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Digital Microscope
User Manual

（English）

Prepared by Cooling Tech

2009.09.24

Thank you for purchasing our U500X 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.

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Parts of Microscope

Focus roller

USB Line

Magnification Ratio

Snap

LED Light

Metal Fixed Stand

Specification

Image CMOS Sensor

Controller High Speed DSP (Driver Free available)

Focus Range 0mm ~ 40mm

Snap Shot Software and Hardware

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

Still Image Capture Resolution 640*480

Frame Rate 30 f/s under 600 LUX Brightness

Digital Zoom 5X Sequence Mode

Brightness Control Manual adjustment

Magnification Range 50 X ~ 500X (Manually)

Power Supply USB Port (5V DC)

USB 2.0 & USB 1.1 Compatible

Operation System Windows XP, Vista, Win 7 32 bit and 64 bit,win8,win10

Language: English, Chinese and other language by selection

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

CD disk Driver and Micro-Measurement Tool

Product dimension 112 mm (L) X 33 mm (R)
Product net weight: 270g
Available color: Matting black, UV black; and other colors.

Notes before use

1. Don't dissemble 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:22%RH ~ 85RH%.

6. In case the product gets wet, leave PC connection immediately. And do not dissemble 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

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1. Digital Microscope (1pcs)

2. USB 2.0 cable

3. Metal fixed Stand (1pcs)

4. CD ROM (Driver, Measurement software, User Manual)

Hardware system requirements

Windows 2000、XP、VISTA、WIN7、WIN8、WIN10.

Pentium 1G, Celeron, AMD 1G & above,

128MB Memory, 150MB Hard Disc memory space,16-bit & above

VGA ,CD-ROM, USB3.0、USB2.0 or USB1.1.

How to install the Driver

U500X   Digital Microscope is a free Driver Product，it can be worked immediately after connected to the computer with operation system above win2000 version.

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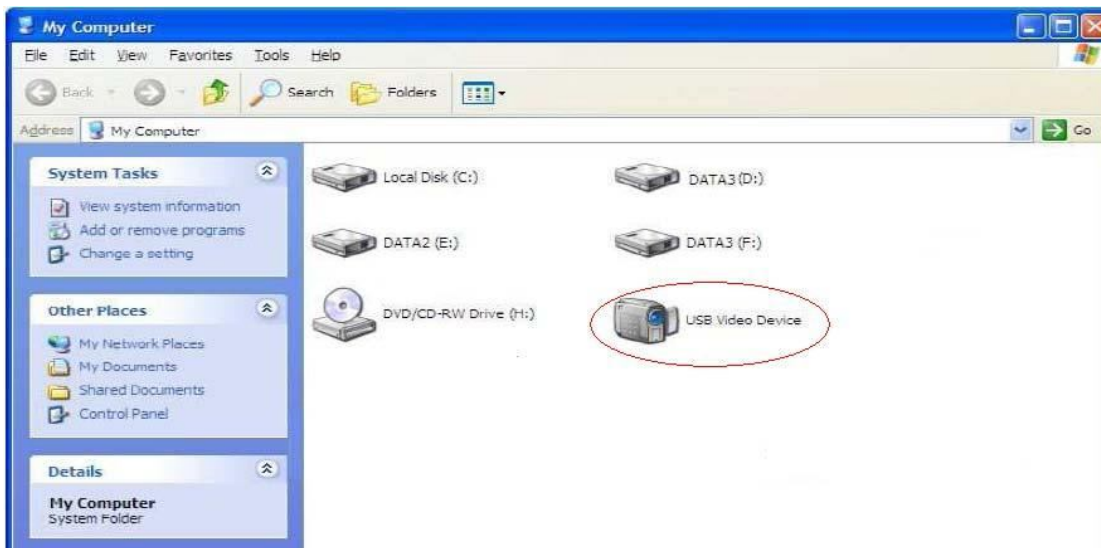
2. Double click the **Video device icon** as above red marked in your computer. Now it is ready to use.

If you can't find the Video device, or if your computer can't recognize it, please follow below steps to install the driver.

Plug-in the USB port of Digital Microscope into Computer USB port.Insert the attached CD,

system will auto run to the interface as below and

follow the steps to complete the installation:

(NOTE：If the computer can't auto run the disc, you need to operate

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manually by click "My Computer"　→ "DVD/CD Driver" →
run"AUTORUN.EXE")

1. Driver installation

1.Click [Driver] to continue,　or open the 'Amcap Driver'folder,
double click the 'setup.exe'to setup,the screen will show

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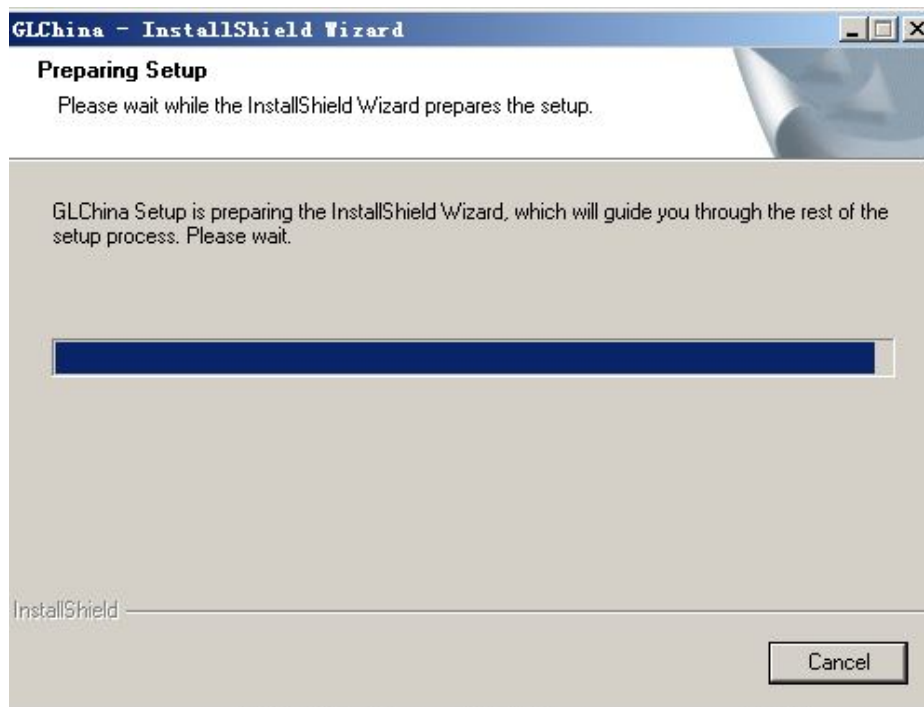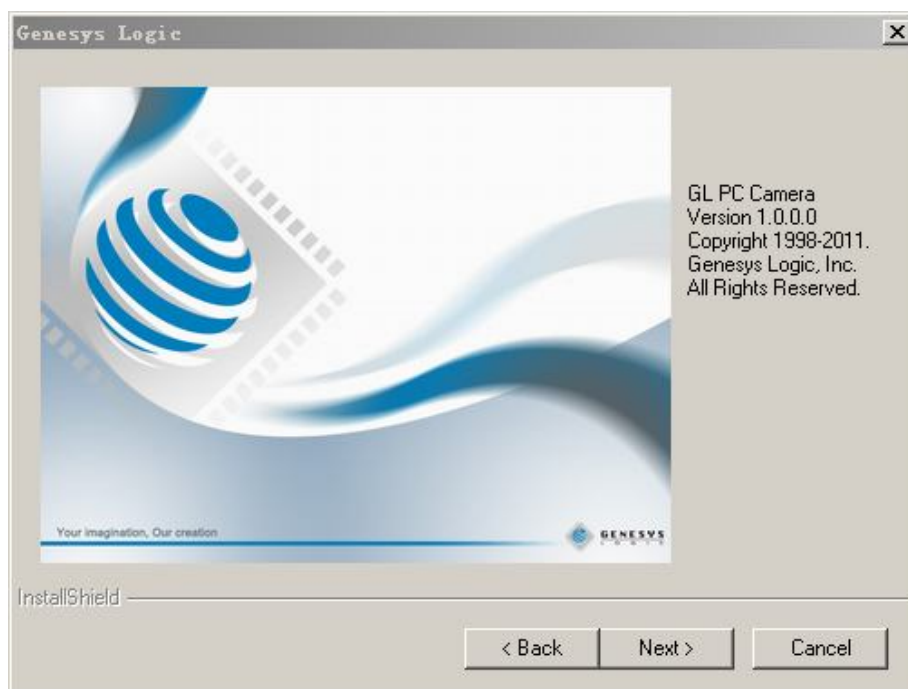
Click"next"to continue，as followings:
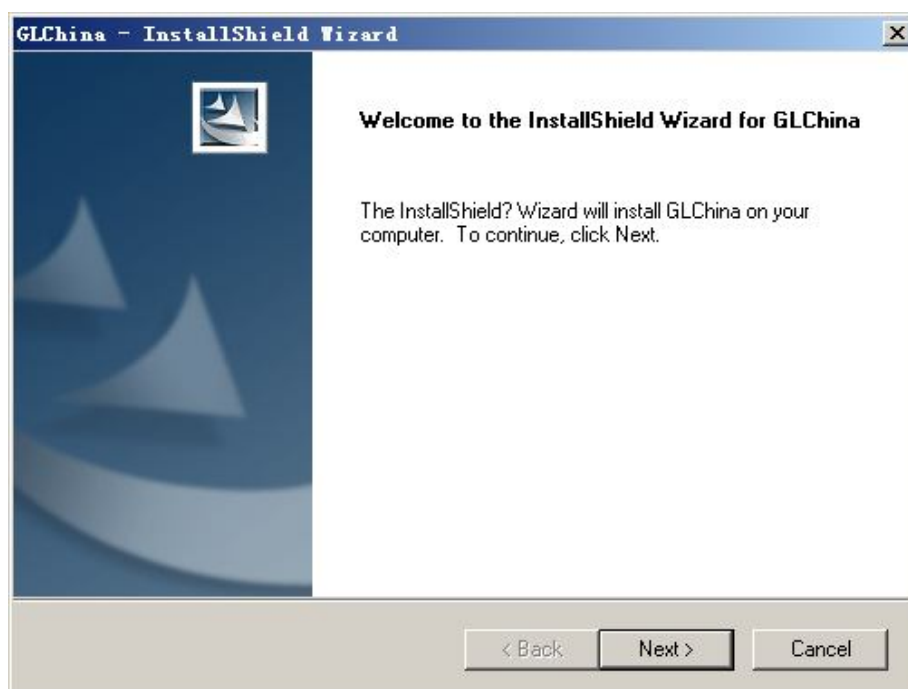
If found Warning message,Please choose " continue".

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Click"next"to continue，as followings:
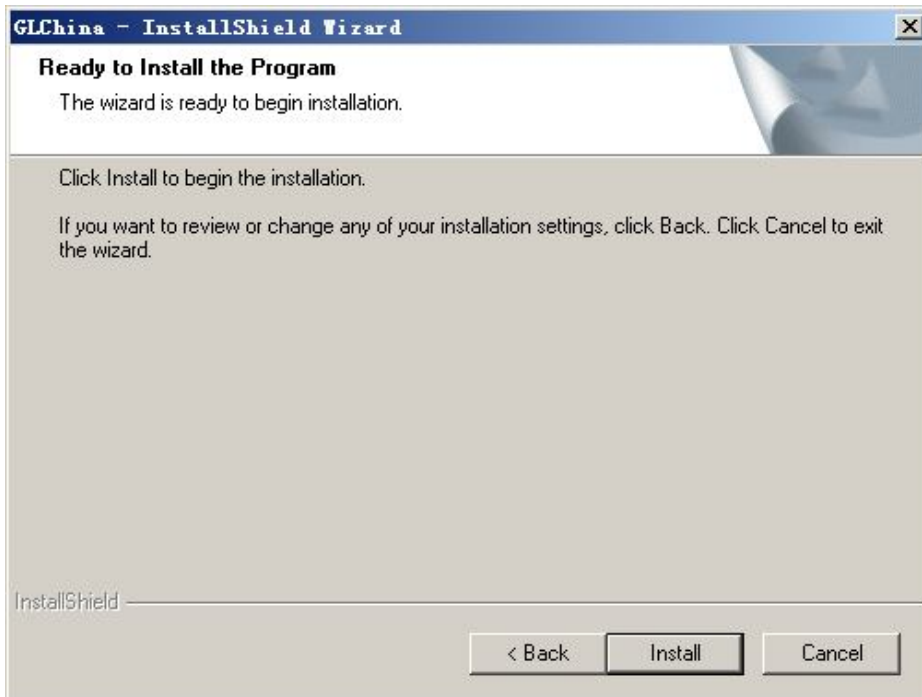
Click "install",then click "yes" to creat an icon of 'amcap' on desktop
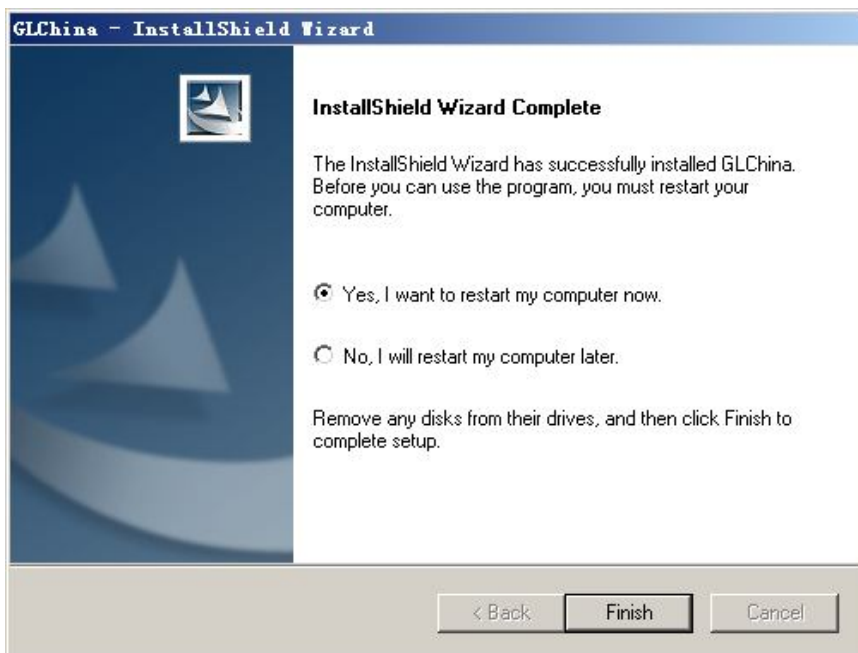
Click"Finish"to complete

2 Measurement installations:

1.Click Measurement **,** It show as followings

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2 Click "next" to continue, as followings
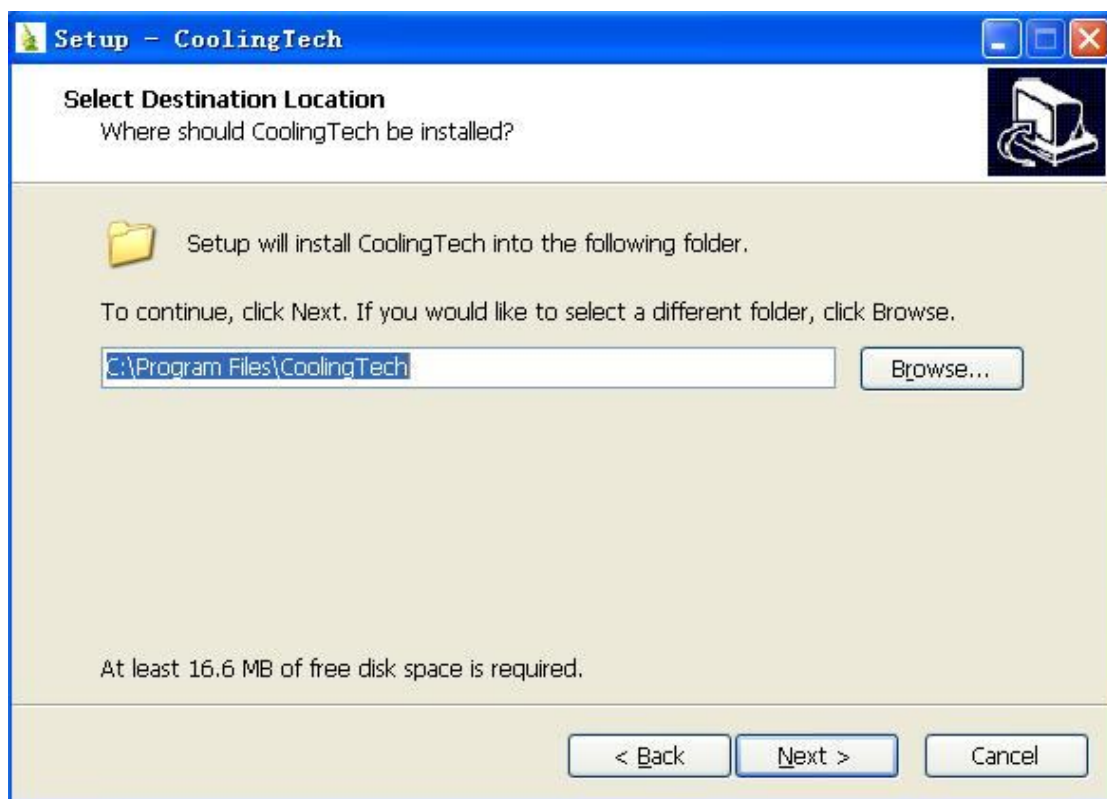
3. Click "next" to continue, as followings
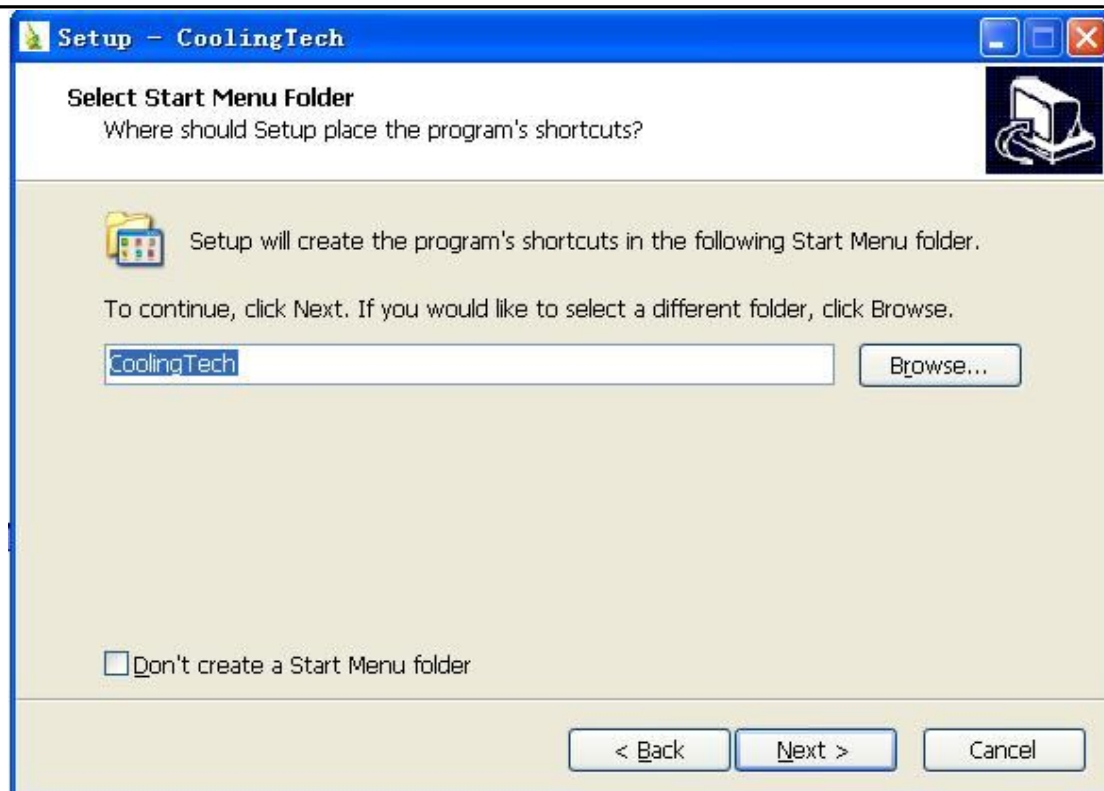
4. Click "next" to continue, as followings
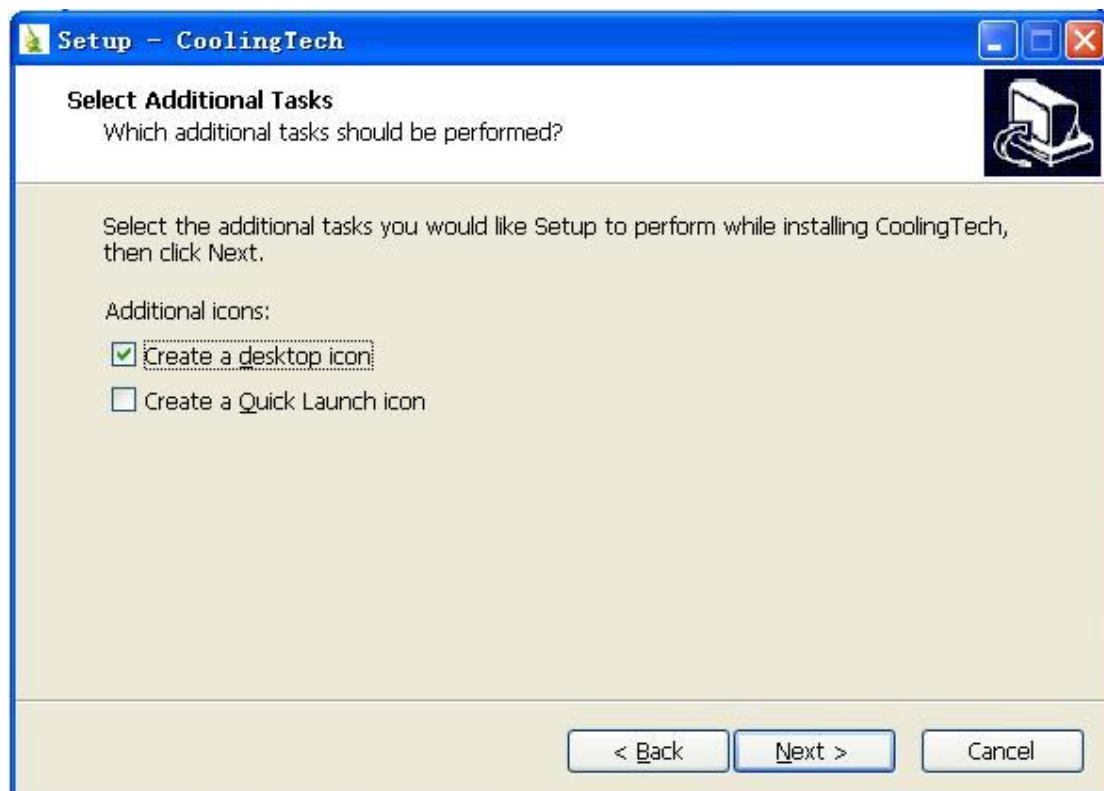
5. Click "next" to continue, as followings

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6 Click "Install" to continue, as followings
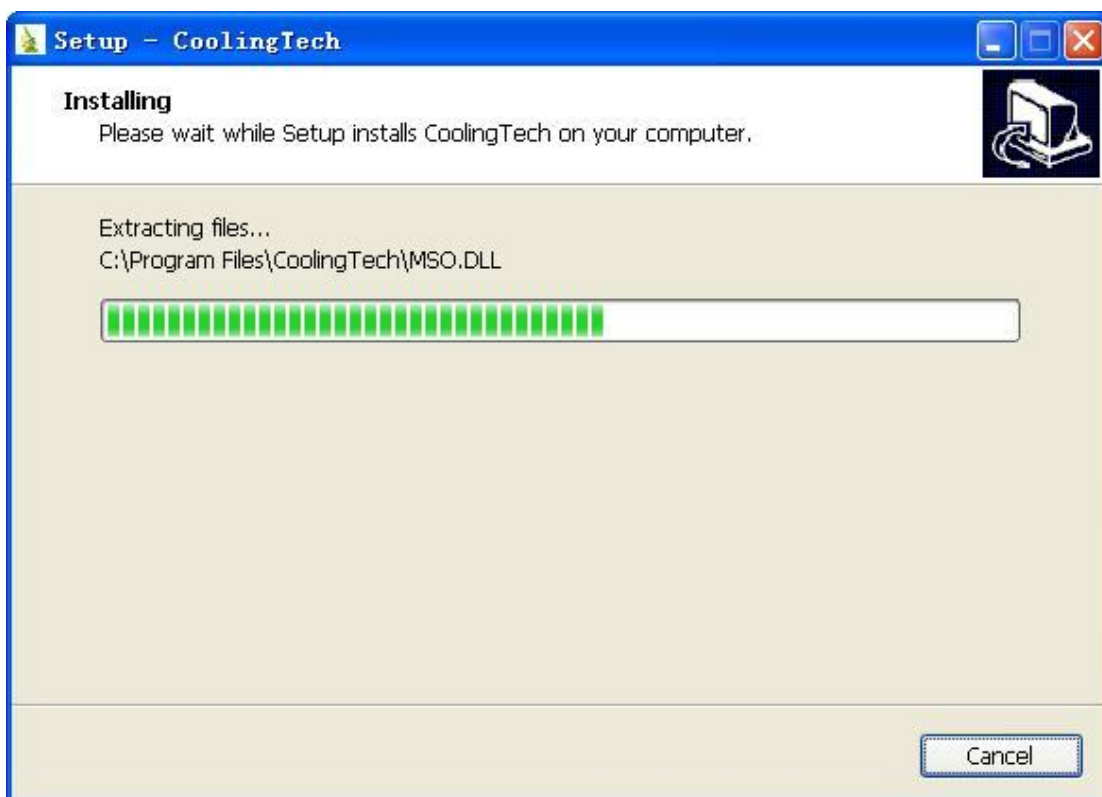
Wait a few seconds while the installation taking place.

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7.Click "Finish"   and the installation completes.

8.After the installation completes, double click   at computer desktop to
  start using the software.
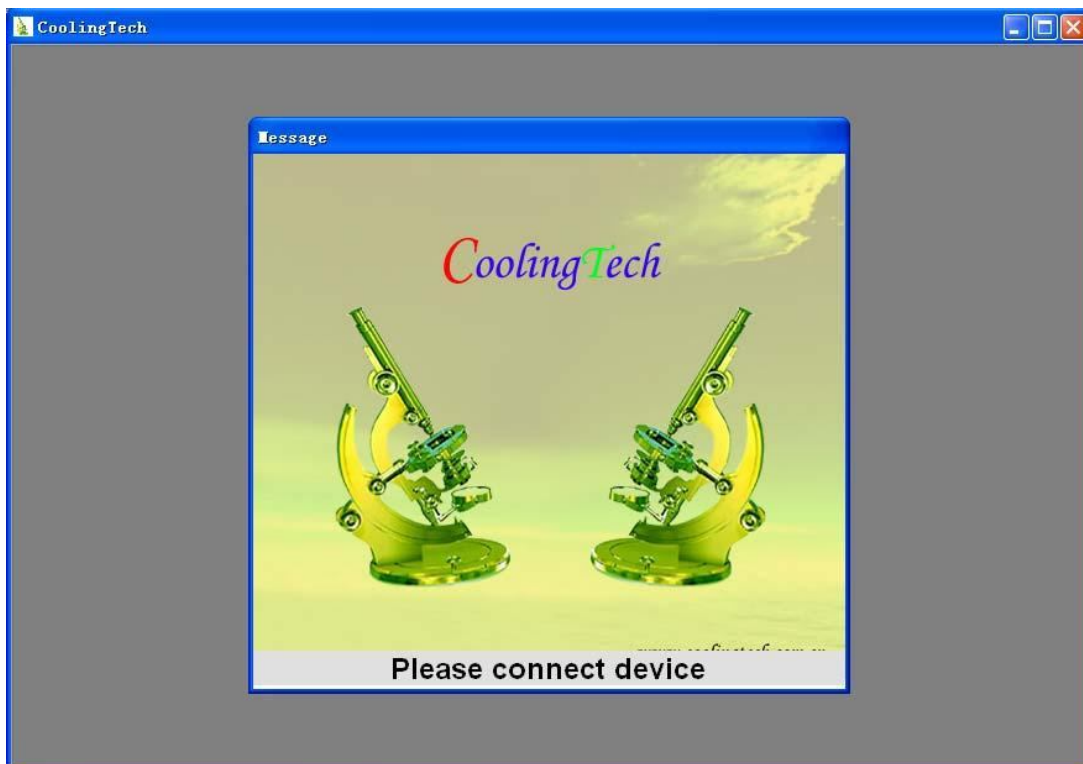
Plug-in the devices, Display in operation window

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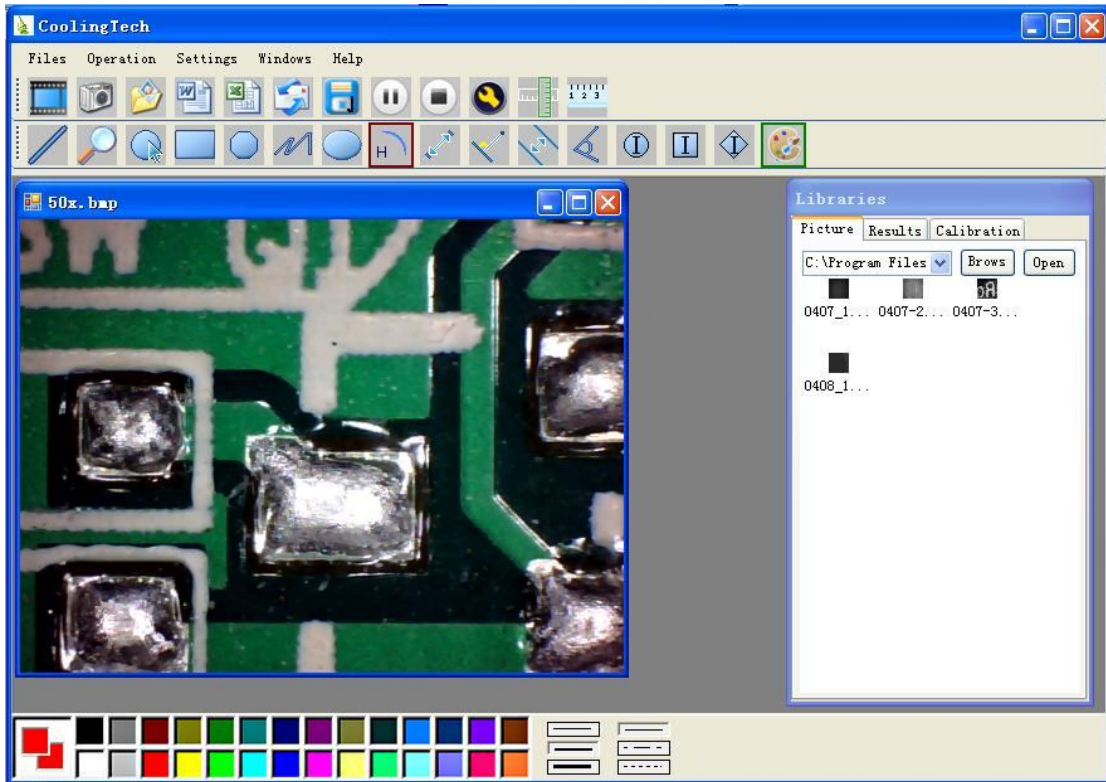
9 Click ,open the operation system
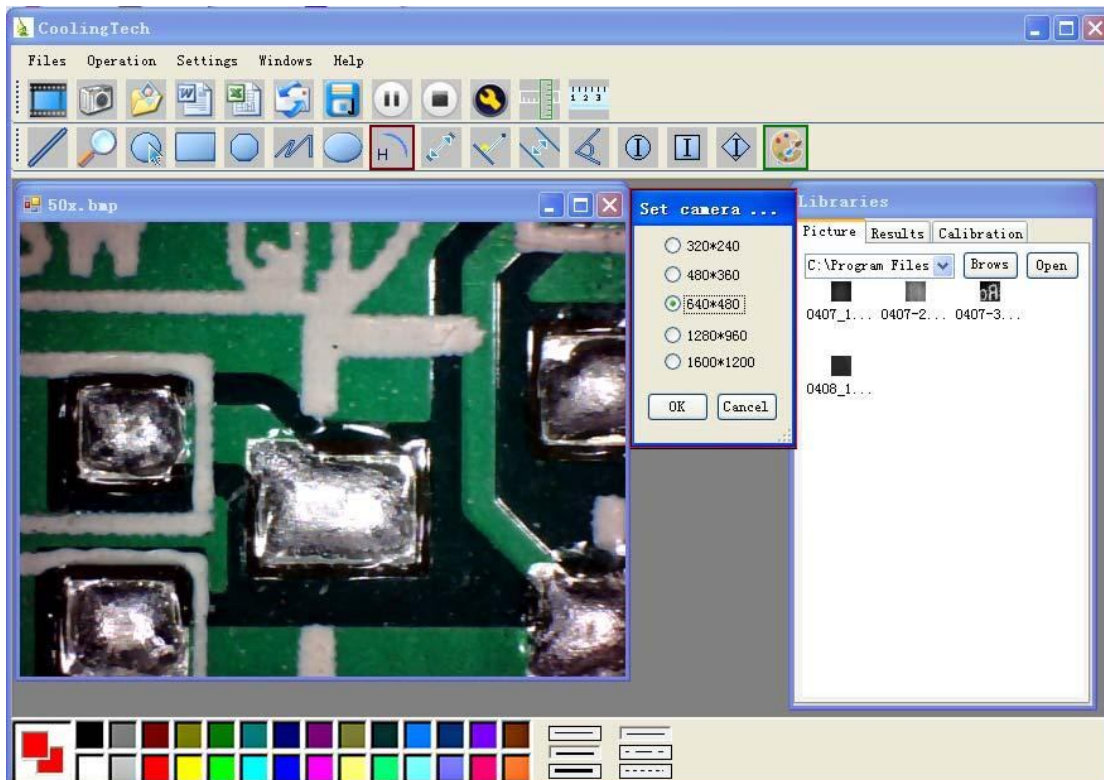
Choose the Image resolution from 320*240 to 1600*1200, default at VGA Mode640*480

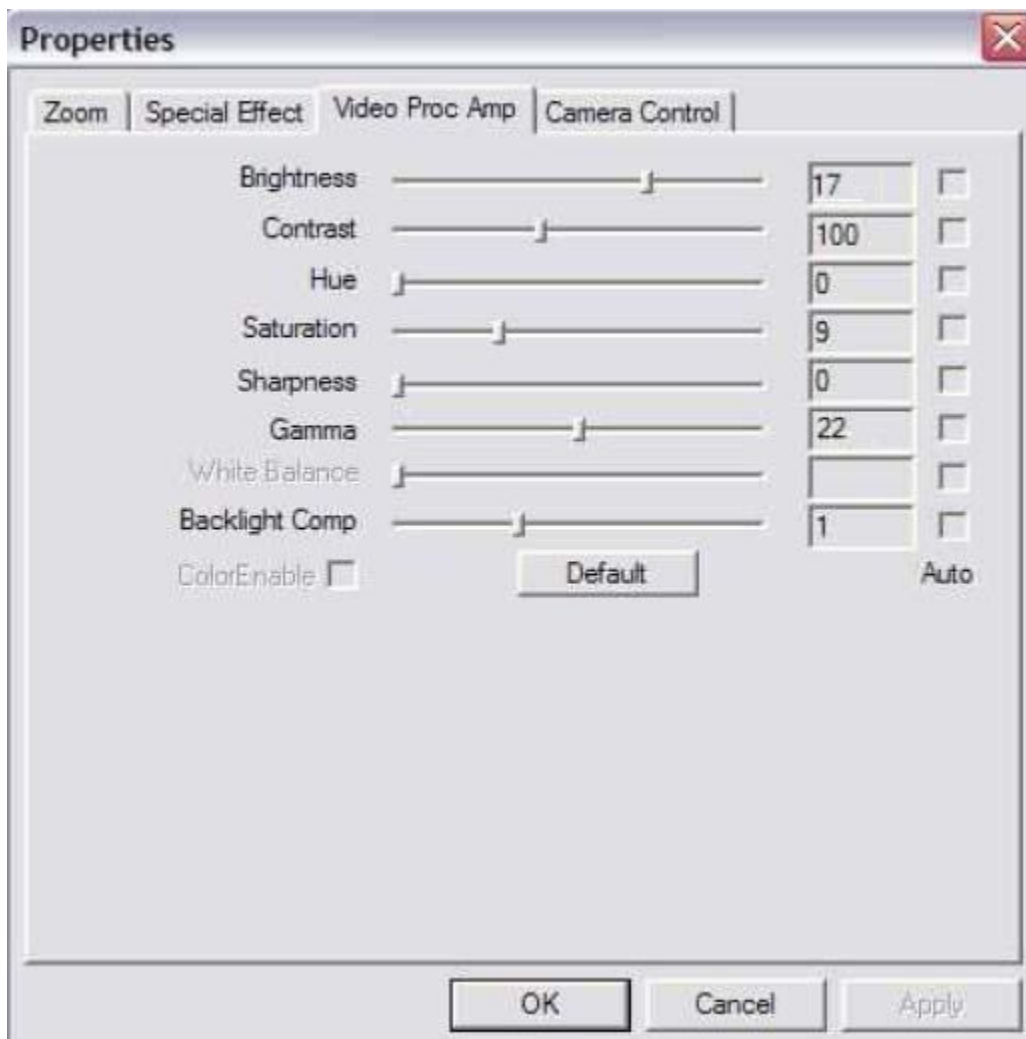10 Click to use measurement function.

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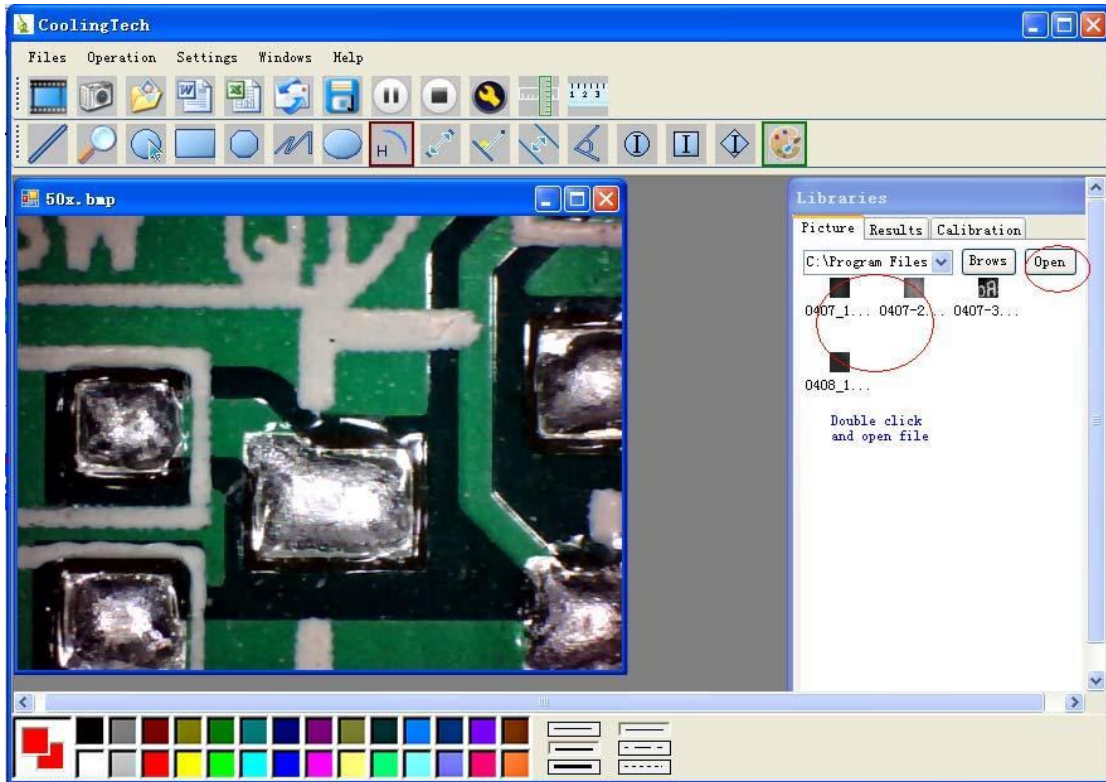
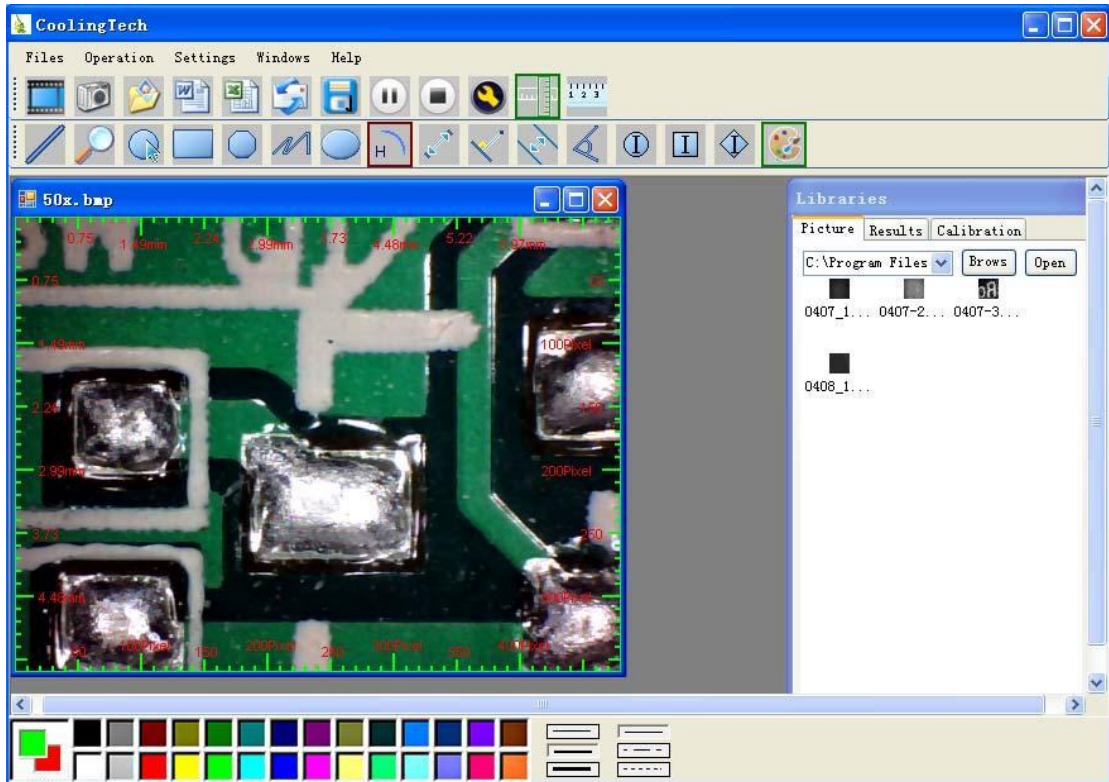11 Click to open pictures, and click to save pictures
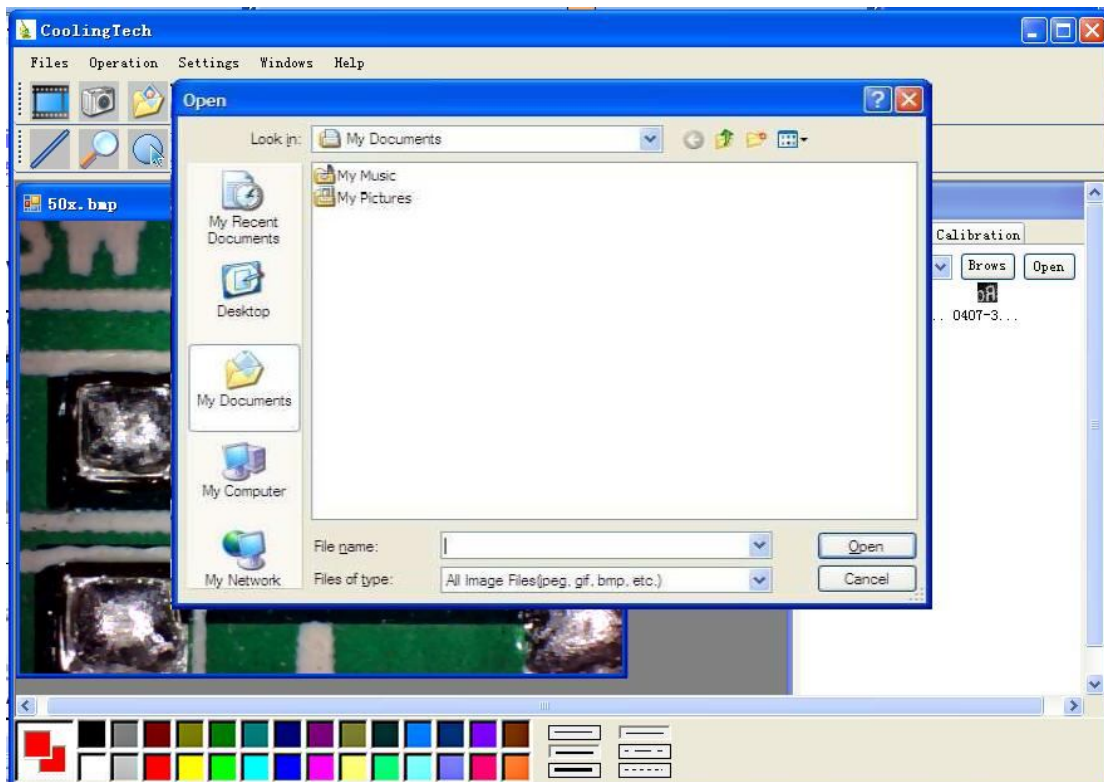
12

   Video PLAY(Pause) ,STOP

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13 Image Parameter including Image setting and special effects
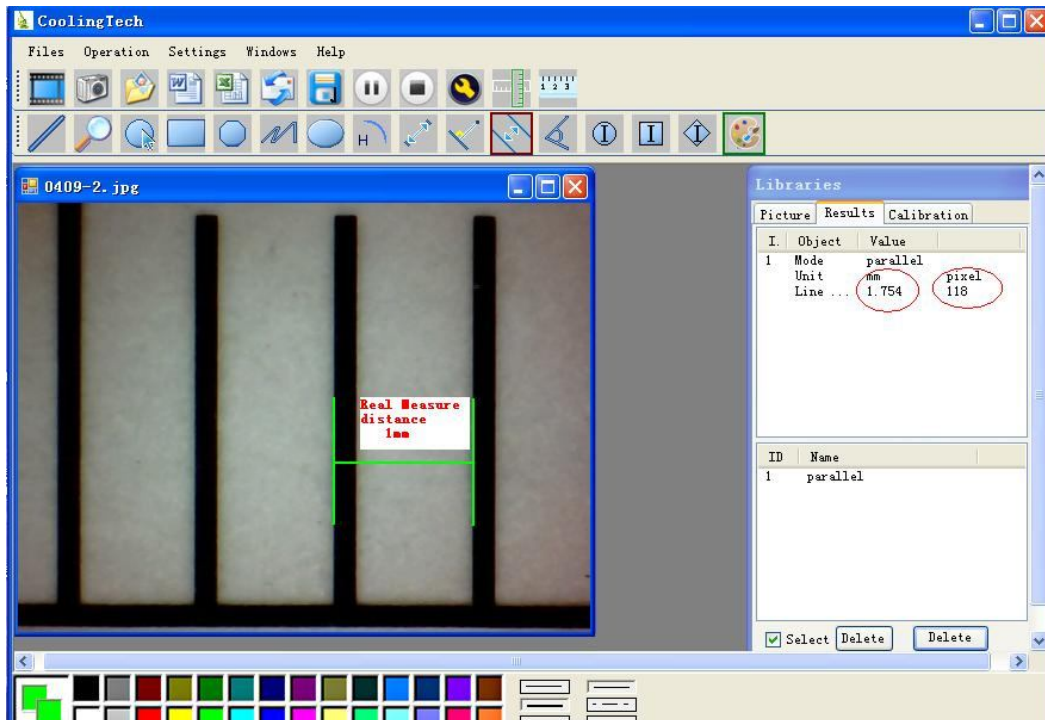

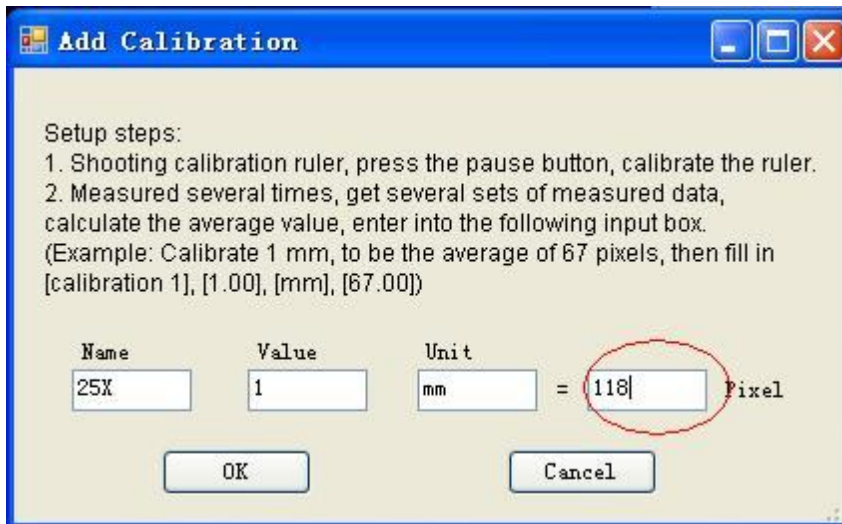
15

Magnifier

16 Click Ruler, as followings

17 Click , start calibration make sure certain accuracy.

   Our experience told us that measurement could be controlled at 99% high precision. Measure tolerance could be caused from human eye distortion and defocus. More practice is helpful to measurements.
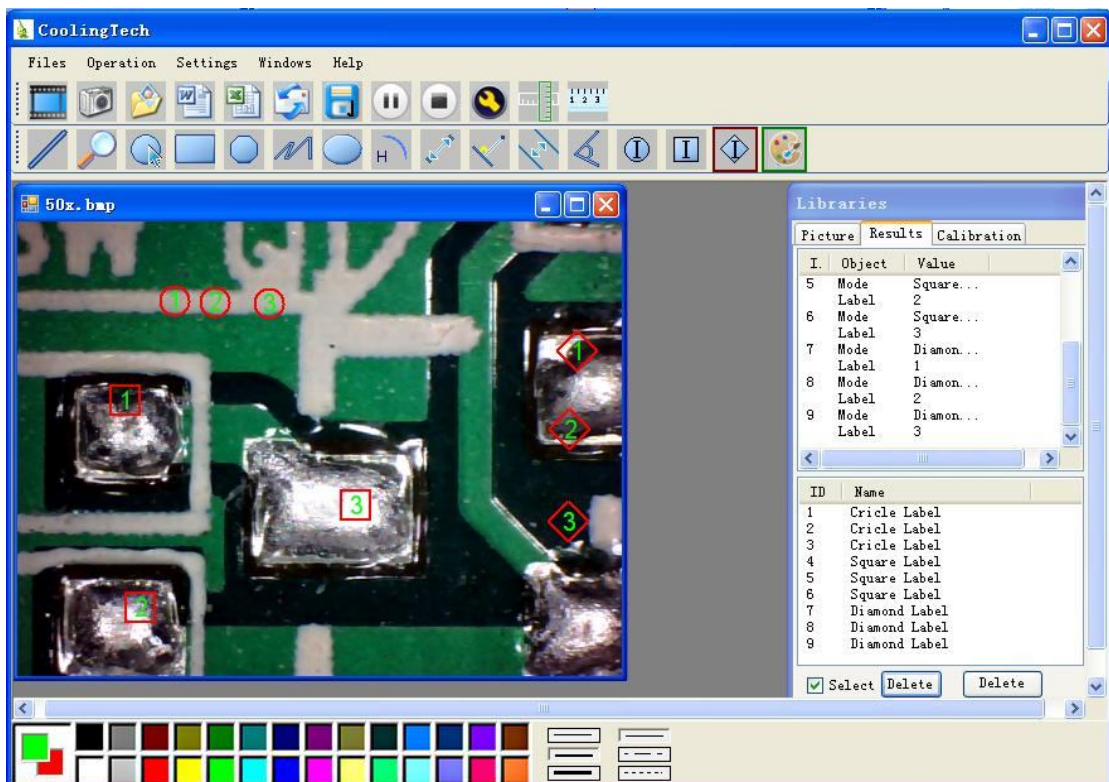

18 Key in the Measure data(Pixel),Unit, and Click' OK'

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Warning:

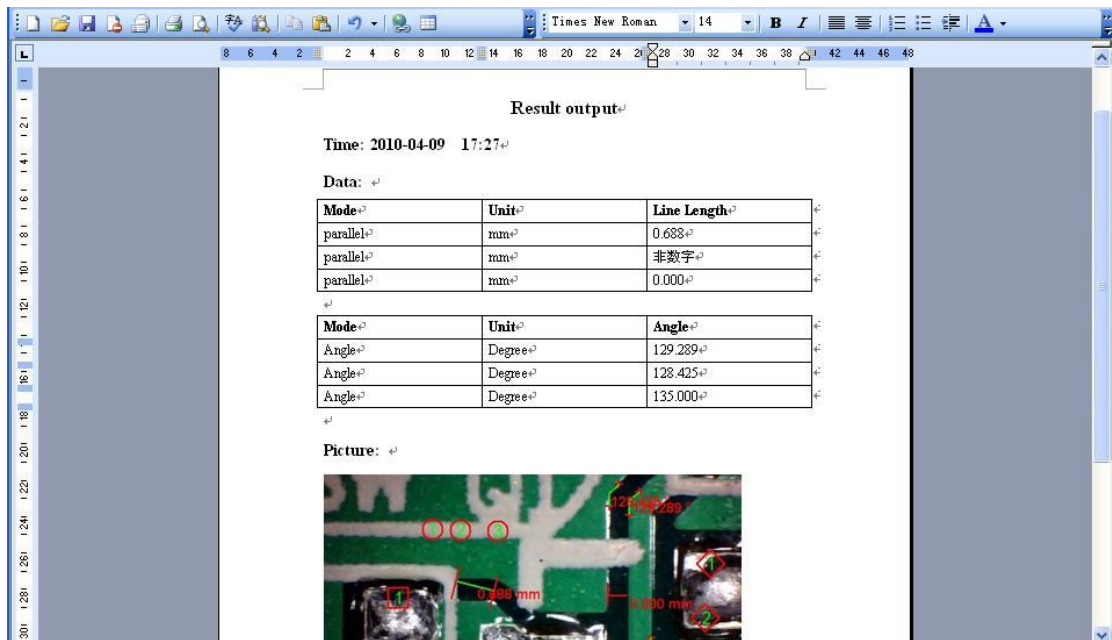**Please do calibration again once Magnification Ratio changed.**

19 Color setting of display character

20 Click to export word or excel format.

Example: Measure data under word file
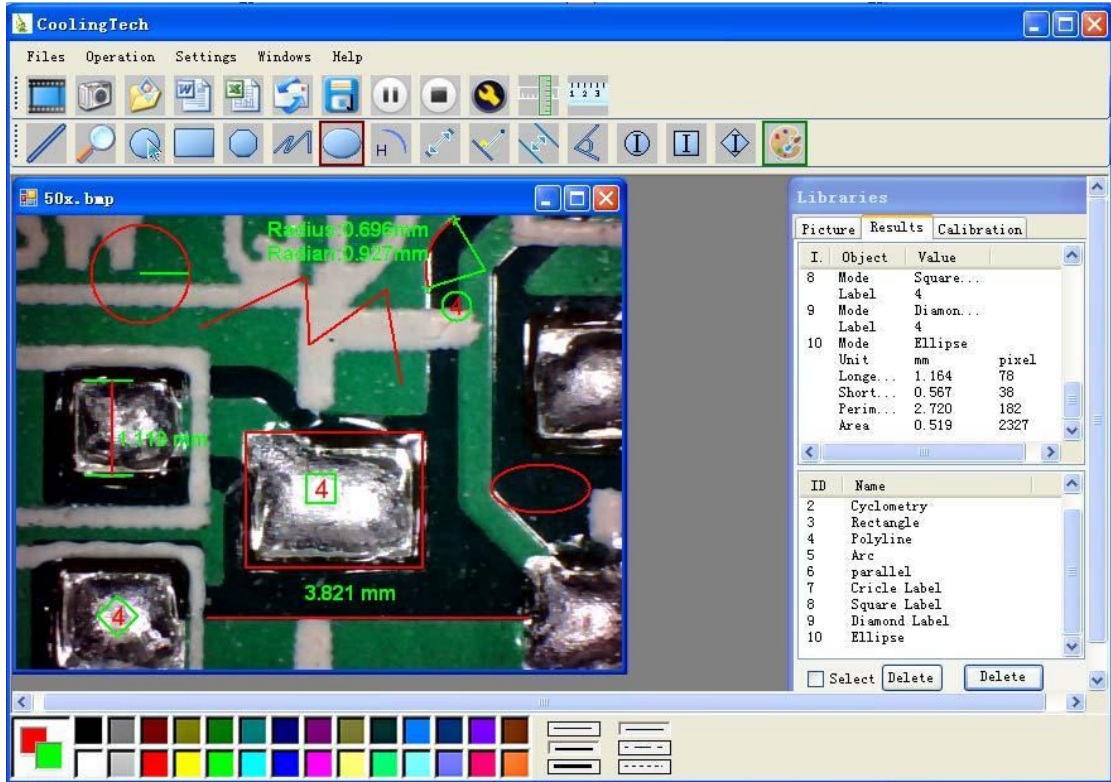

From Left to right:

Line   ring   Square   Polygon   Set-line Length

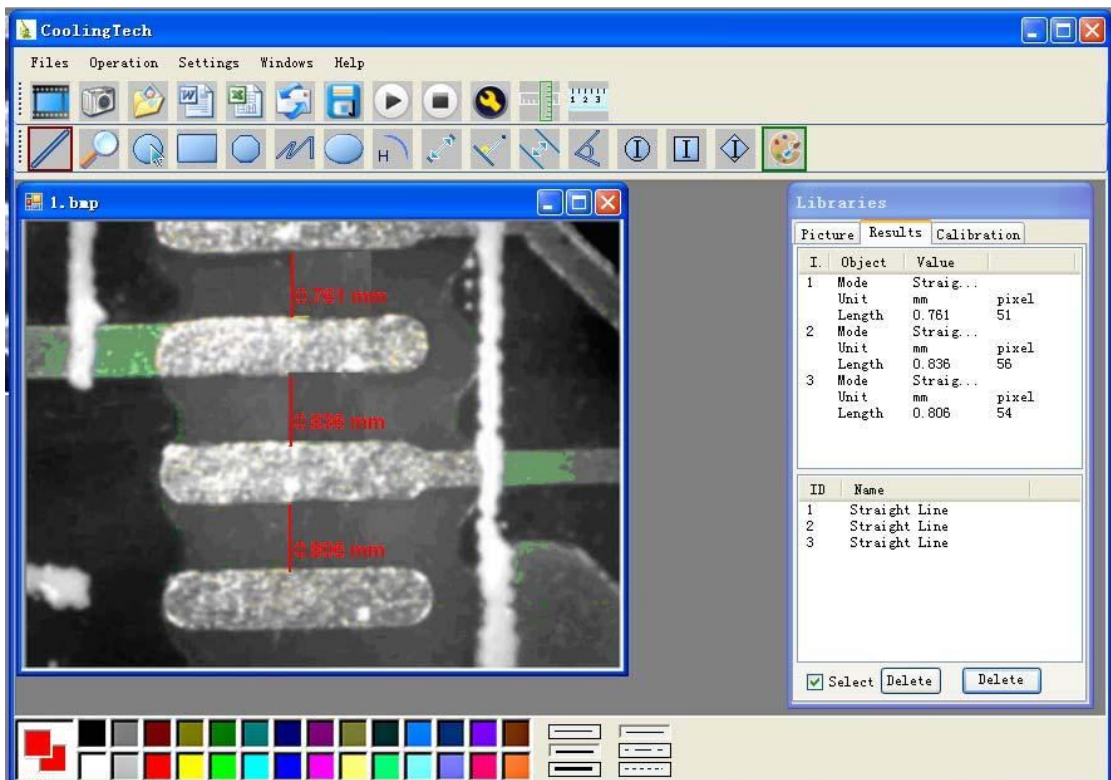Oval   Arc   Point to Point distance   Point to Line distance
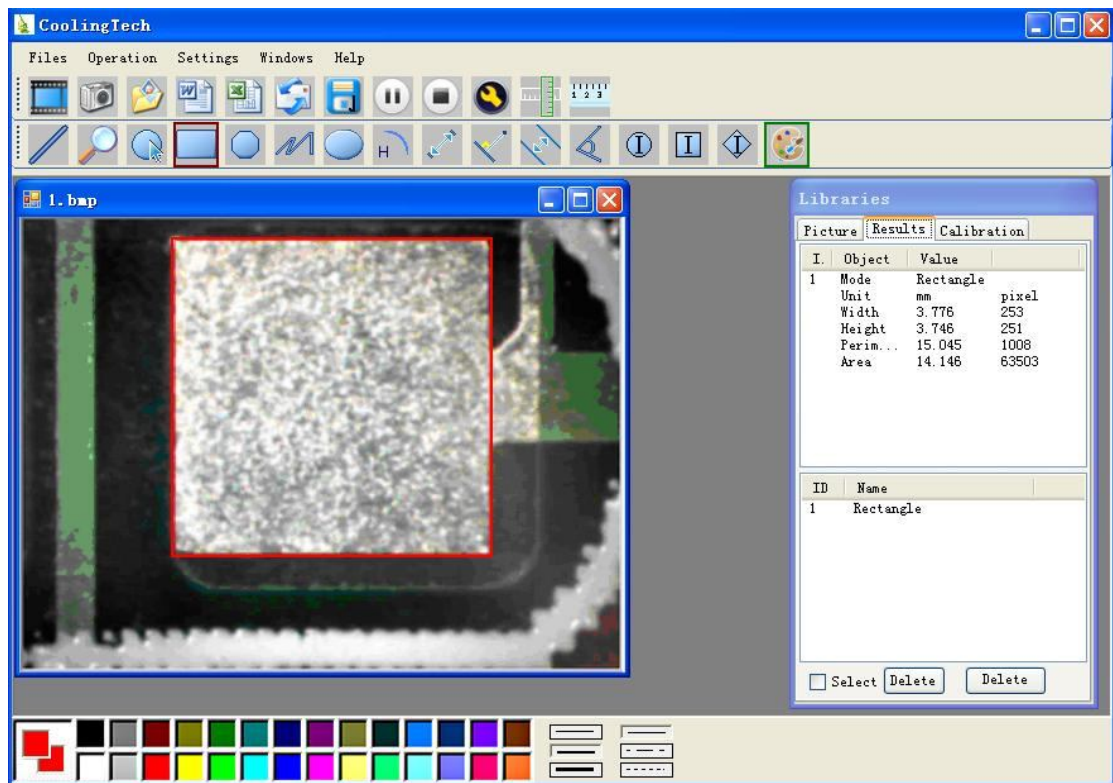
Parallel line   Angle

(as below show)

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For example 1

Line measurement:

For example 2
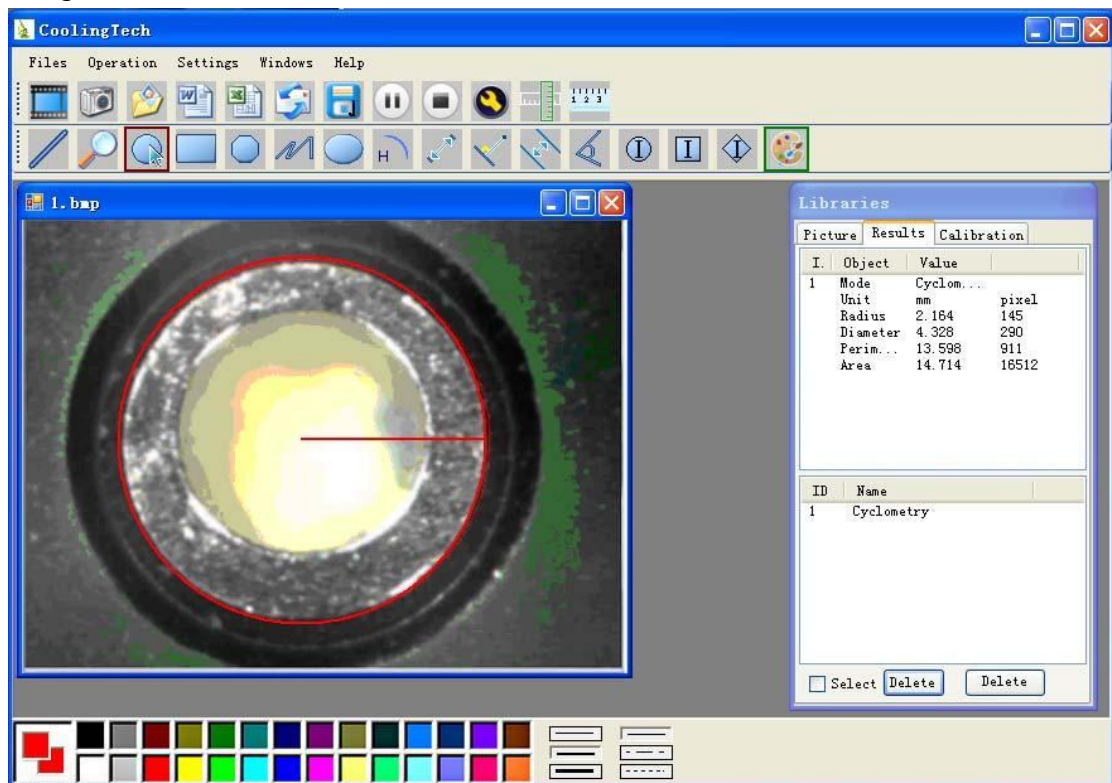
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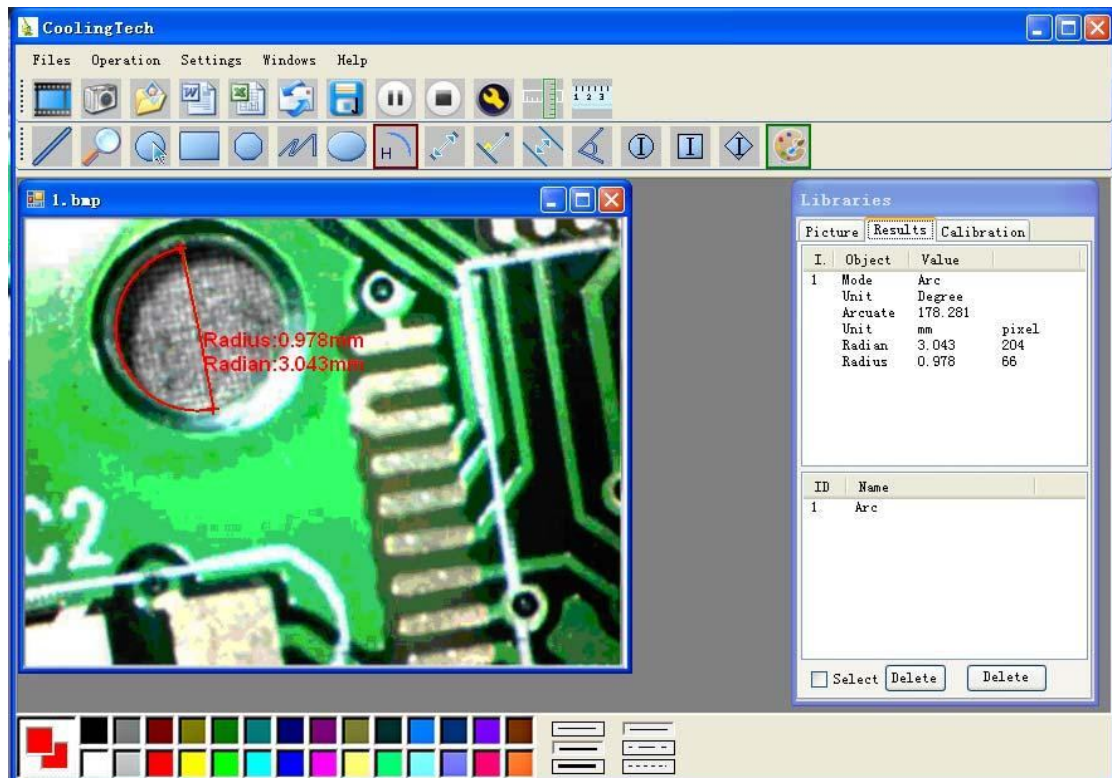
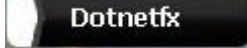Rectangular measurements:

For example3

Ring measurements:

For example 4

Arc measurements:

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3Please click to Continue when the NET Framework2.0 is necessary