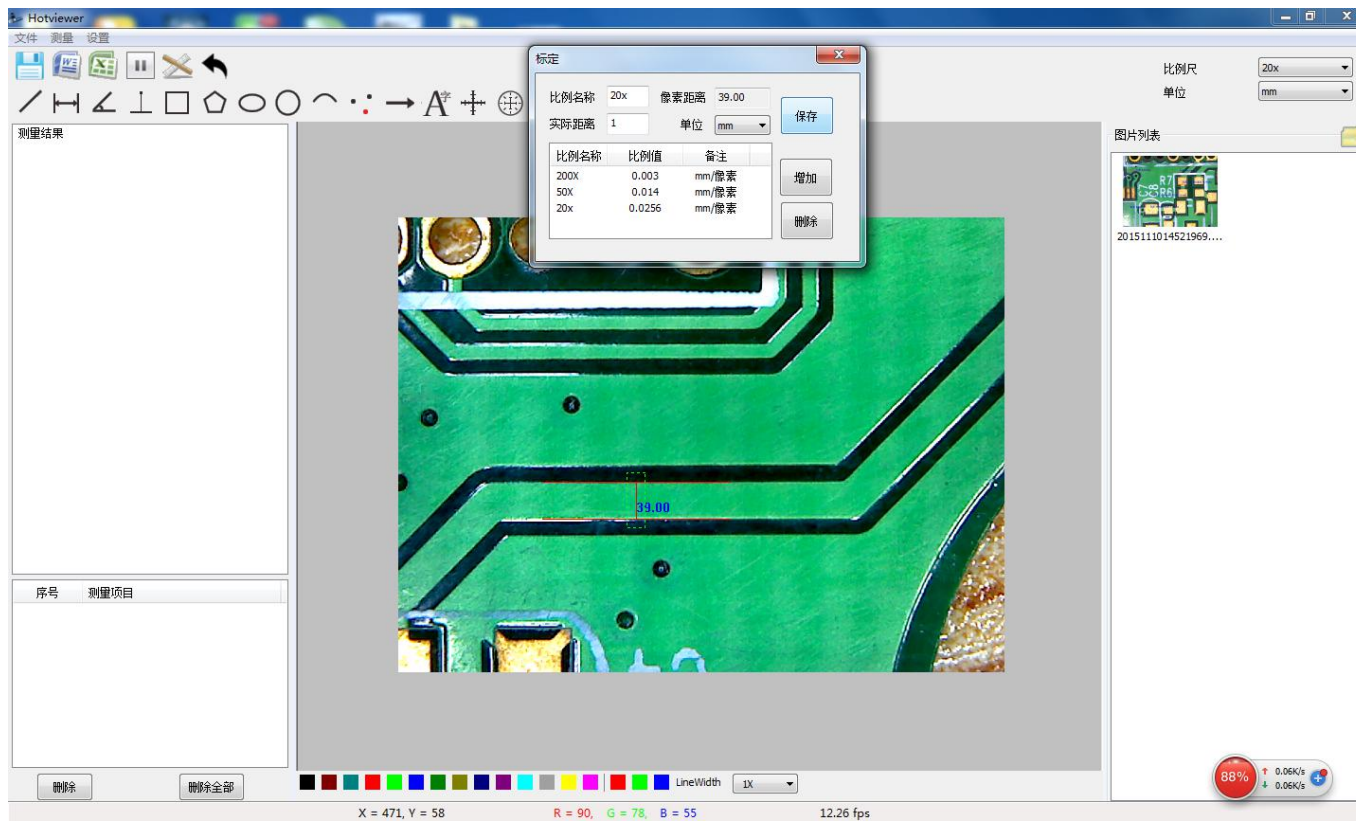
第二步，在弹出的窗口中点确定



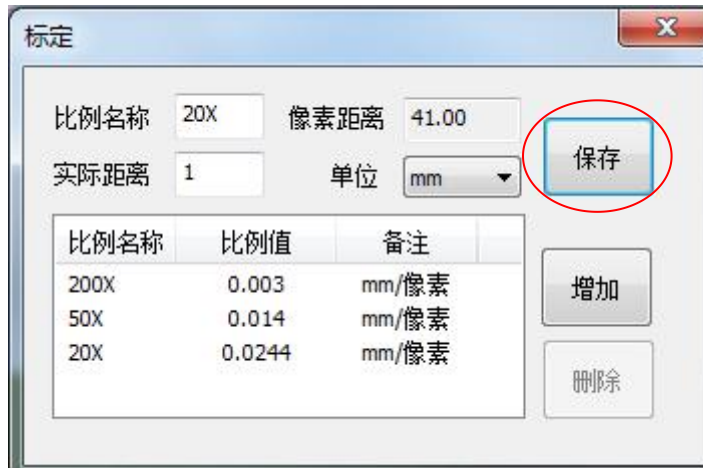
然后点击工具栏图标中的



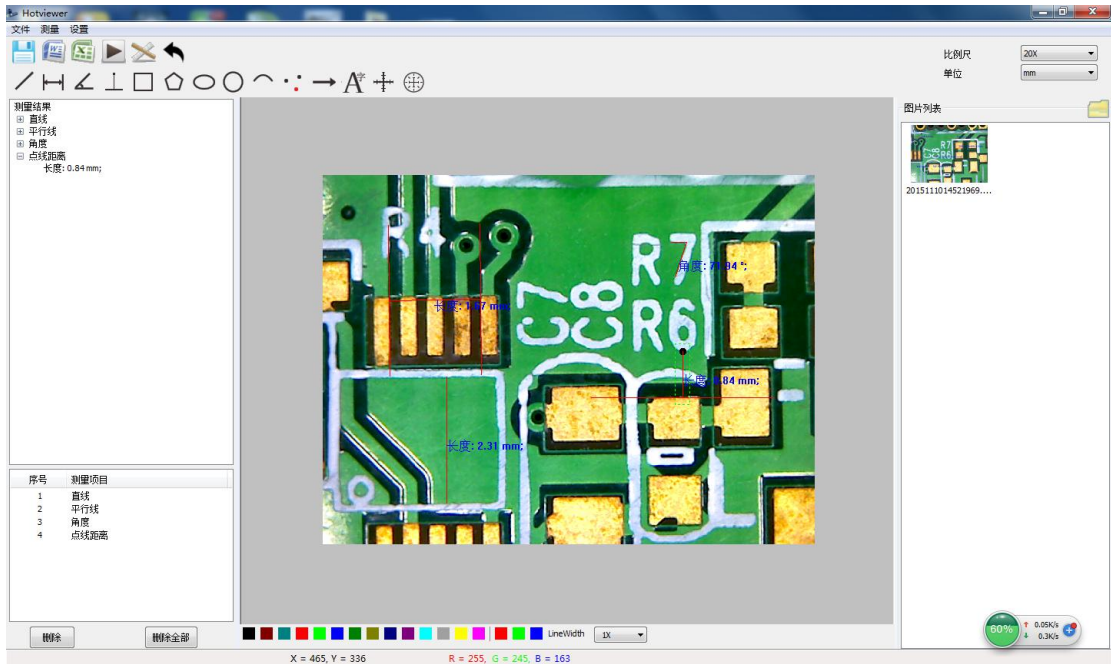
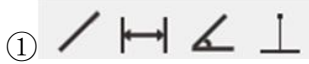
直线或平行线，测量实物大小的部分，如下图所示



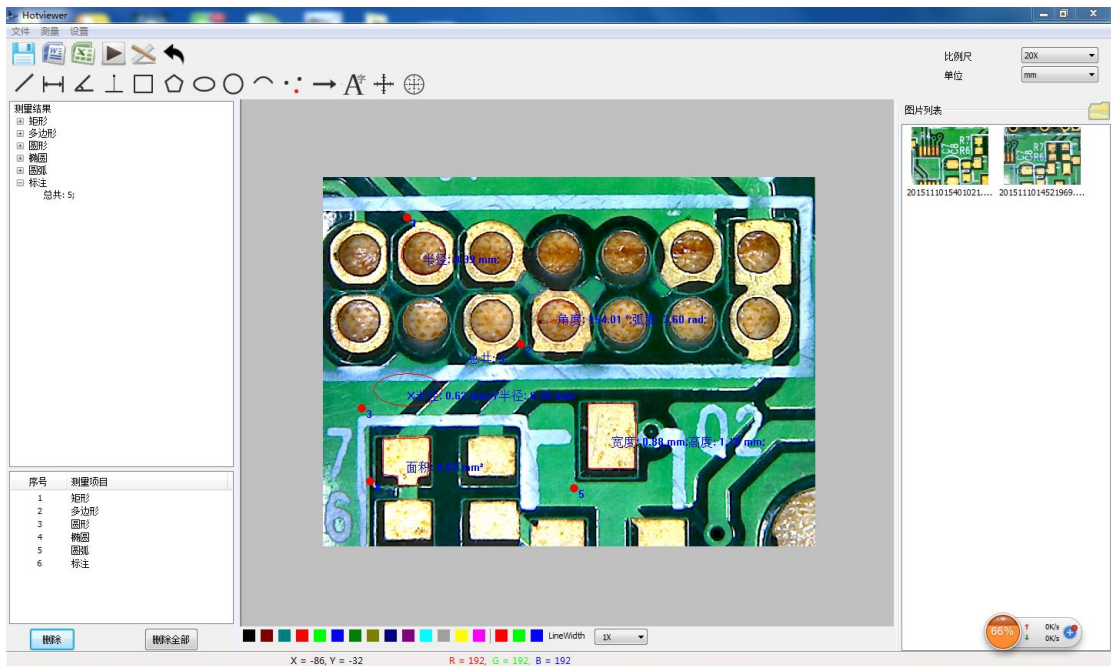
第三步，记录关键信息，并将其保存



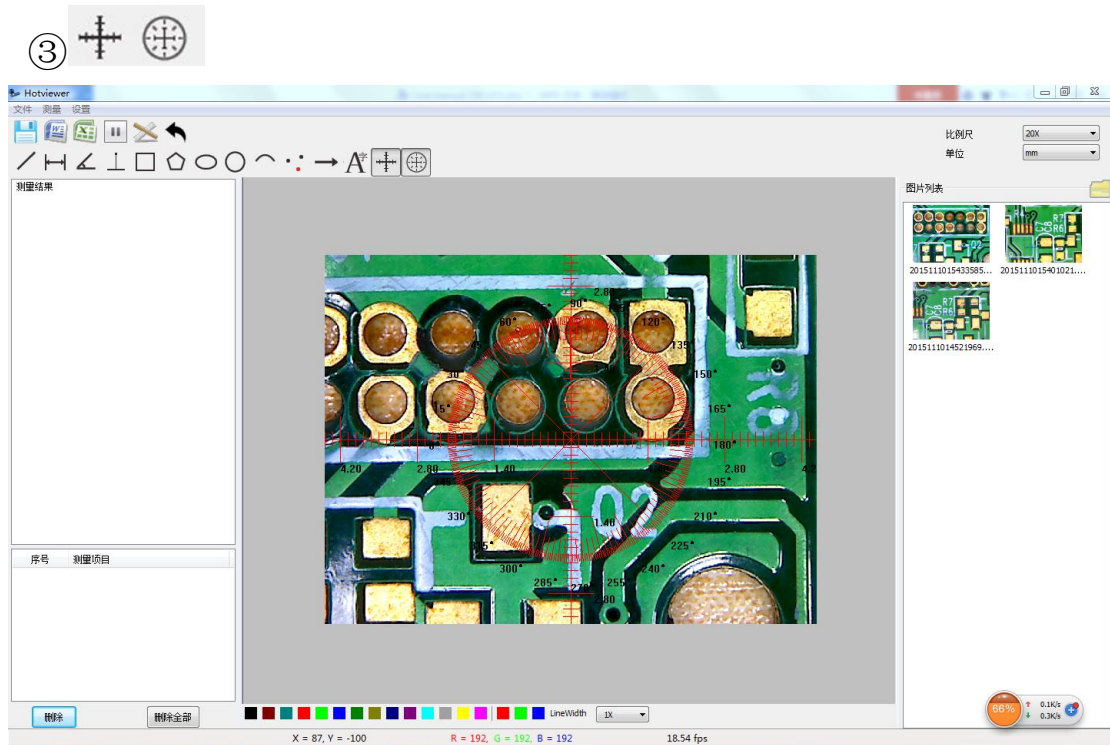
2. 测量



点击  保存图片




点击  保存图片



点击  保存图片

④ 导出结果

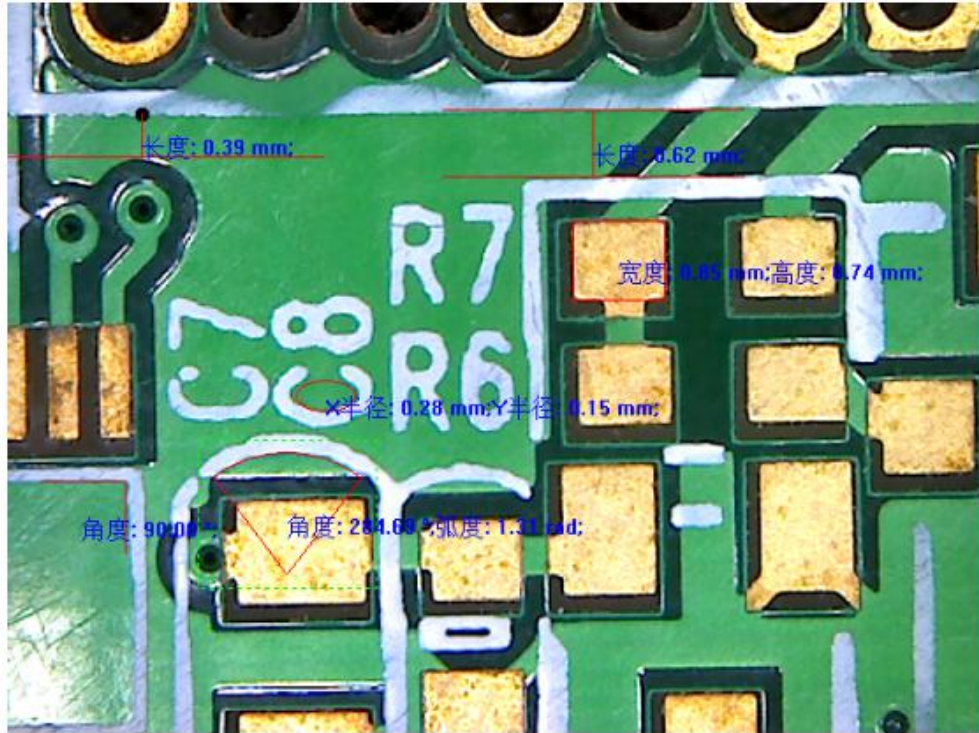
点击  图标，然后选择要导出的文件图片

测量项目: 2015111014521969.bmp

测量日期: 2015-11-10 15:50

比例尺 0.0140 mm/px

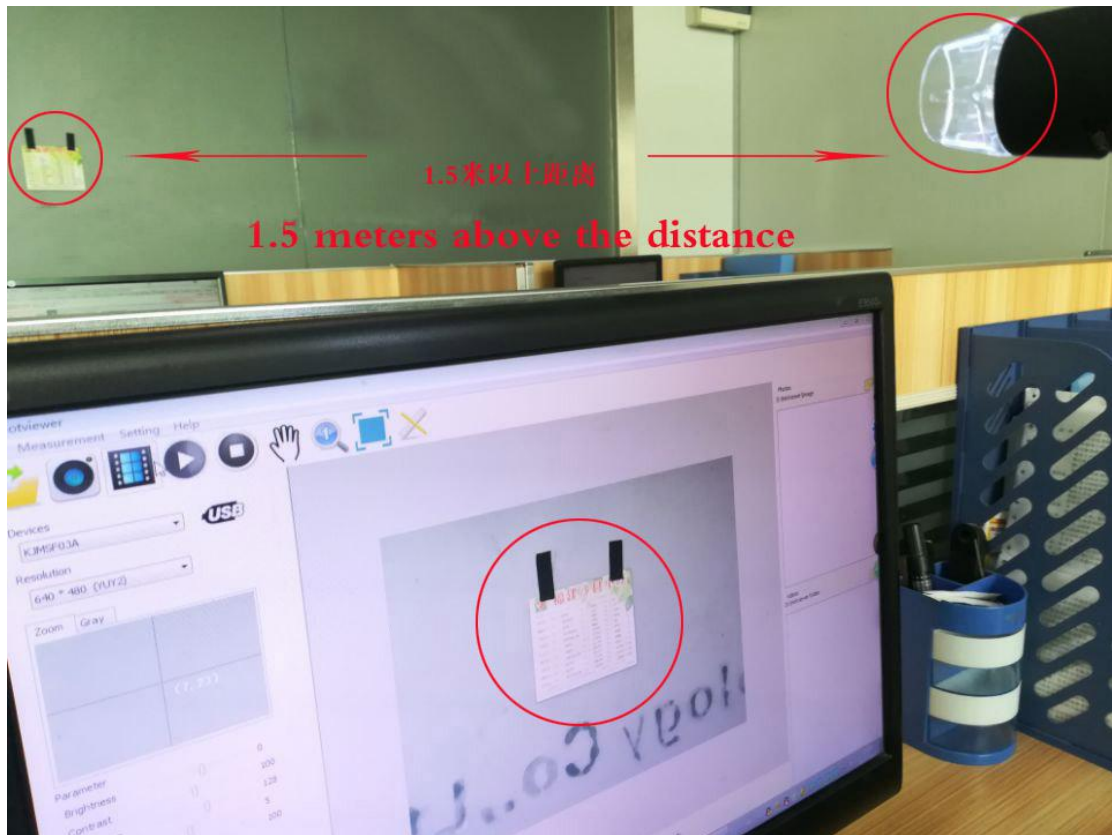
1. 平行线:
长度: 0.62 mm;
2. 角度:
角度: 90.00 °;
3. 点线距离:
长度: 0.39 mm;
4. 矩形:
宽度: 0.85 mm; 高度: 0.74 mm; 面积: 0.63 mm²;
5. 椭圆:
X 半径: 0.28 mm; Y 半径: 0.15 mm; 面积: 0.13 mm²;
6. 圆弧:
角度: 284.69 °; 弧度: 1.31 rad; 弧长: 1.47 mm;



关于检测物体1倍到2倍的说明：当显微镜镜头离物体距离在0.8米左右时，放大倍数为1.5倍到2倍左右，如下图所示



当显微镜镜头离物体距离大于1.5米以上时放大倍数为1倍，
如下图所示



检测1到2倍时，需要双手持显微镜往50X刻度转动滚筒，微调对焦检测，当调到清晰的图像时，要保持双手稳定，不晃动，如果手臂有轻微晃动，图像也会跟着晃动，从而造成图像不清晰，如果需要使图像在1到2倍状态下更清晰，需要在显微镜离被检测物体的距离大于0.8米以上的情况下，自己另想办法把显微镜固定，再进行1到2倍检测，在标配的黑色塑料升降支架上，不能检测1倍。

Thank you for Purchasing our S02-500X Digital Microscope, it is a slim type tool and can be easily used in different fields including

1. Textile industrial for textile inspection
2. Printing inspection
3. Industrial inspection: PCB, Precision machinery...
4. Educational purpose
5. Hair examination
6. Skin examination
7. Microbiological observation
8. Jewelry & coin (Collections) inspection
9. Visual Assistance
10. Others

Currently we have two models of Digital Microscope: USB port and TV port formats.

The USB microscope must be connected to the computer and TV microscope be connected to visual device (N/P). User interface is very friendly and you can do the Measure work easily.

You can find more information of the product on this manual.

CONTENTS

Introduction	30
Parts of Microscope	31
Specification	32
Notes before use	33
Product Outlook & Standard parts	33
How to install the Driver software	35
How to install the Hotviewer software	38
1X-2X detection instructions	51

Parts of Microscope



- ① LED Light ② Lens ③ Magnification 1X~500X ④ Focus roller
⑤ SNAP & Zoom switch ⑥ Body ⑦ USB line

Specification

Image CMOS Sensor

Controller High Speed DSP (Driver Free available)

Focus Range 0mm ~ 40mm

Snap Shot Software and Hardware

Video Capture Resolution 0.3M.

Built-in 8 White-light LED and adjustable illumination ensure the magnified images are clear and bright

Still Image Capture Resolution 320*240, 640*480, 800*600,
1280*960,1600*1200

Frame Rate 30 f/s under 600 LUX Brightness

Digital Zoom 5X Sequence Mode

Brightness Control Manual adjustment

Magnification Range 1X ~ 500X (Manually)

Power Supply USB Port (5V DC)

USB 2.0 & USB 1.1 Compatible

Operation System Windows XP, Vista, Win 7,Win 8,Win 10

Language: English, Chinese and other language can be OEM

System Requirement: Pentium Computer with 700M Hz & above,
20M HD Space CD ROM Driver, 64MB RAM, Direct X VGA Card

Product dimension 112 mm (L) X 33 mm (D)

Product net weight: 320g

Available color: Black, and OEM other colors.

Notes before use

1. Don't disassemble the digital Microscope or change the interior parts, it can cause damage.
2. Don't clean the Microscope with alcohol organic solvents
3. Don't touch the lens with your fingers.
4. Avoid outdoor use if possible.
5. Storage temperature , 0°C ~ 40°C, Humidity: 45%RH ~ 85RH%.
6. In case the product gets wet, leave PC connection immediately. And do not disassemble or dry by hair dryer. Send to repair center if the digit microscope was effected by liquid or other elements.
7. Measurement Data only for reference.

Product Outlook & Standard parts

1. Digital Microscope (1pcs)
2. Calibration ruler (1pcs)
3. Lift Stand (1pcs)

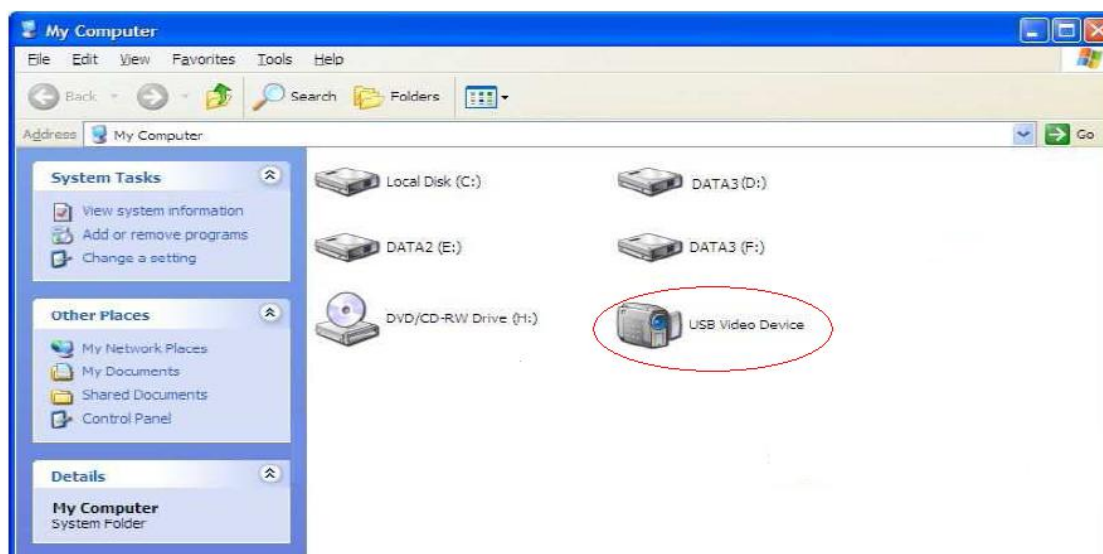
Hardware system requirements

Windows 2000、XP、VISTA、WIN7 Pentium 1G, Celeron, AMD 1G & above, 128MB Memory, 150MB Hard Disc memory space, 16-bit & above VGA ,CD-ROM, USB2.0 or USB1.1.

How to install the Driver

S02-500X Digital Microscope is a free Driver Product, it connected to Windows XP system, it can work immediately.

1. Connect the Portable digital microscope by USB2.0 cable to your computer, double click 'my computer' icon on your computer desktop, below interface will be shown up.




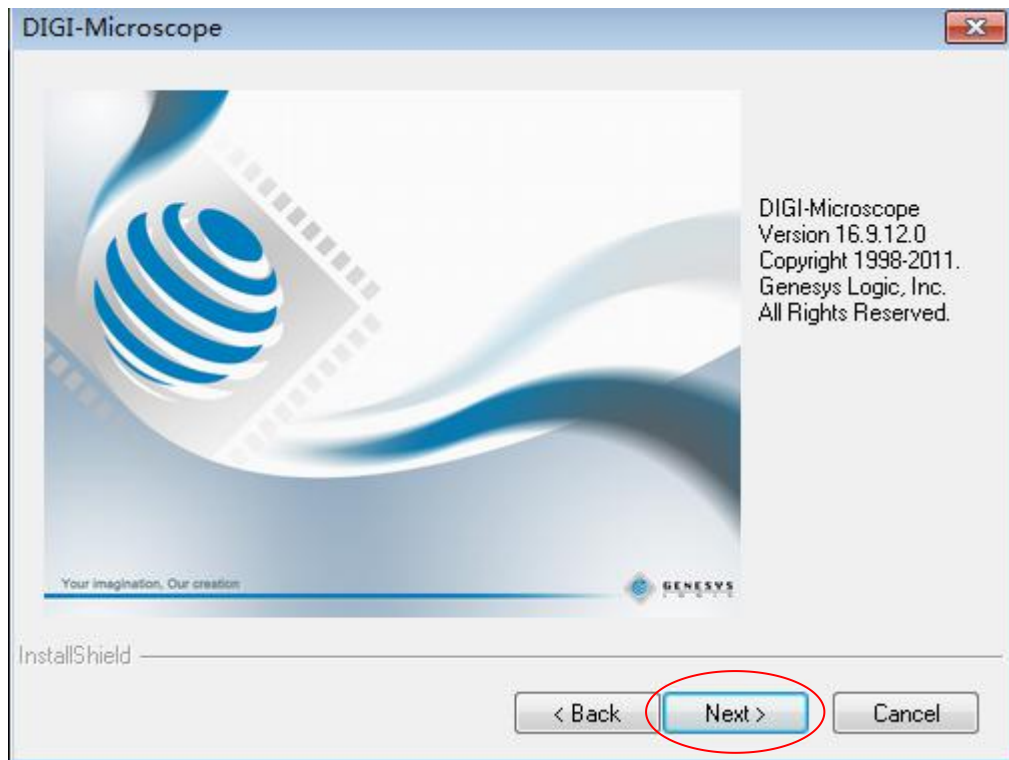
2. Double click the **Video device icon** as above red marked in your computer. Now it is ready to use.

1. Driver installation

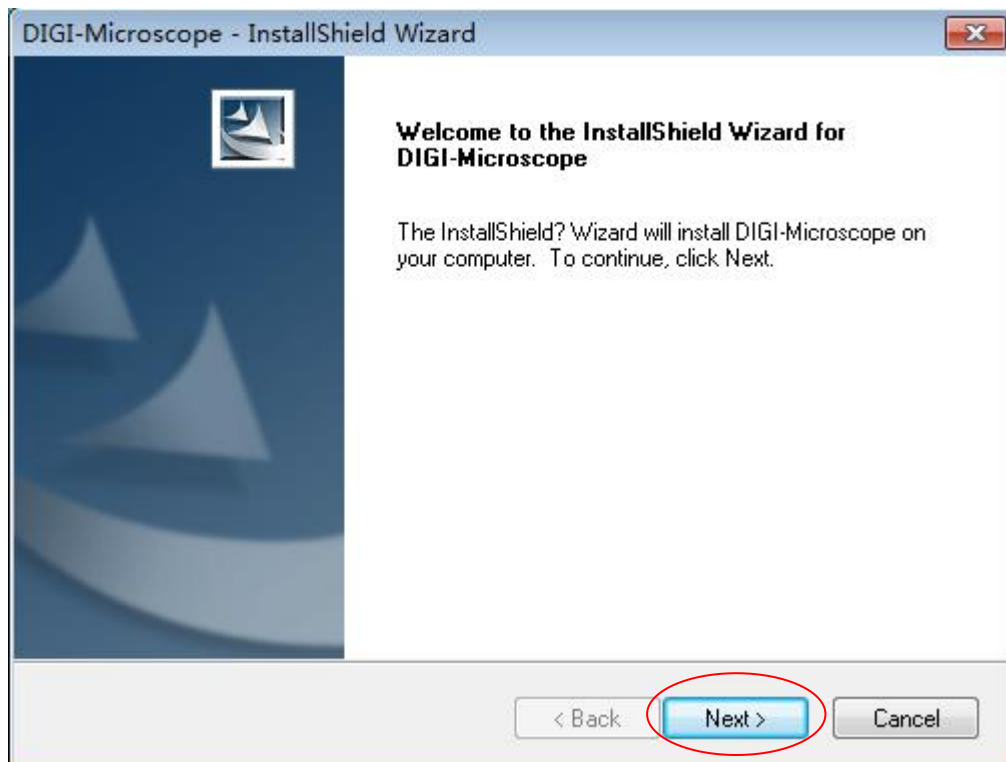
In the computer browser site bar input link: www.indmu.com/hot/2.rar, download the file after extracting, and then double-click the installation software Driver Steup.exe

1 **Connect the product to your computer first**, then double click

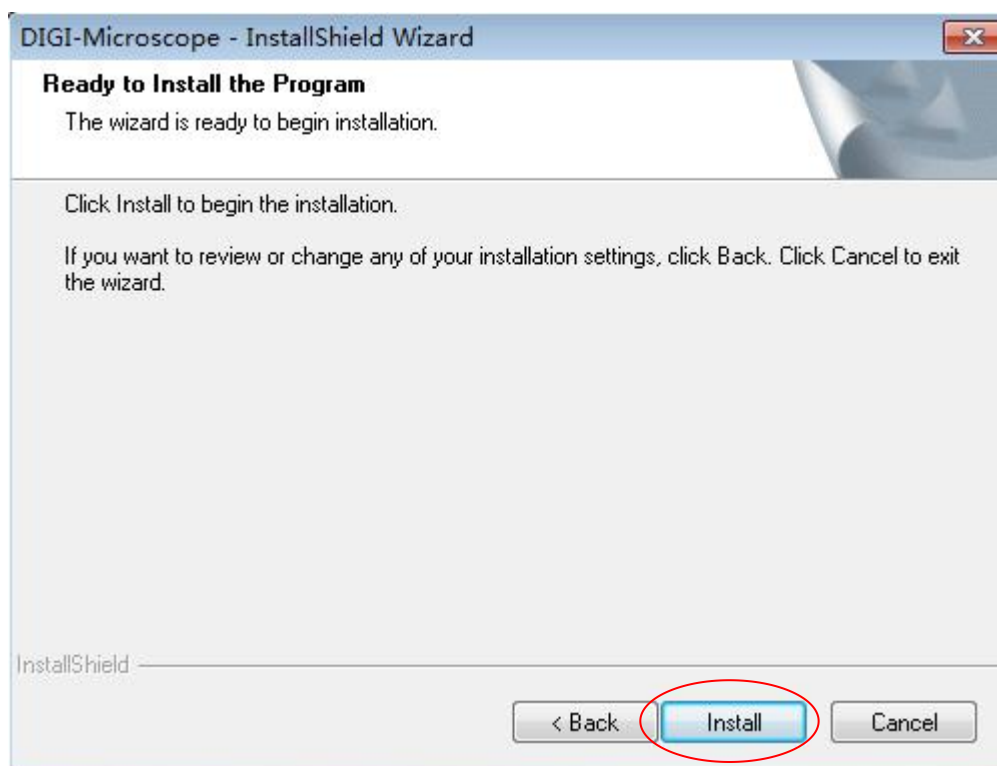
 Drive Setup Driver Steup.exe to continue, the screen will show the installation progress.



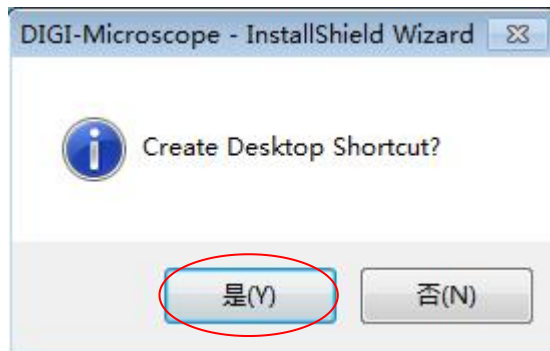
Click "next" to continue



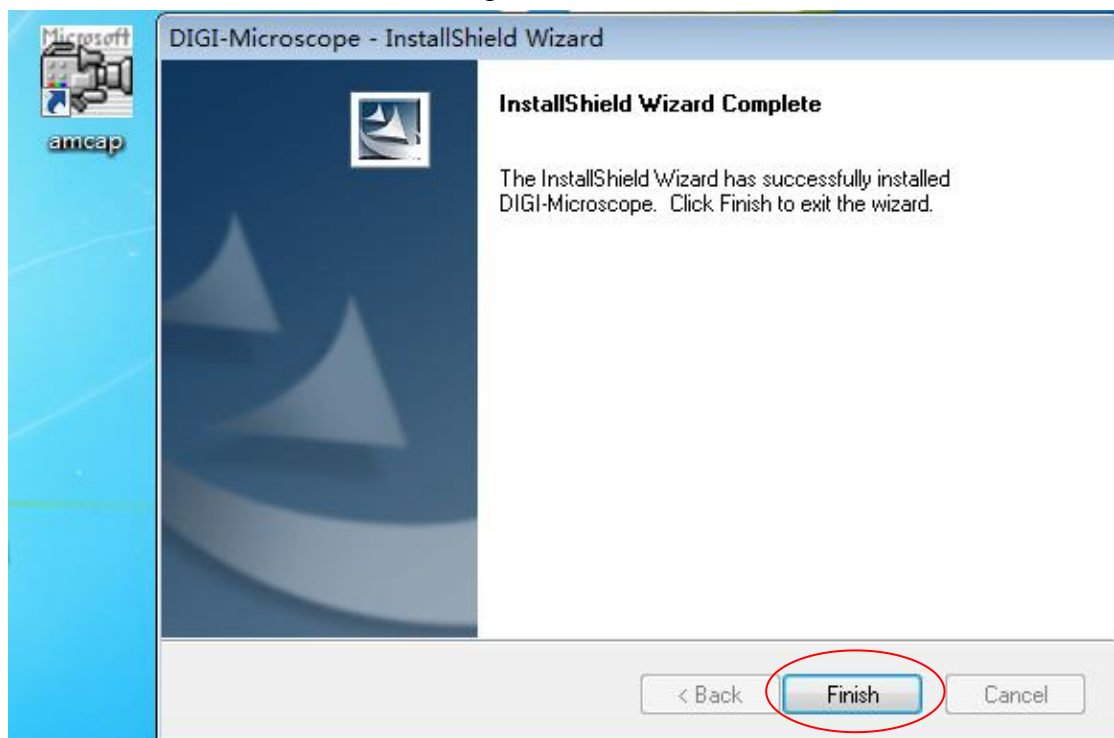
Click“next”to continue



Click“Install”to continue, as followings:

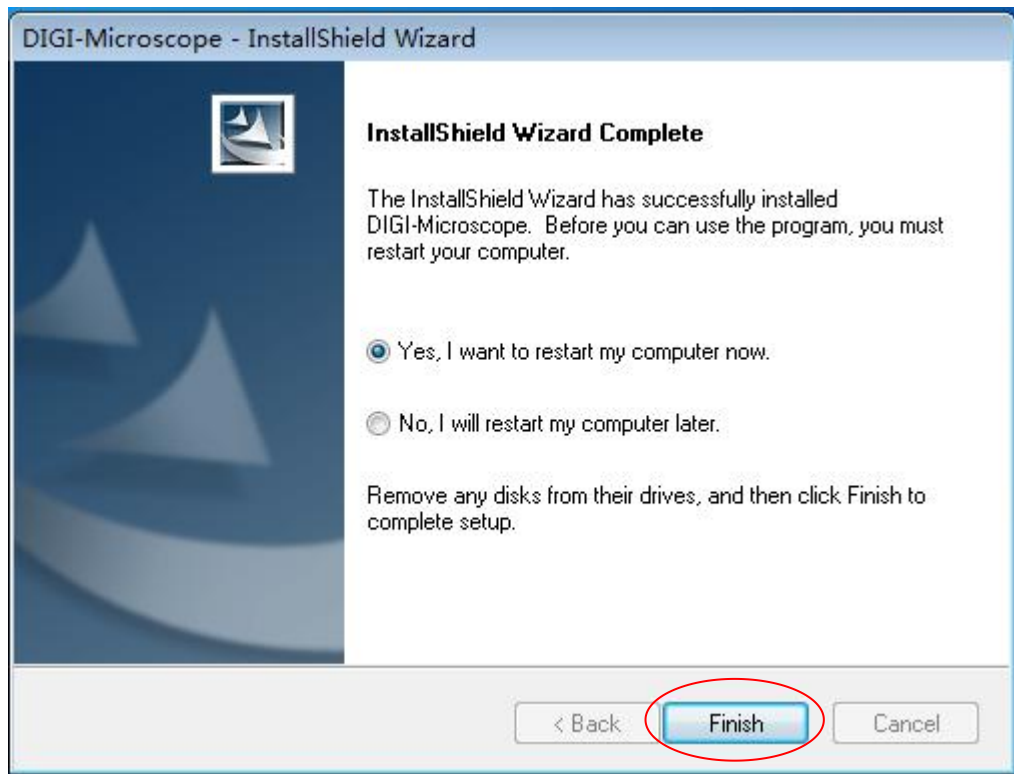


Click“是”to continue, as followings:



Click“Finish”to continue, as followings

Select 'Yes, I want to restart my computer now', and click “finish”.



After restart your computer, Plug-in the USB port of Digital Microscope into Computer USB port. Following the user guide by steps and complete by click “Next” -> “Continue anyway” -> “Finish”.

2 Hotviewer installations: **Windows(PC)** (Win7 for example)

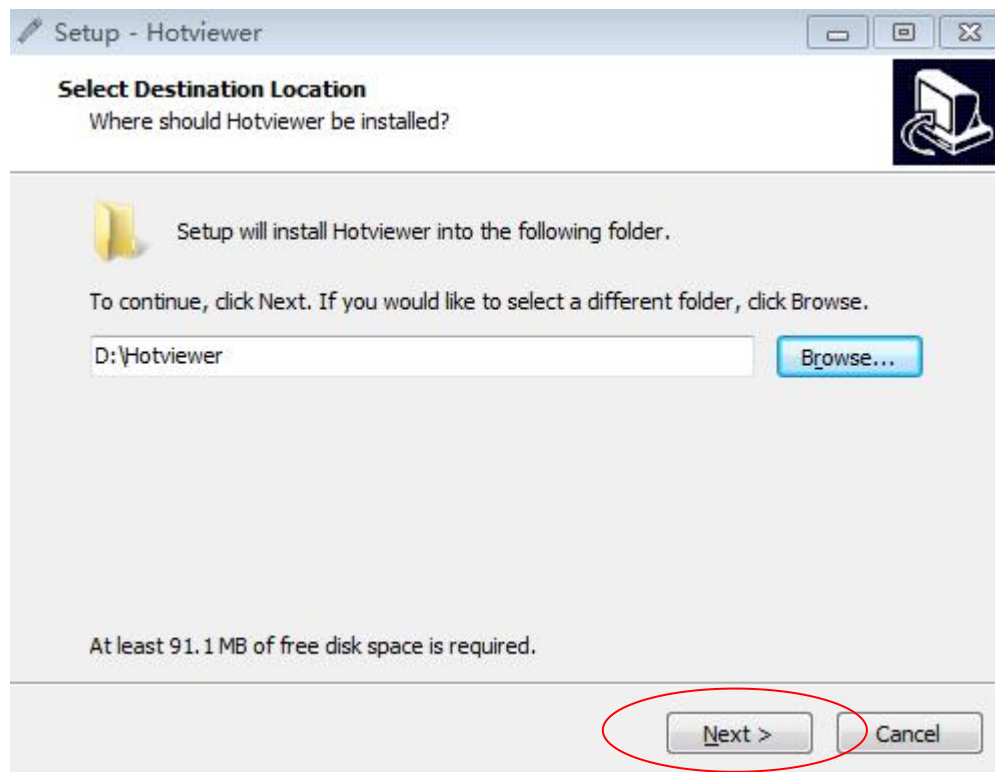
Reminder: When installing Hotviewer software, please exit the anti-virus software to install, because anti-virus software will hinder the installation

process and destruction of software, installation errors and can cause an unsuccessful installation and other anomalies.

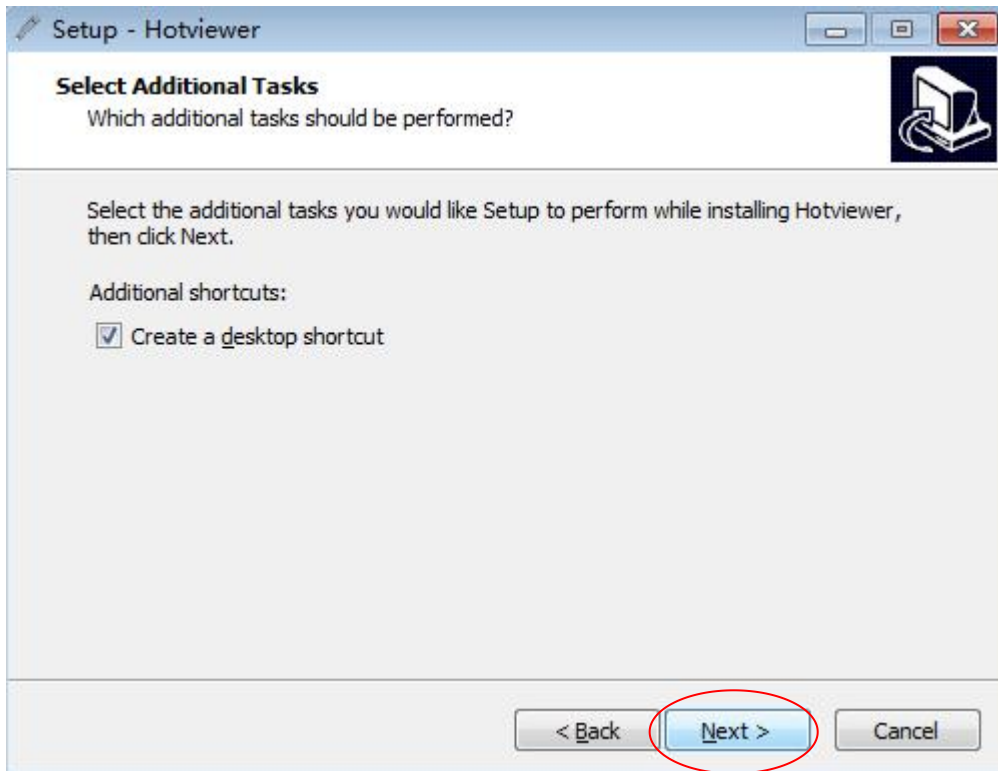
1. In the computer browser site bar input link: www.indmu.com/hot/2.rar, download the file after extracting, and then double-click the installation software Hotviewer.exe



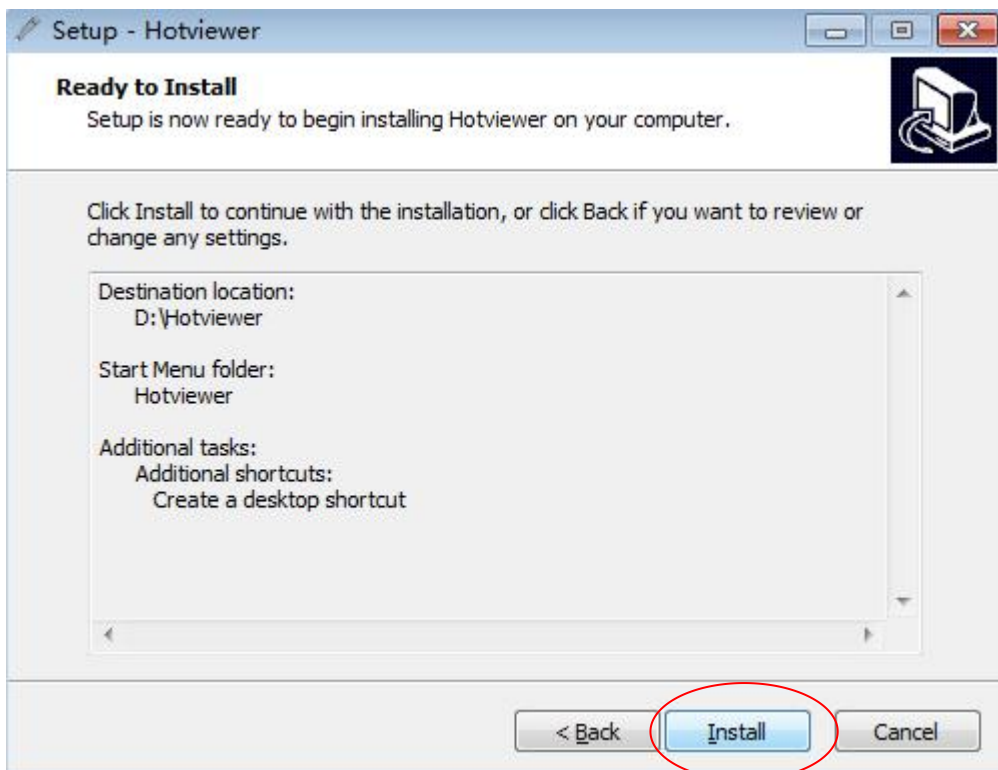
Click "OK"



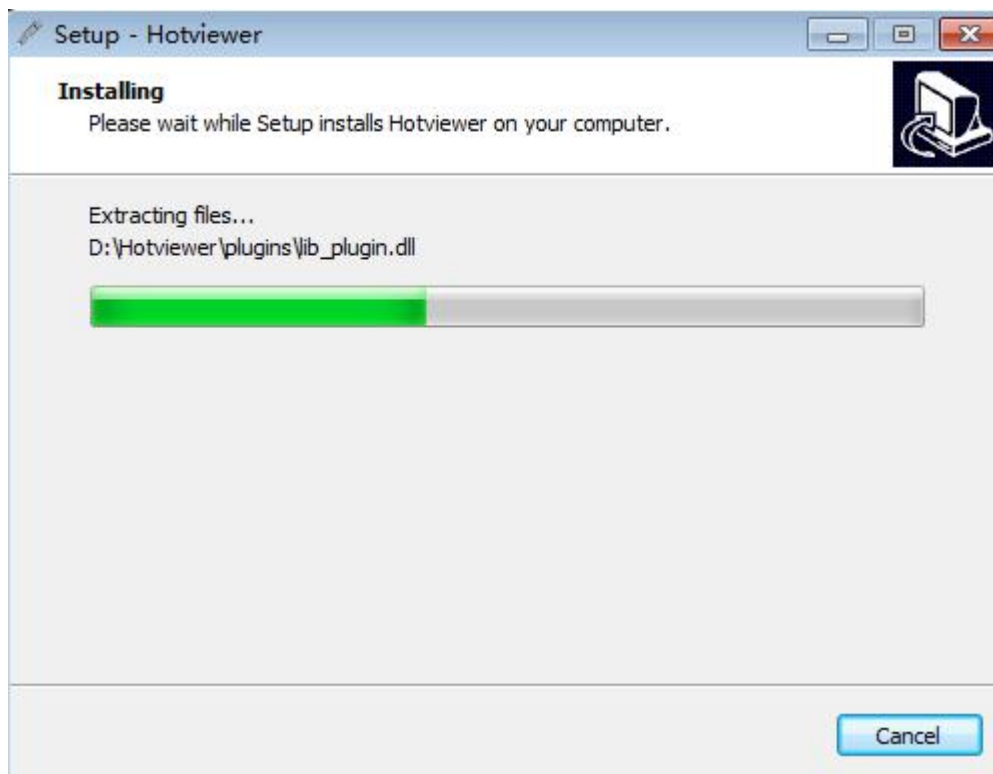
Click "Next"



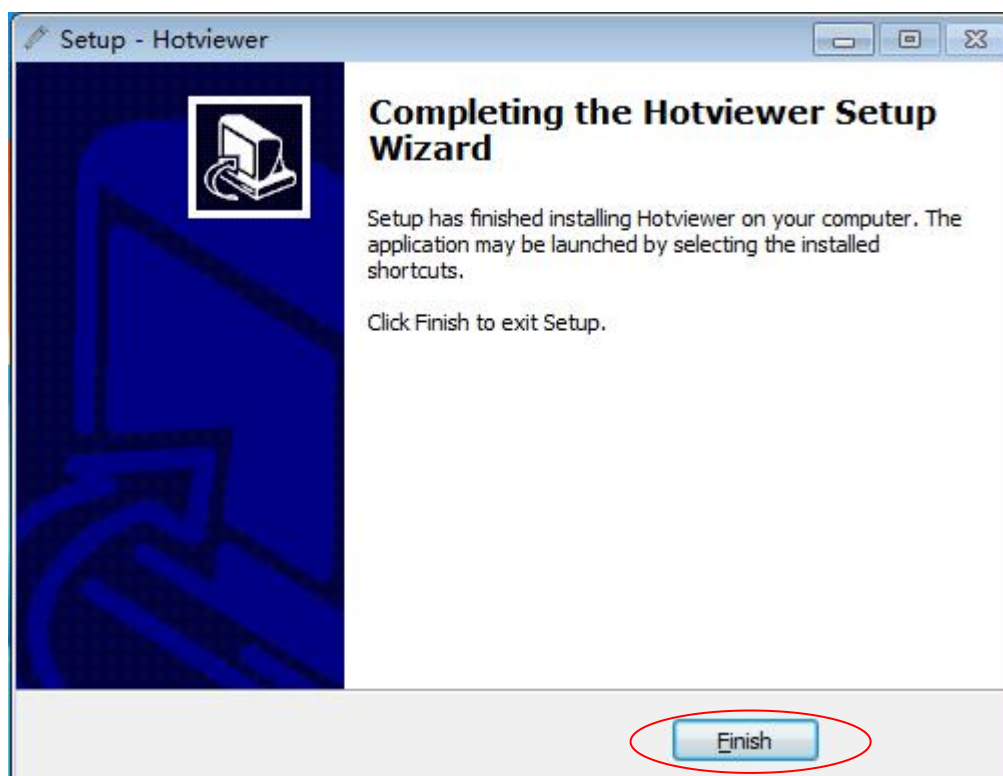
Click “Next”



Click “Install”



Waiting for the installation progress to complete

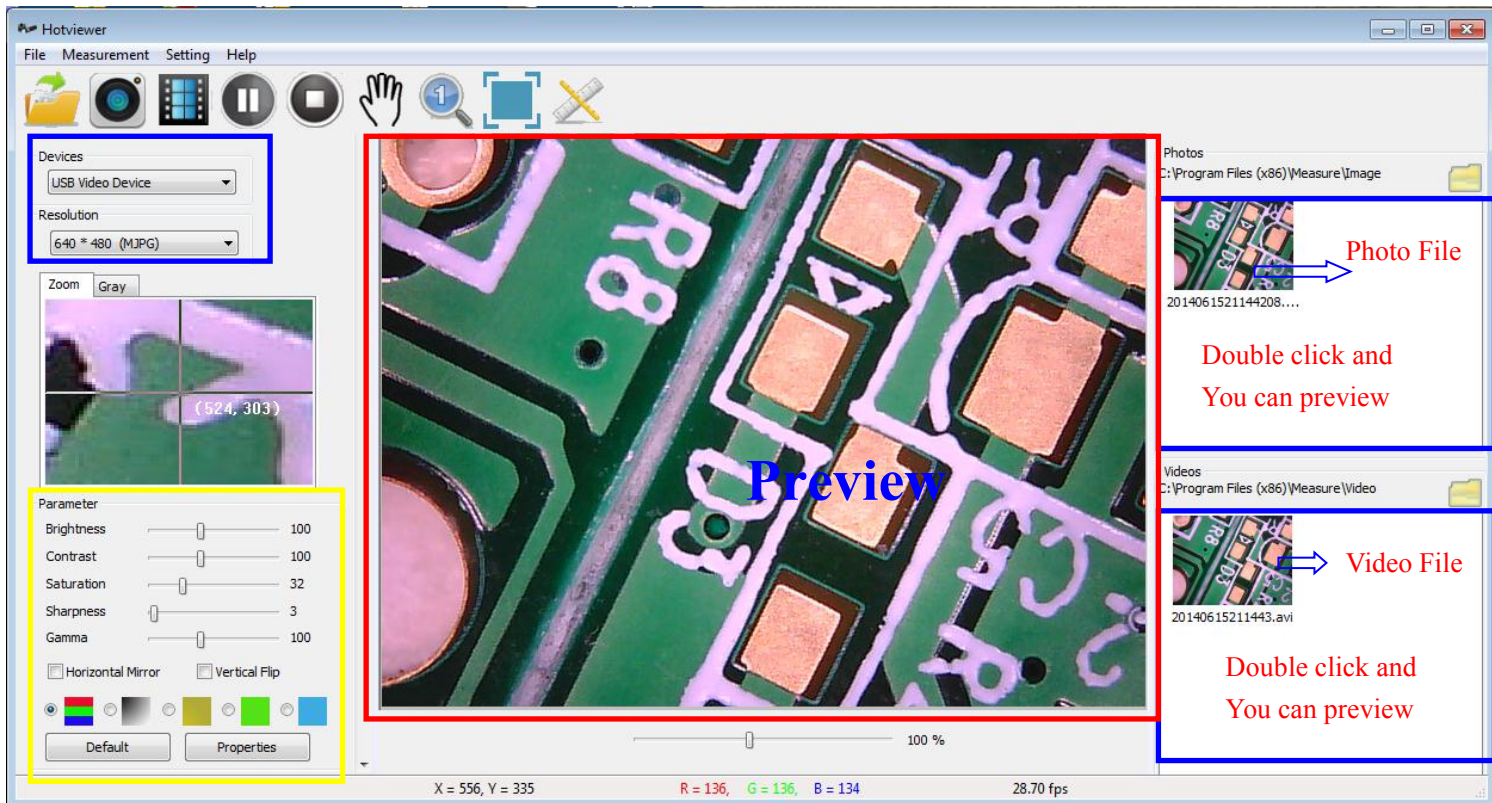


Click "Finish" to complete the software installation

2. When a microscope was connected to a computer via a USB cable,



Click the **Hotviewer**, you can open the preview of the application interface.



3. Interface introduction

1. Tool bar

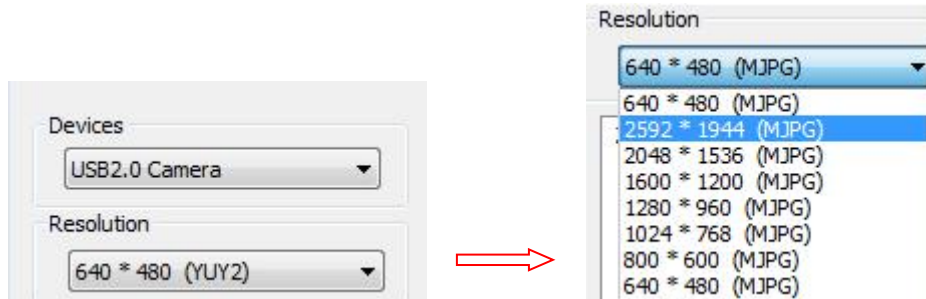


Open image **photo** video **pause/play** stop

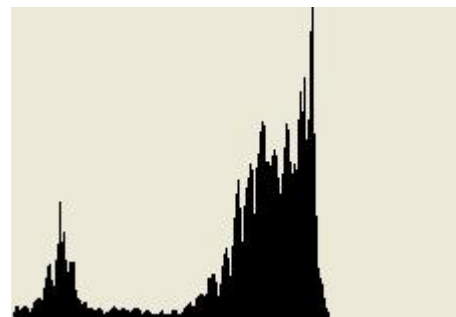


move initial full screen measurement

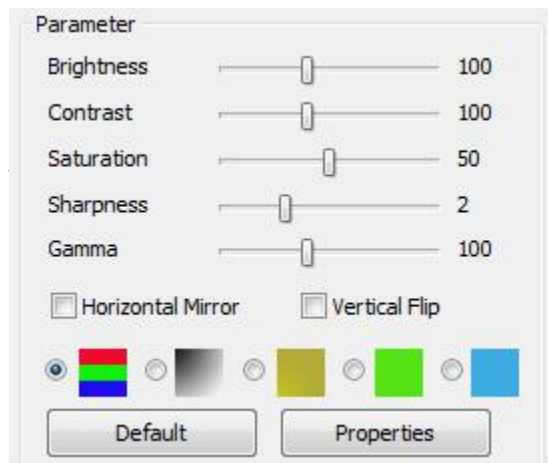
2. Devices



Digital zoom



Gray level

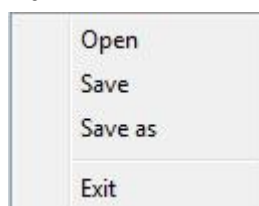


You can set the parameter, if you want to restore the factory state, please Click 'Default'.

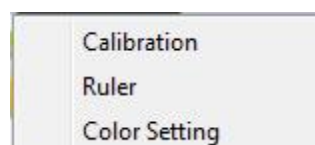
3.menu



File

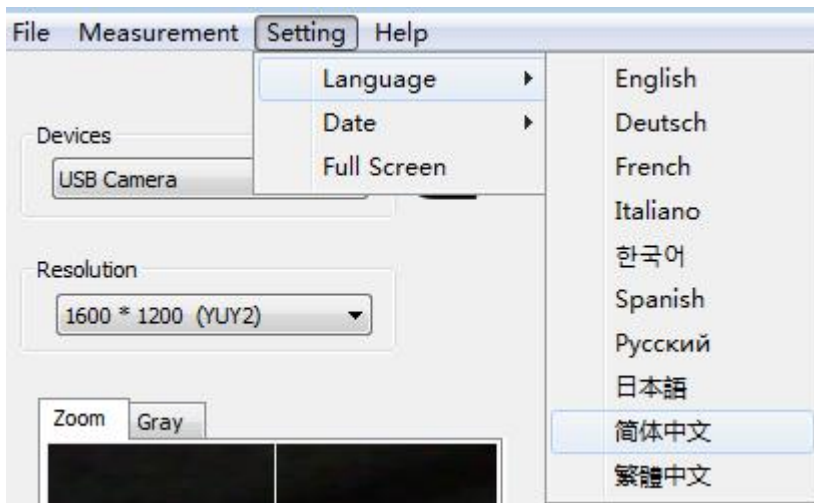


Measurement

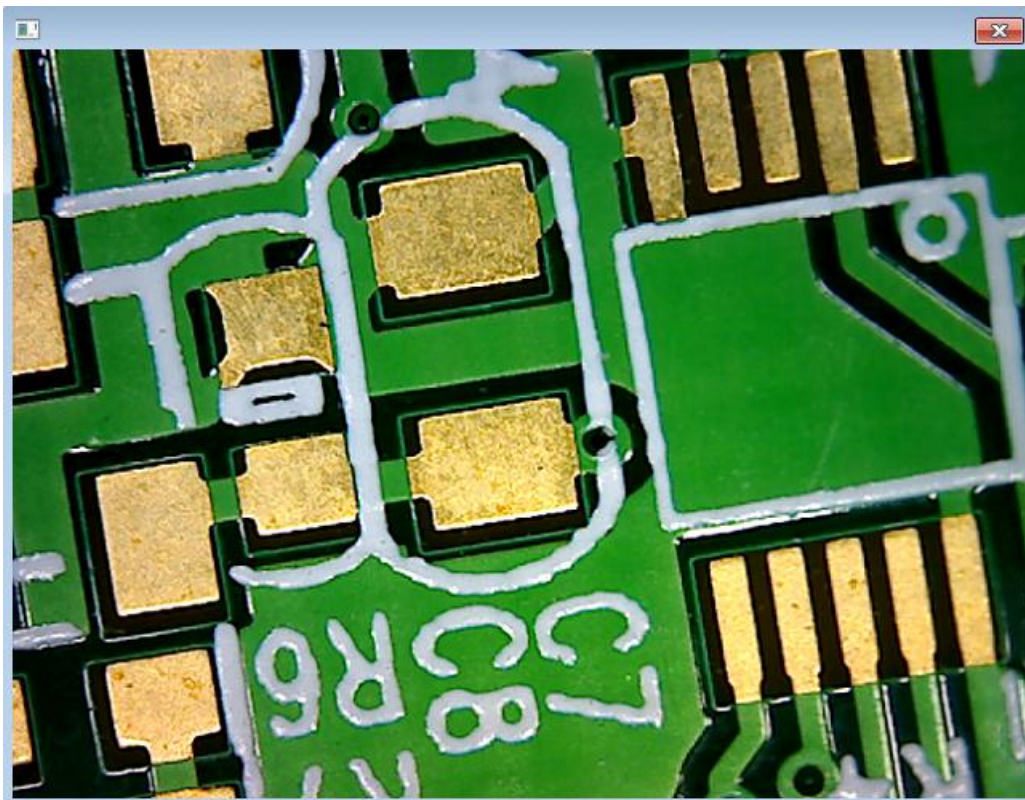


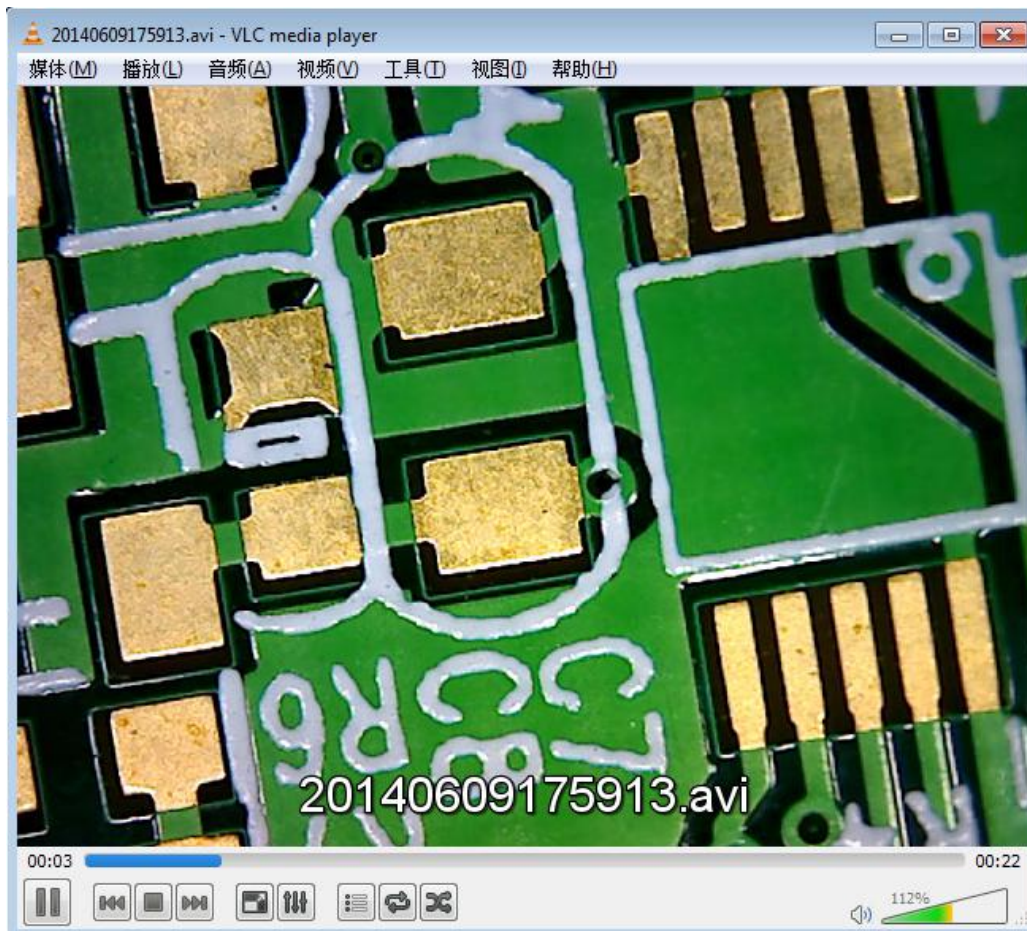
Click this menu and open the measurement interface.

Setting

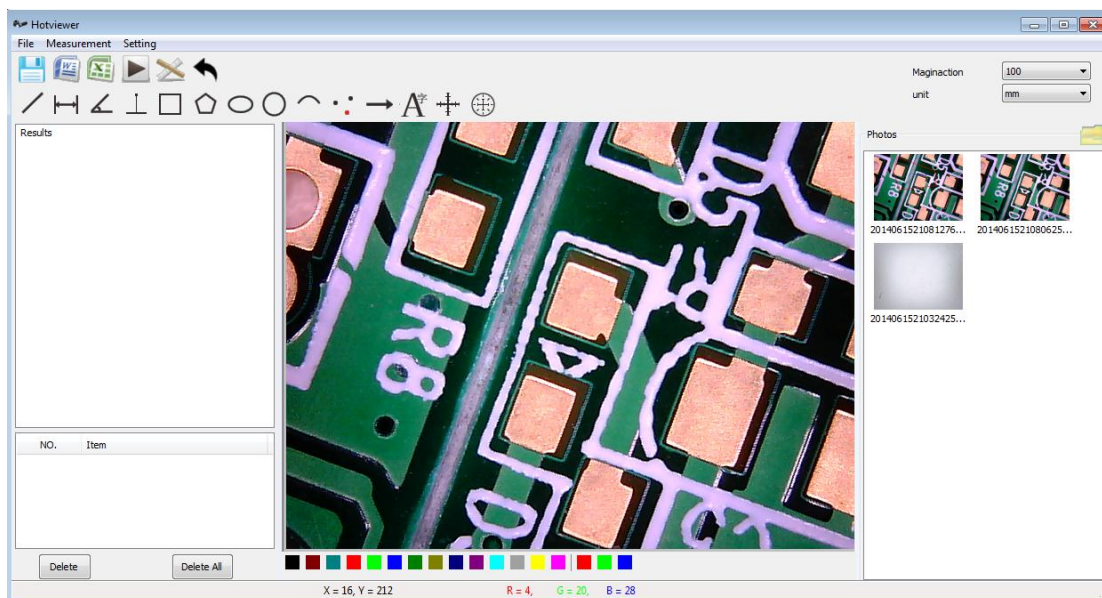


4 .Photo & Video (double click file and open it)

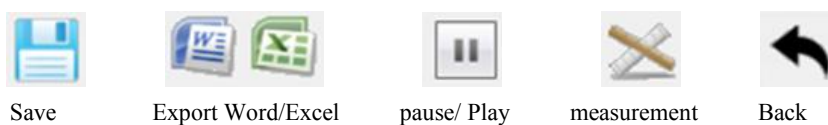




5. Measurement interface



6. Tool bar



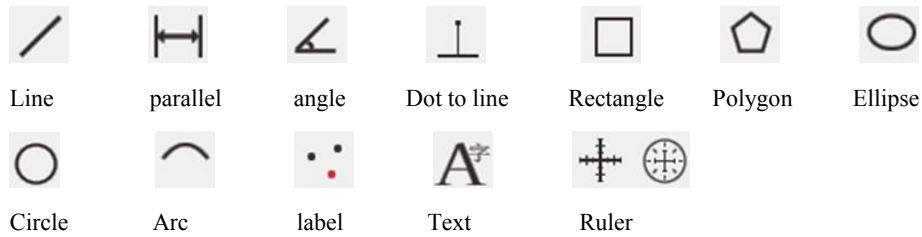
Save

Export Word/Excel

pause/ Play

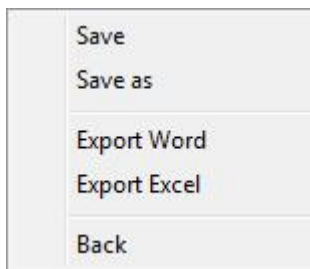
measurement

Back

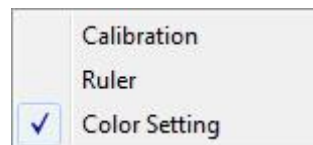


7. menu introduction

File



Measurement



Setting

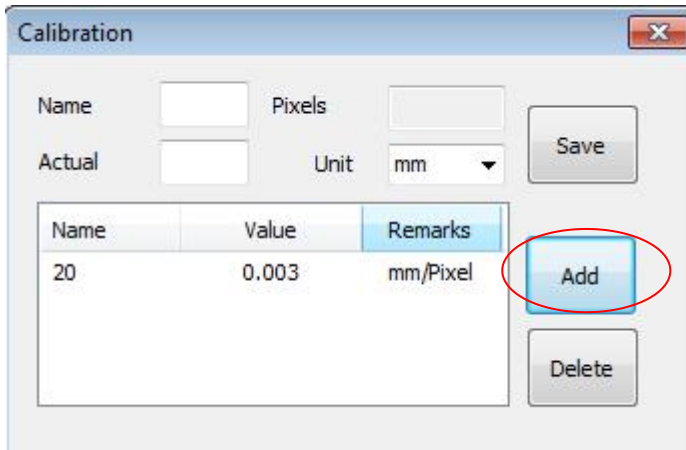


8. Measurement

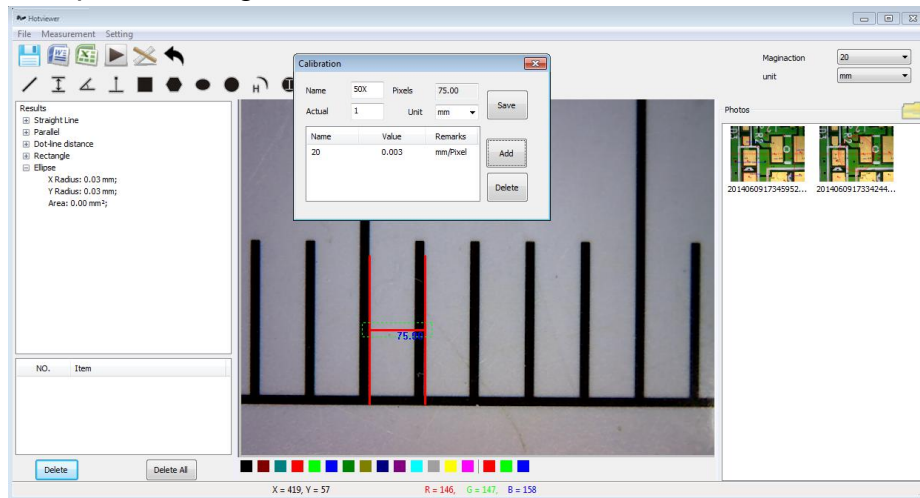
(1) Calibration

Before measurement, please do calibration to make sure a certain accuracy. Our experience tells us that the measurement accuracy can be controlled to as high as 99%. Human eye distortion or defocus could cause measurement tolerance. More practice is helpful to measurements.

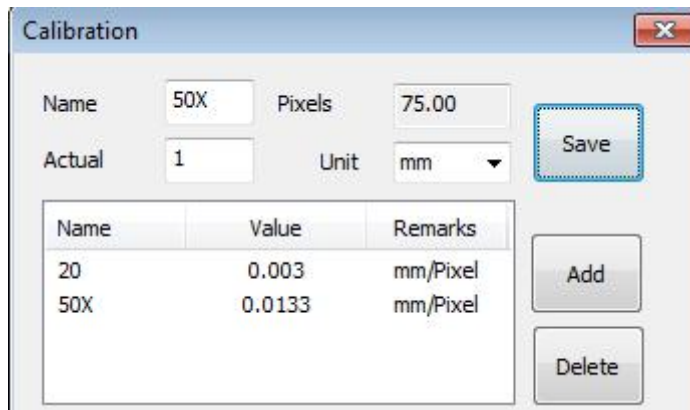
Step 1 ,Click , and press ' add'



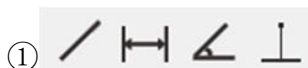
Step2, Shooting calibration ruler calibrate the ruler

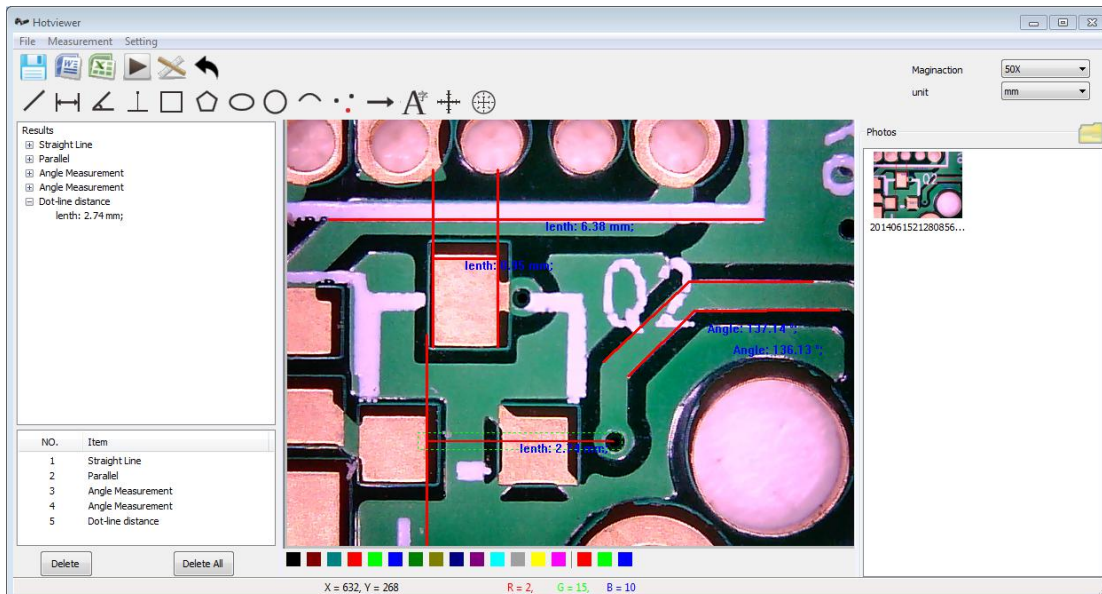


Step3, Record key information and save it

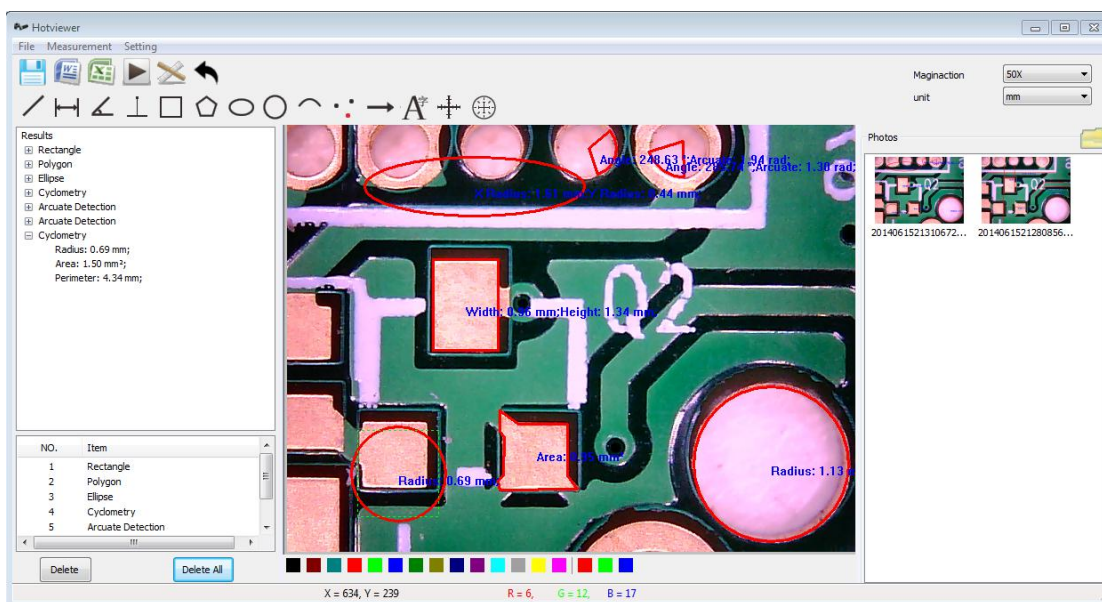


2. Measurement



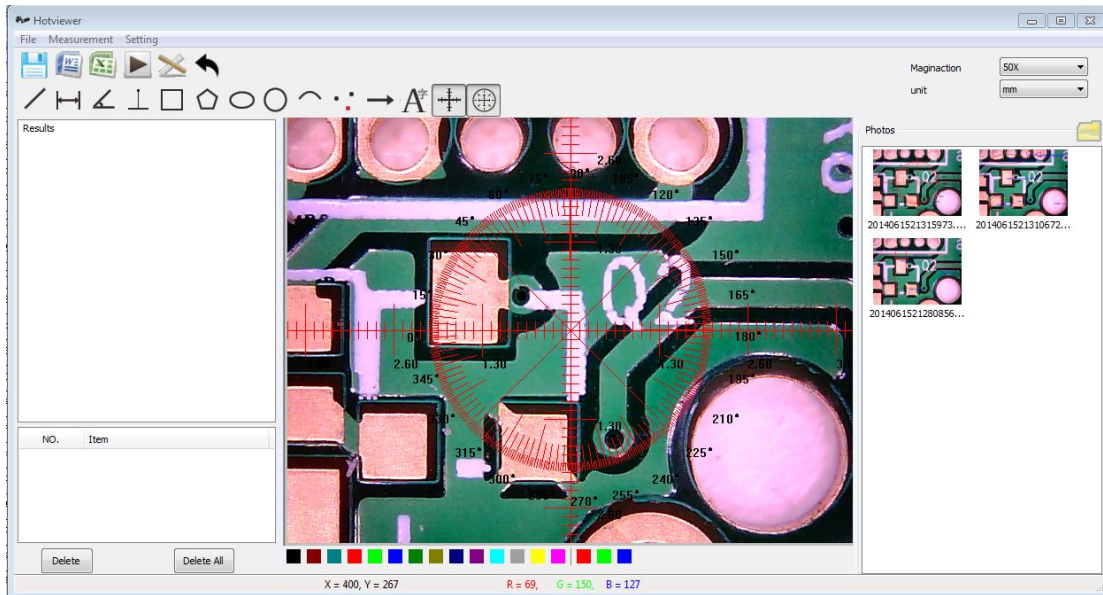


Press  to save picture.



Press  to save picture.





Press  to save picture.

④ Export result

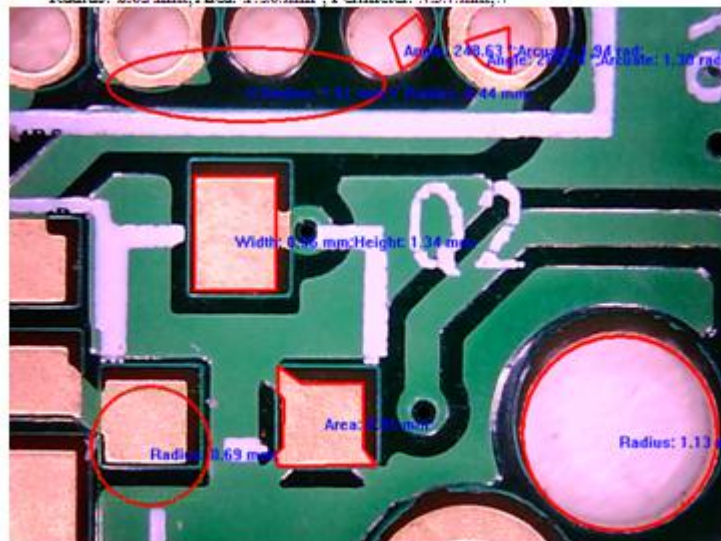
Press , then export the file selected.

Item: 20140615213106723.bmp

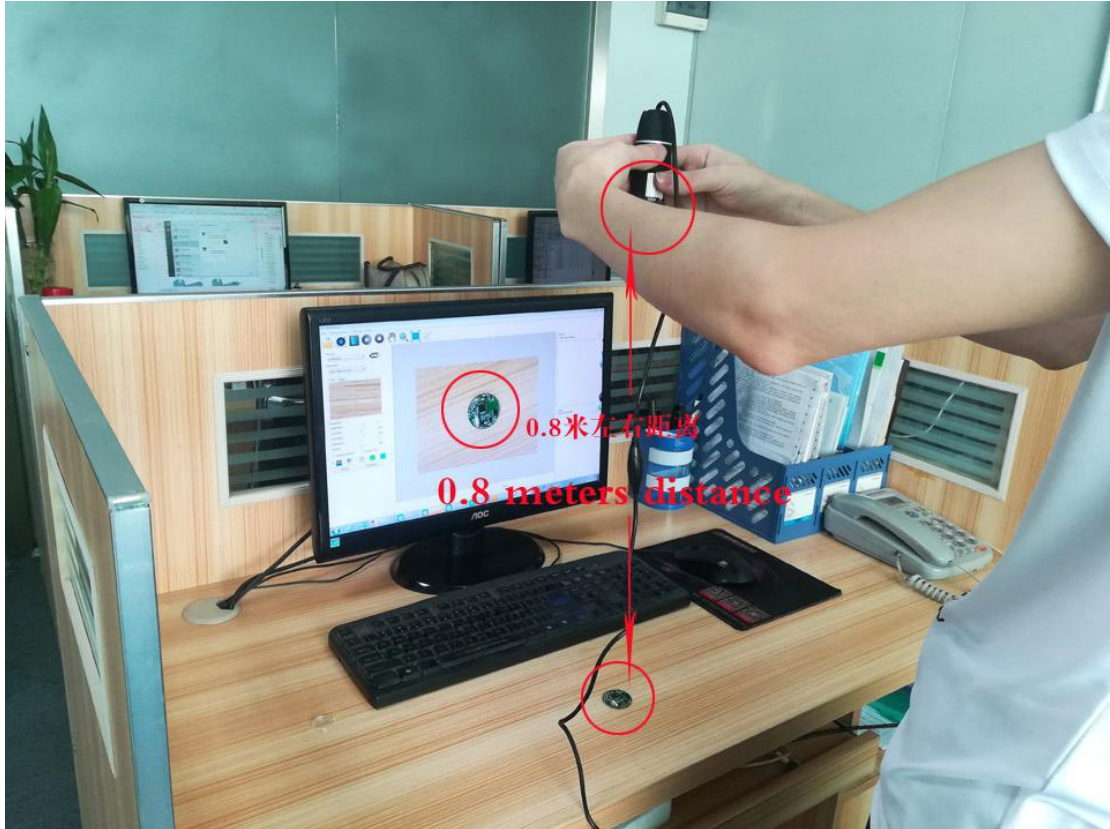
Data: 2014-06-15 21:33

Magnification ruler 0.0130 mm/px

1. Rectangle:.
Width: 0.96 mm; Height: 1.34 mm; Area: 1.29 mm²;
2. Polygon:.
Area: 0.95 mm²;
3. Ellipse:.
X Radius: 1.61 mm; Y Radius: 0.44 mm; Area: 2.21 mm²;
4. Cyclometry:.
Radius: 1.13 mm; Area: 4.03 mm²; Perimeter: 7.11 mm;
5. Arcuate Detection:.
Angle: 285.74 °; Arcuate: 1.30 rad; Radian: 0.69 mm;
6. Arcuate Detection:.
Angle: 248.63 °; Arcuate: 1.94 rad; Radian: 0.79 mm;
7. Cyclometry:.
Radius: 0.69 mm; Area: 1.50 mm²; Perimeter: 4.34 mm;

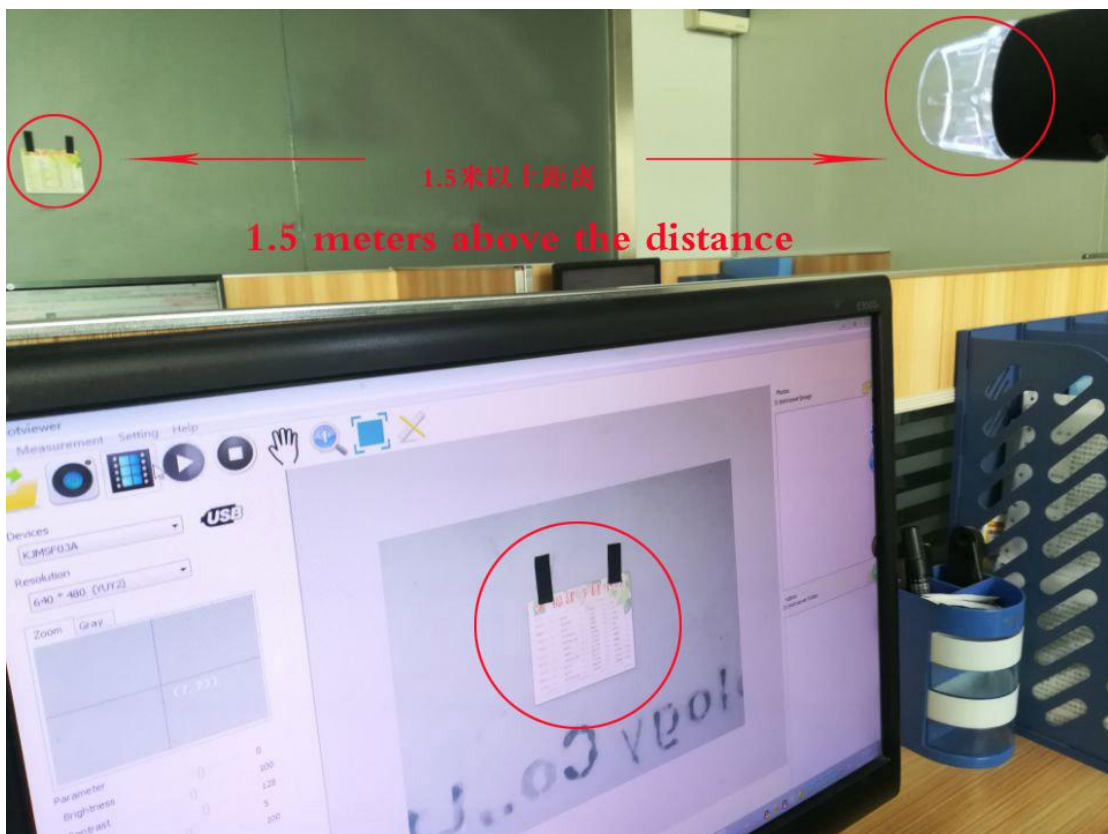


Instructions for detecting objects and zooming 1-2X: when microscope lens at the distance of 0.8 meters or so away from the object, to zoom 1.5-2X, as shown below





when microscope lens at the distance of more than 1.5meters
or so away from the object, to zoom 1X, as shown below



To zoom 1-2X, your hands need to hold the microscope and turn to the 50X scale, fine-tuning focus and detect, when to get a clear image, keep your hands stable. Do not move, if you move the arm slightly, the image will move too, resulting in the image not clear. If you want to make the image more clearly to zoom 1-2 time, you need to keep the microscope from the object more than 0.8 meters away, and fix it unmovable, and then zoom 1-2X detection. On the standard black plastic lift stand, it can not be zoomed 1X.