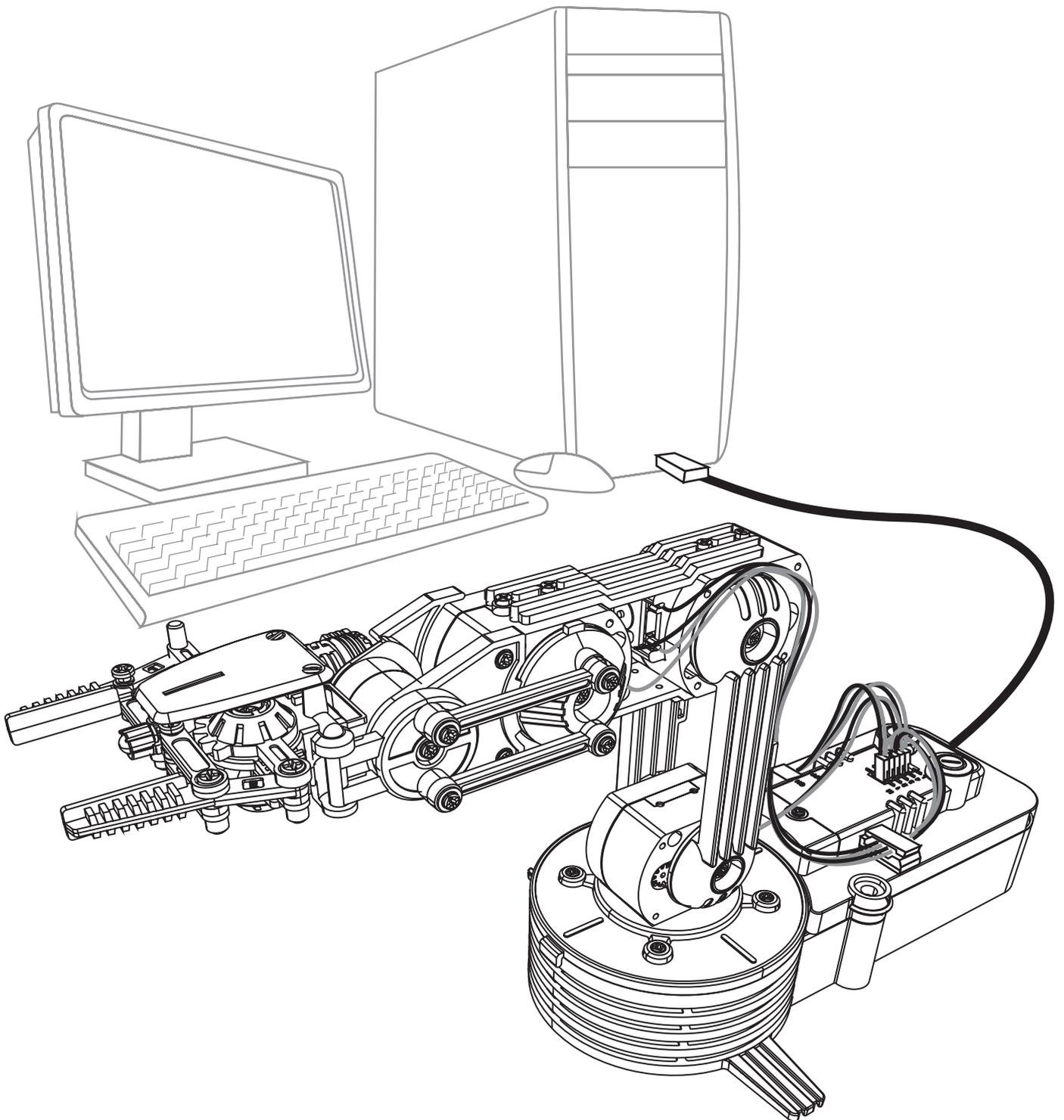


ROBOTIC ARM

Robotic Arm with USB PC Interface User's Manual



Robotic Arm with USB PC Interface

User's Manual

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Product Introduction

This Robotic Arm to communicate with your personal computer through the USB port, It is compatible with Windows XP / Vista operating system. Software includes below functions.

- Basic: Use your keyboard or mouse to have real time manual control of the arm.
- Programming: Create, edit, load, or save programmable files.

It creates a fun way of learning and experimenting with your Robotic Arm through your computer.

Warning

All rights reserved, reproduction in any manner in whole or in part without permission of Velleman Components nv. is prohibited.

Caution

To prevent damage to the board, kindly avoid the following:

- ◆high humidity.
- ◆direct sunlight.
- ◆static electricity.
- ◆reach of small children.
- ◆liquid or flammable objects.

Never disassemble or reassemble the interface board as it may cause short circuit, injury or electric shock.

1.SET UP (For Windows XP)

1-1.Hardware and system requirements

OS : Windows XP

CPU : Pentium3, 1.0GHz or higher

Memory : 256MB or higher

Hardware Disk Space : 100MB or more

Display : Super VGA (800x600) or higher

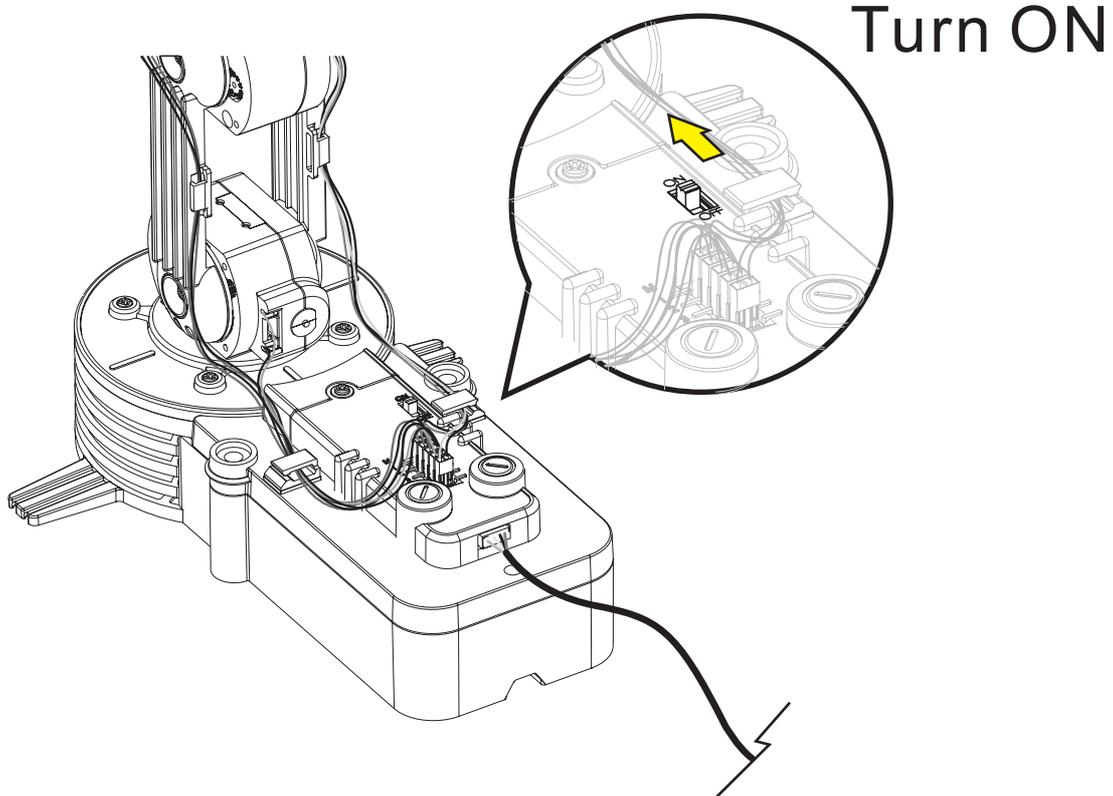
Color monitor with high color 16 bits or higher

1-2.Install USB Driver

A.Insert the disk into your CD-ROM drive.

B.Connect Robotic Arm and PC with the USB cable.

C.Turn ON the Robotic Arm.

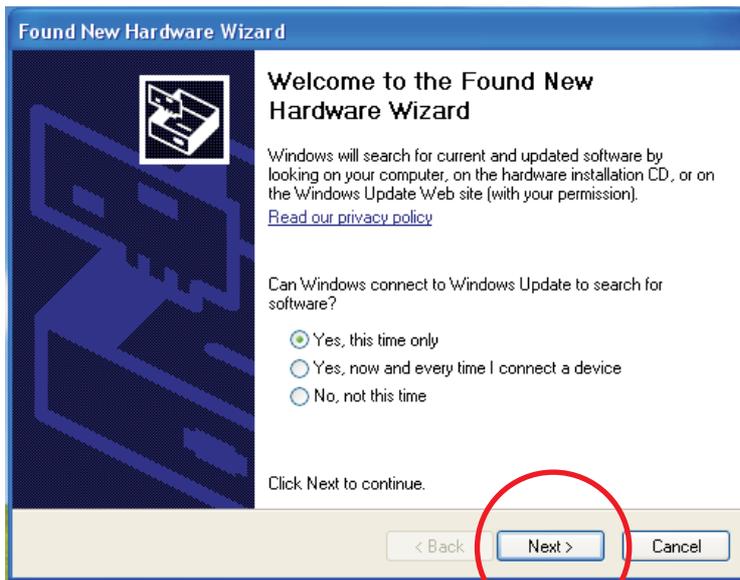


D. Install USB Driver.

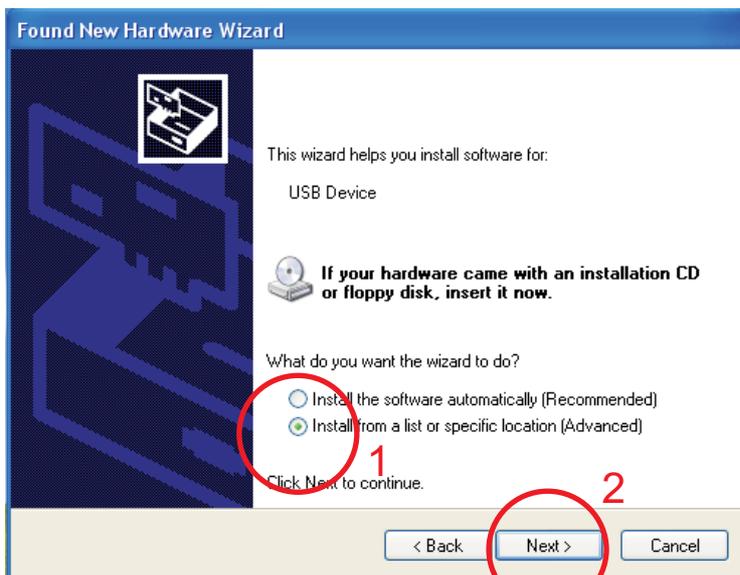
Step1 (If this message does not show on your screen then go to Troubleshooting 4-1.)



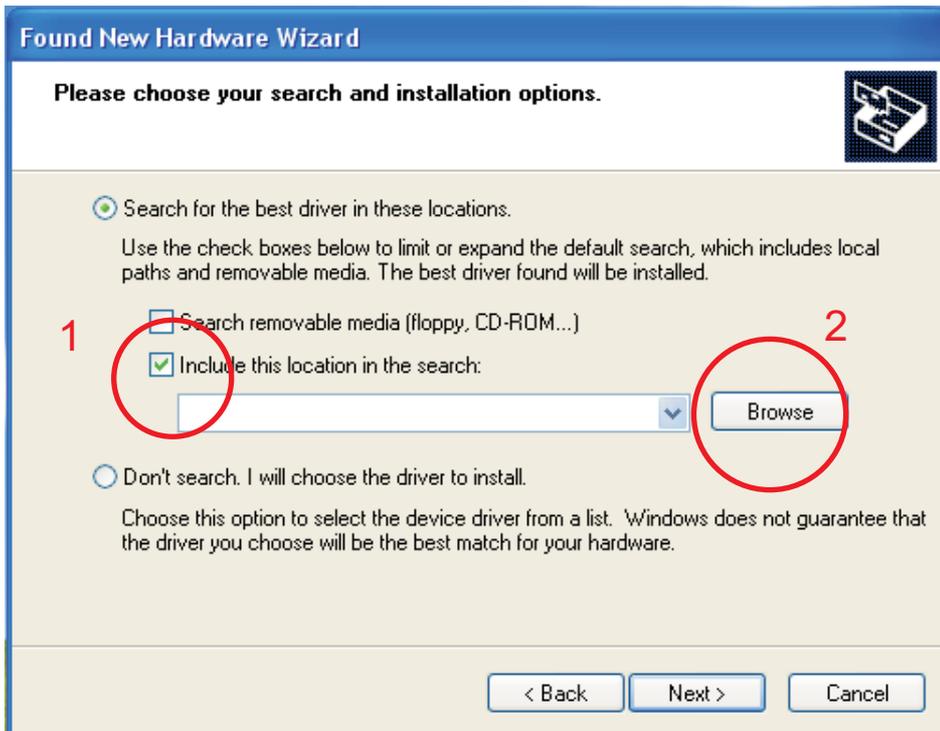
Step2 (If this window does not show on your screen then go straight to step 3.)



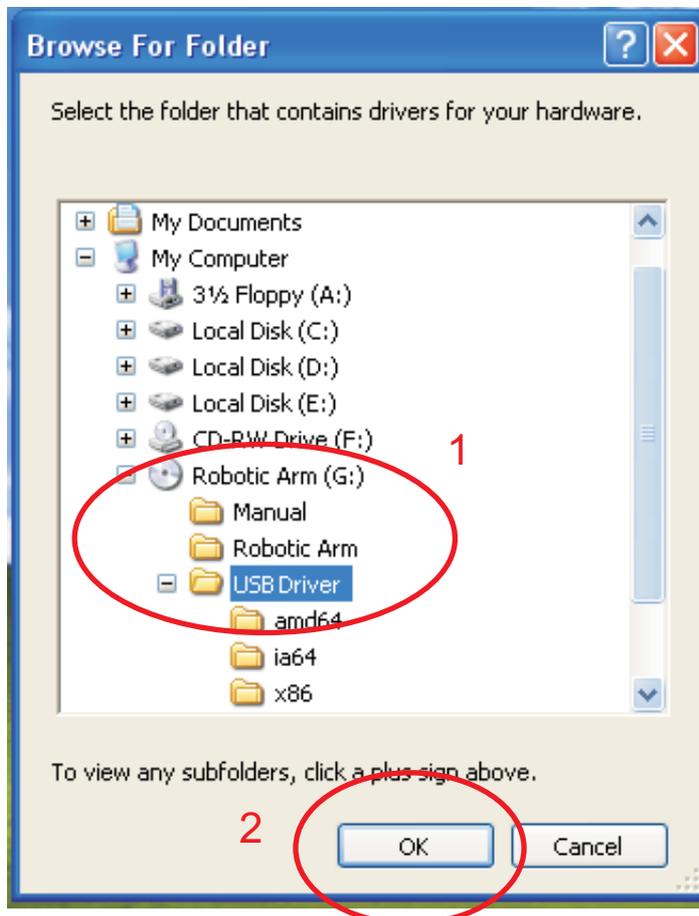
Step3



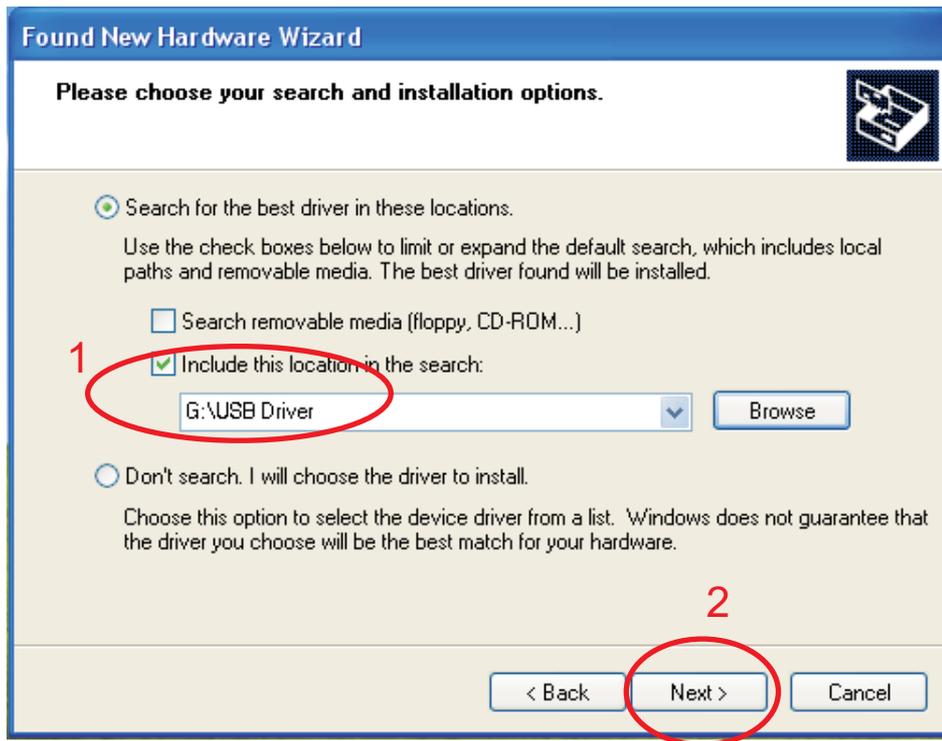
Step4 Browse...



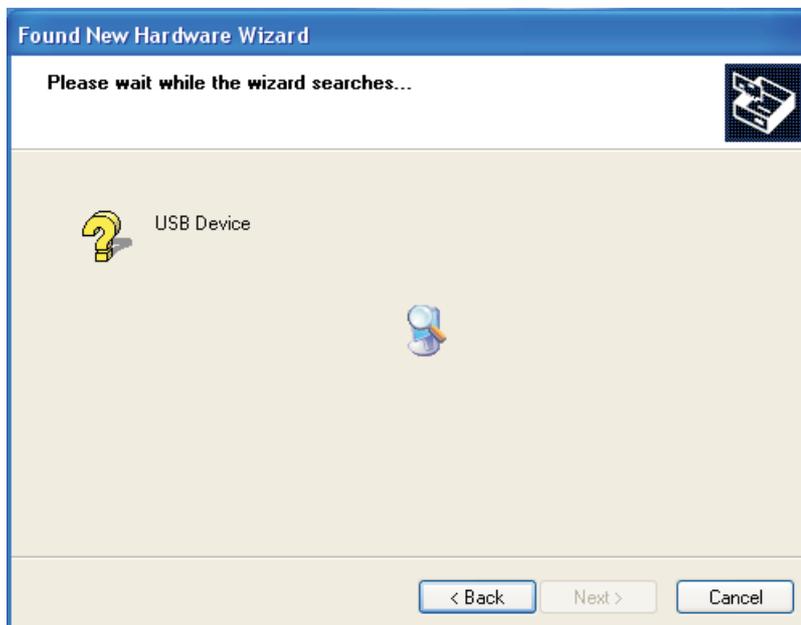
Step5 Choose your CD-ROM and USB Driver folder.



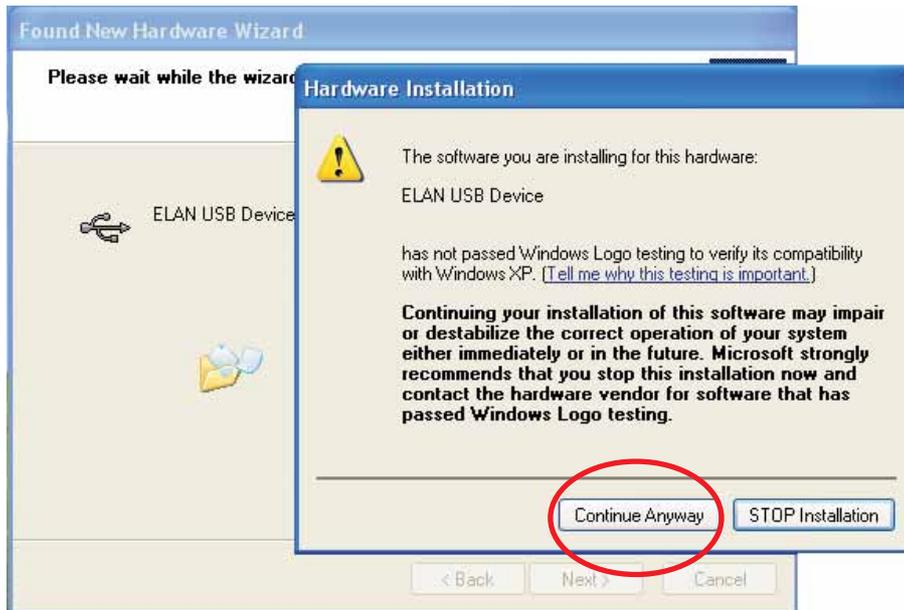
Step6 Check the path and go Next.



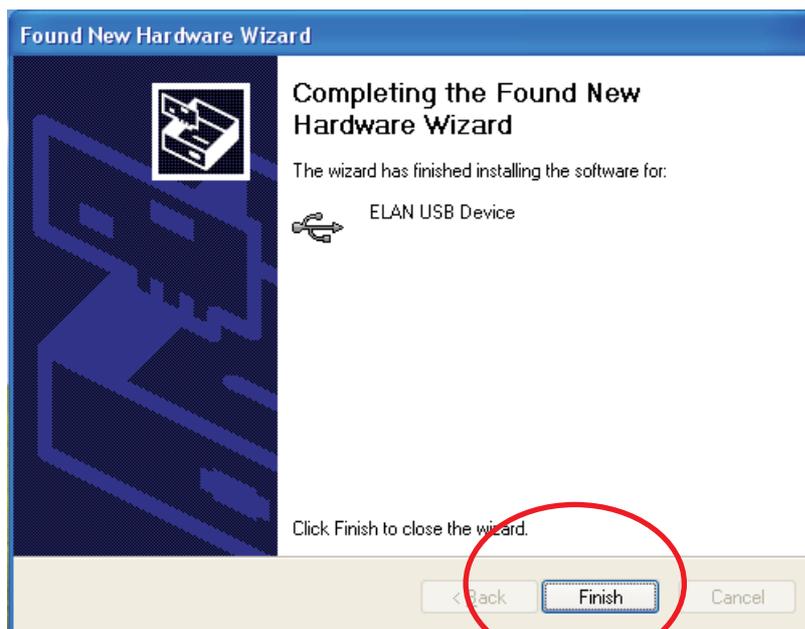
Step7 wizard searches..



Step8 Continue Anyway



Step9 Finish USB DRIVER install.

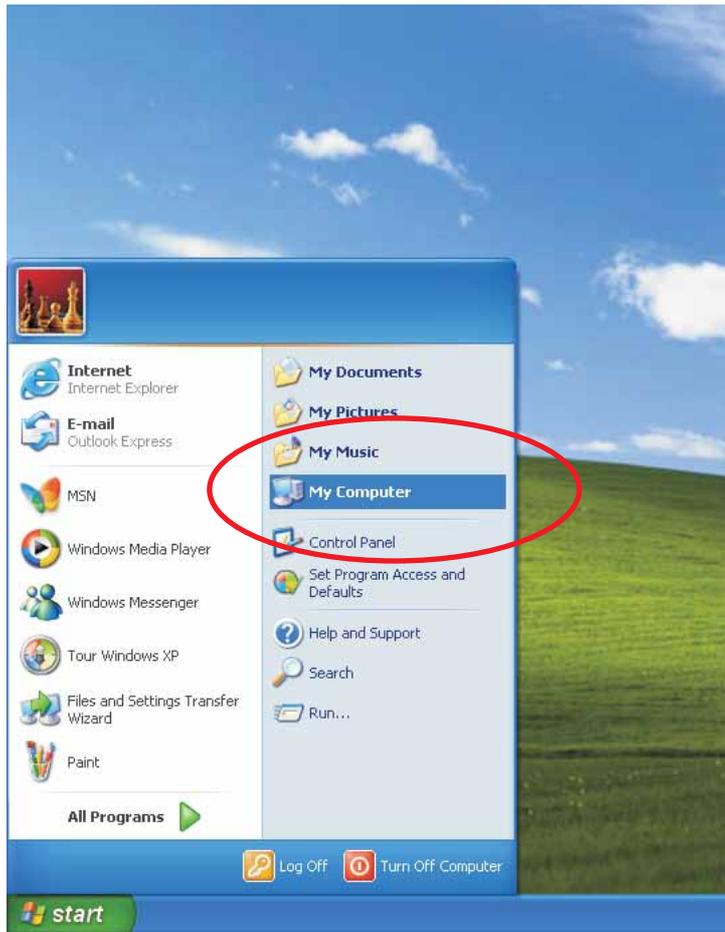


Step10 Showing Below of the screen.

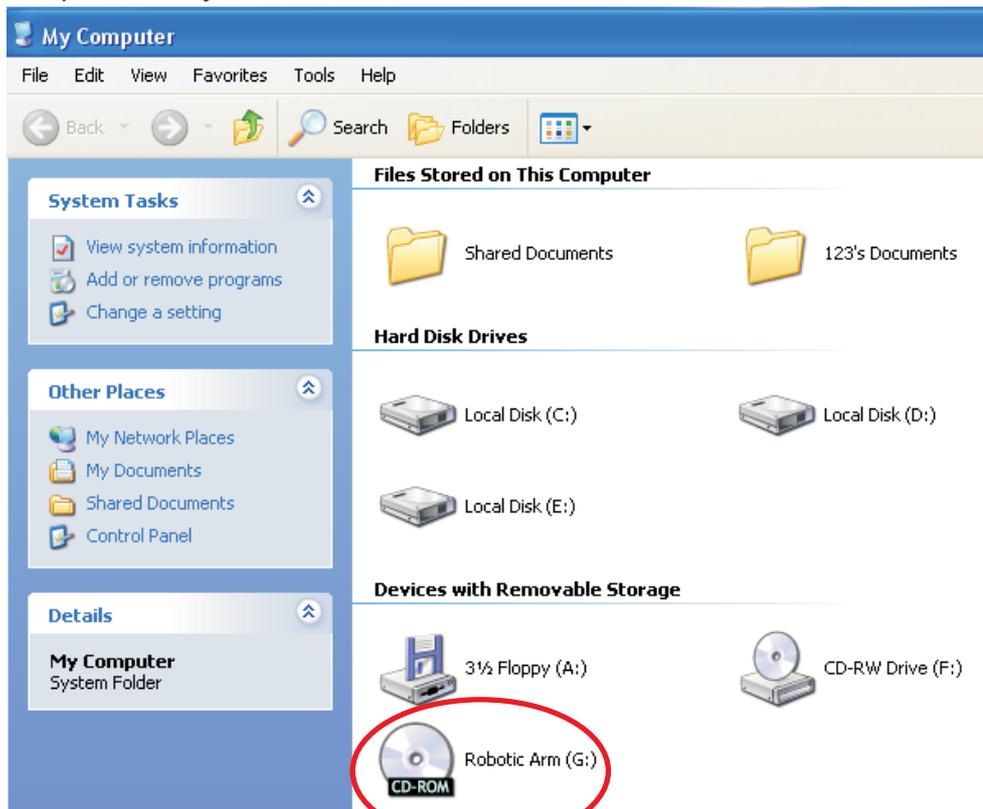


1-3. Install MAIN PROGRAM

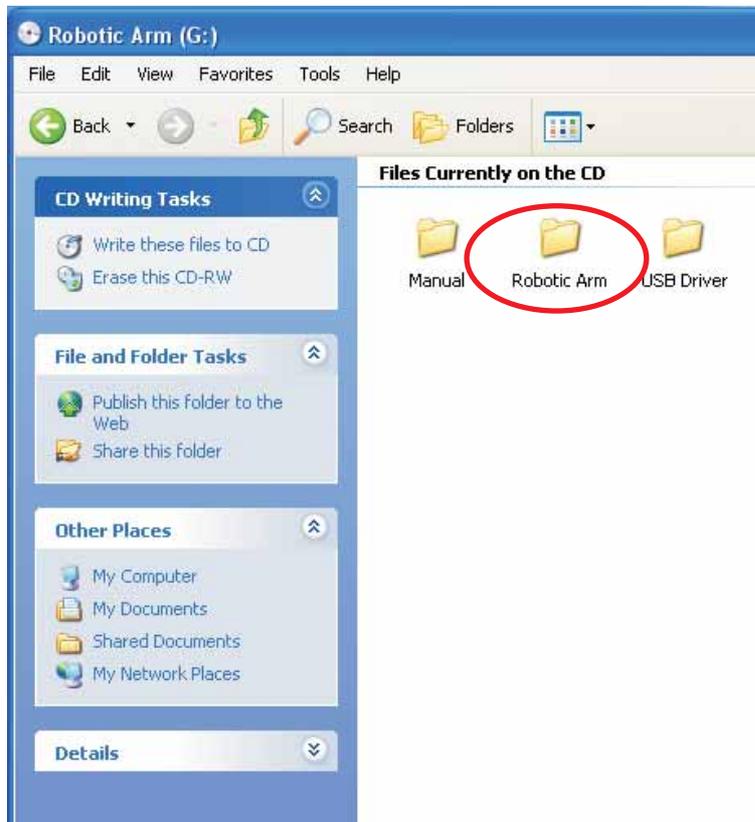
Step1 Choose "My Computer".



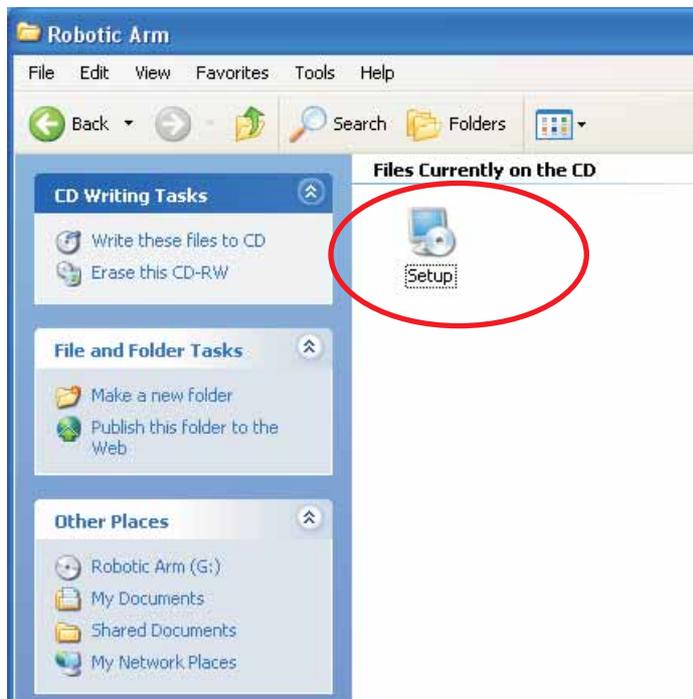
Step2 Click your CD-ROM icon.



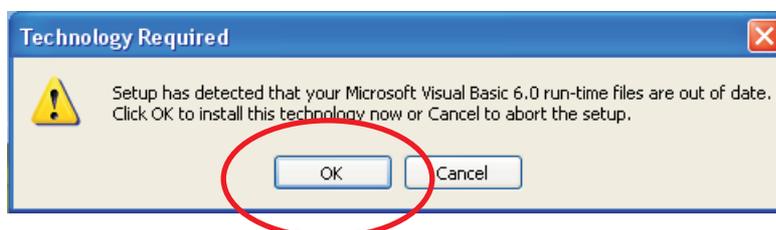
Step3 Choose Robotic Arm folder.



Step4 Click "setup" icon.



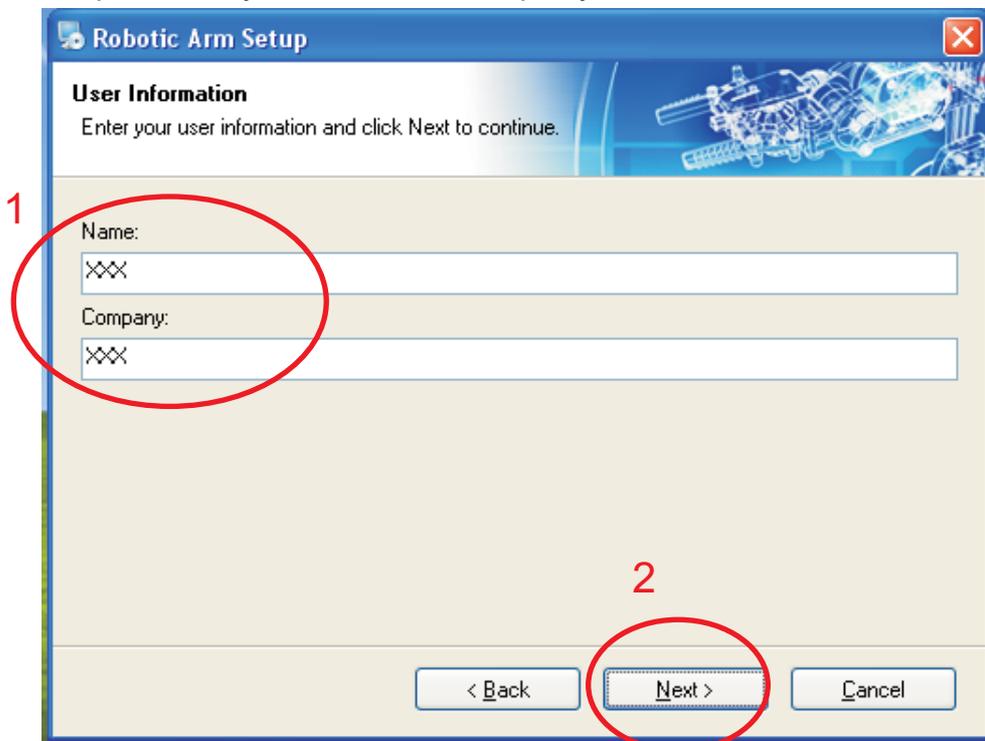
Step5 Click "OK" to continue.



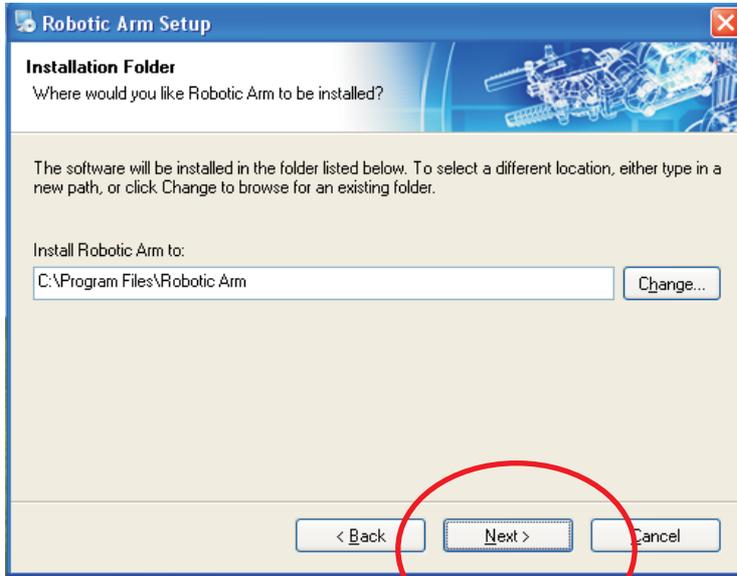
Step6 Click "Next" to continue.



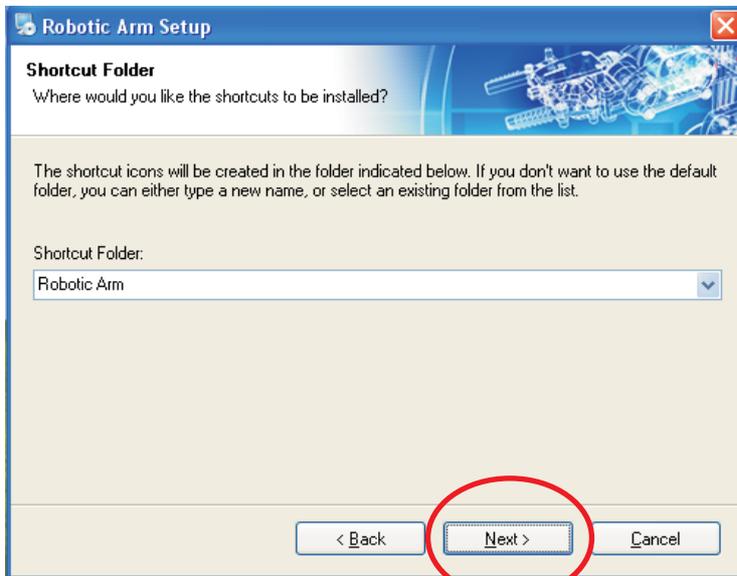
Step7 Fill in your name or company and click "Next" to continue.



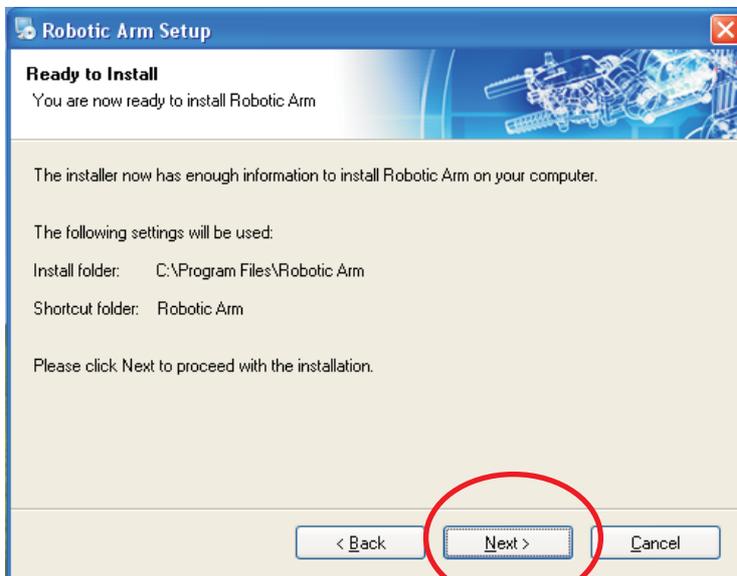
Step8 Click "Next" to continue.



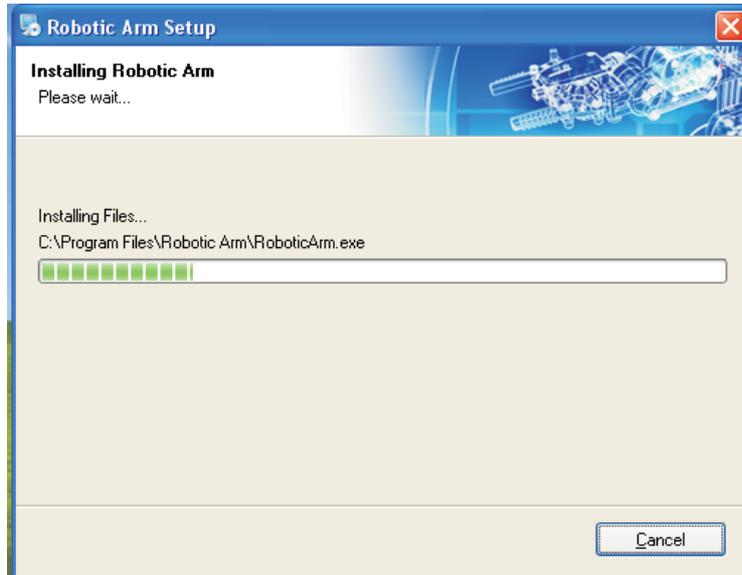
Step9 Click "Next" to continue.



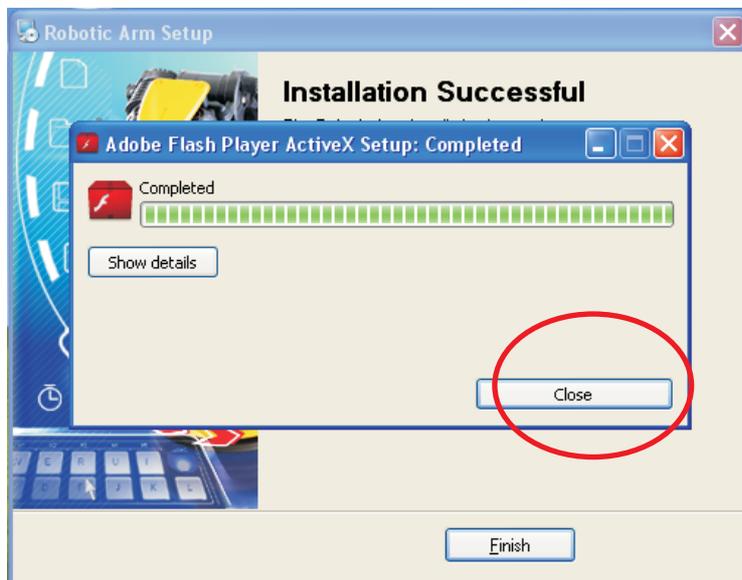
Step10 Click "Next" to continue.



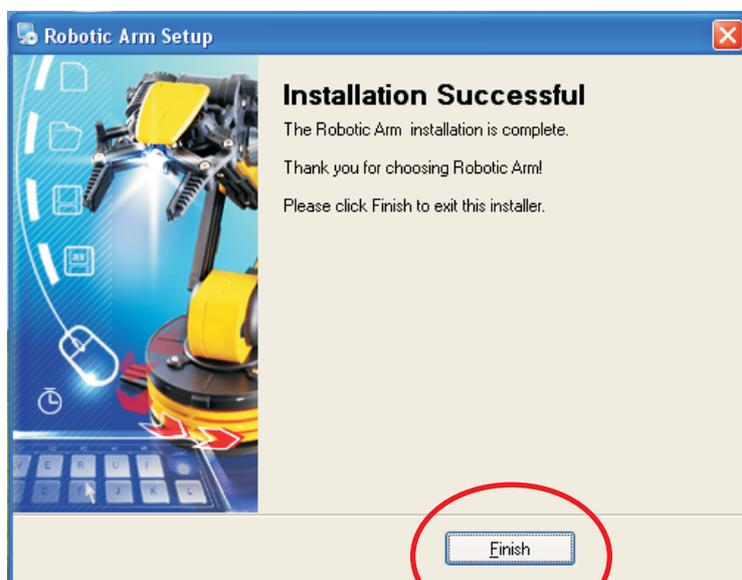
Step11 Wait...



Step12 Click "Close" to continue.



Step13 Finish setup



2.SET UP (For Windows VISTA)

2-1.Hardware and system requirements

OS : Windows VISTA

CPU : Pentium3, 1.0GHz or higher

Memory : 256MB or higher

Hardware Disk Space : 100MB or more

Display : Super VGA (800x600) or higher

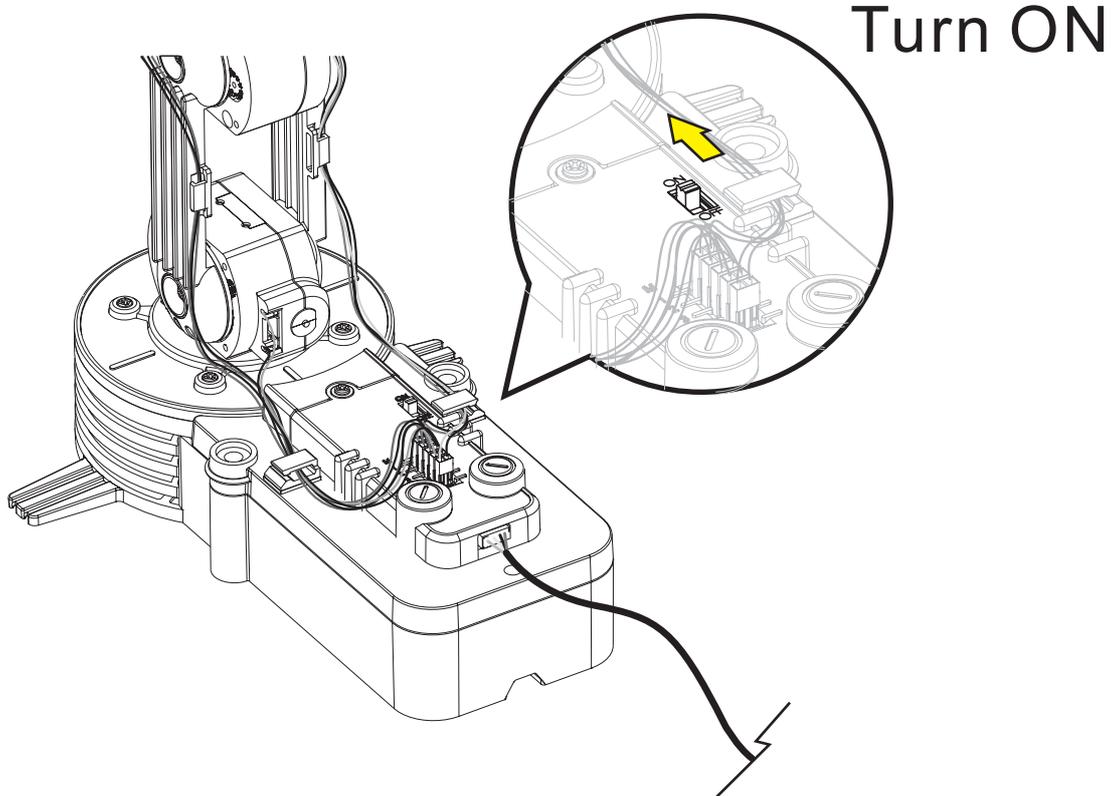
Color monitor with high color 16 bits or higher

2-2.Install USB Driver

A.Insert the disk into your CD-ROM drive.

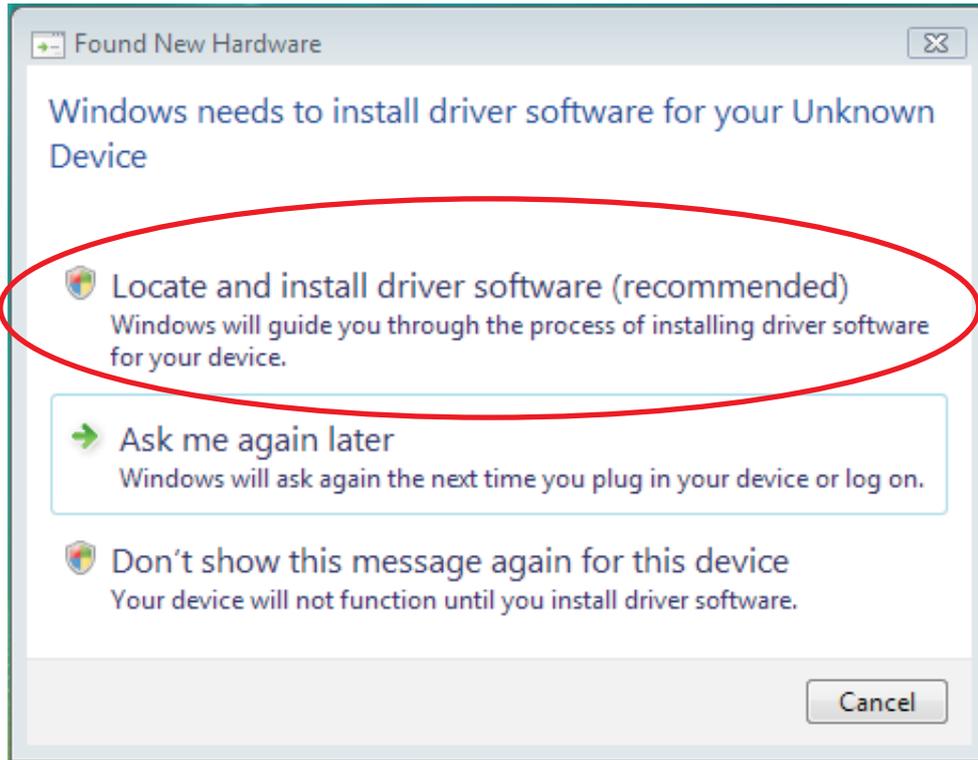
B.Connect Robotic Arm and PC with the USB cable.

C.Turn ON the Robotic Arm.

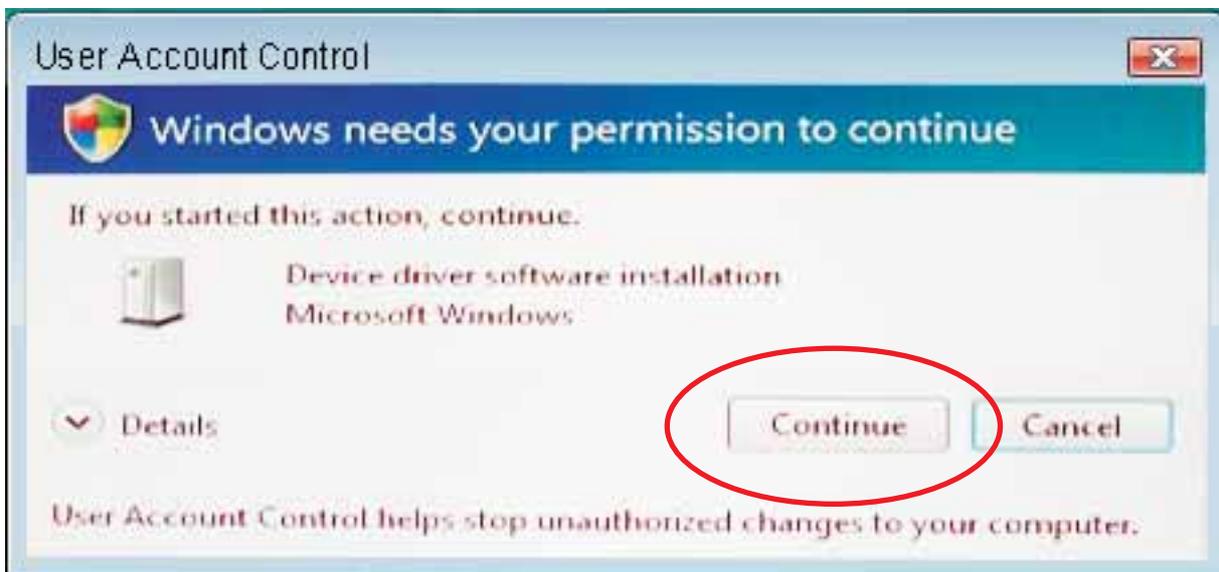


D. Install USB Driver.

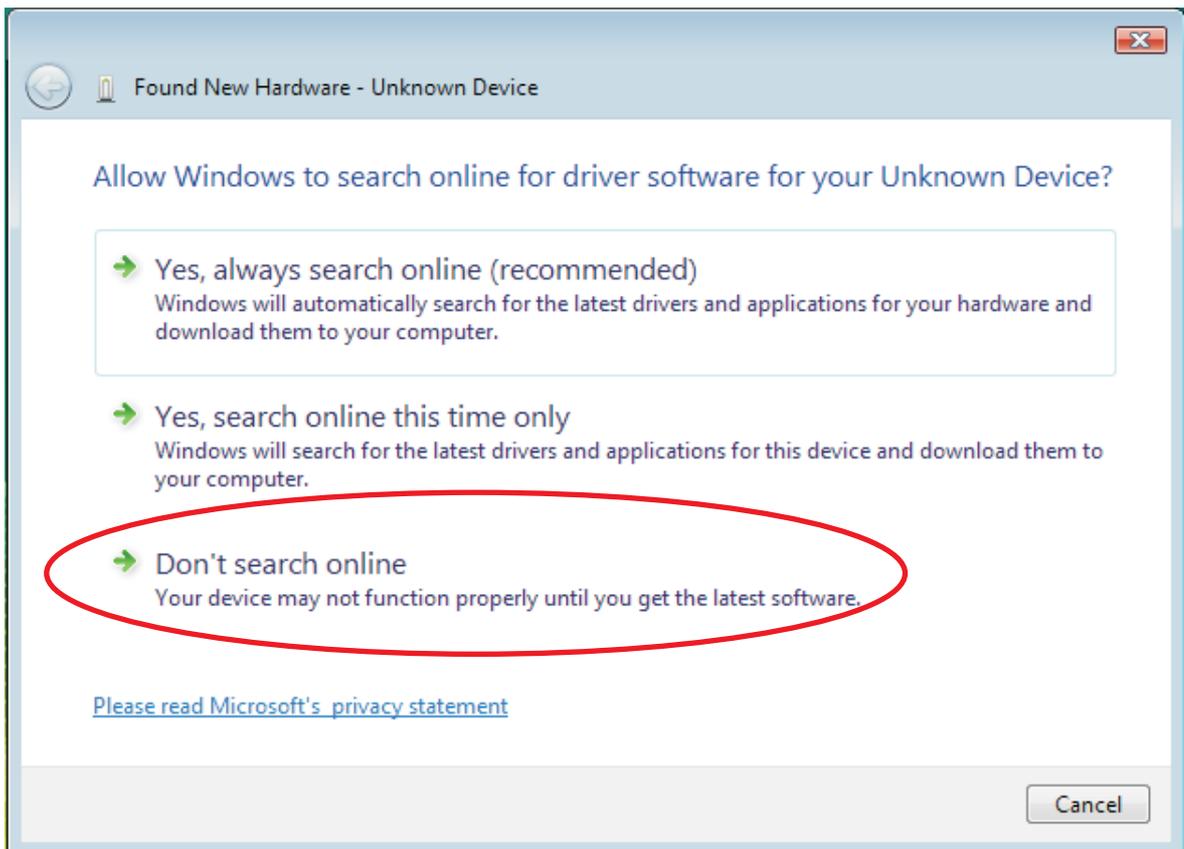
Step1 Choose the first choice.



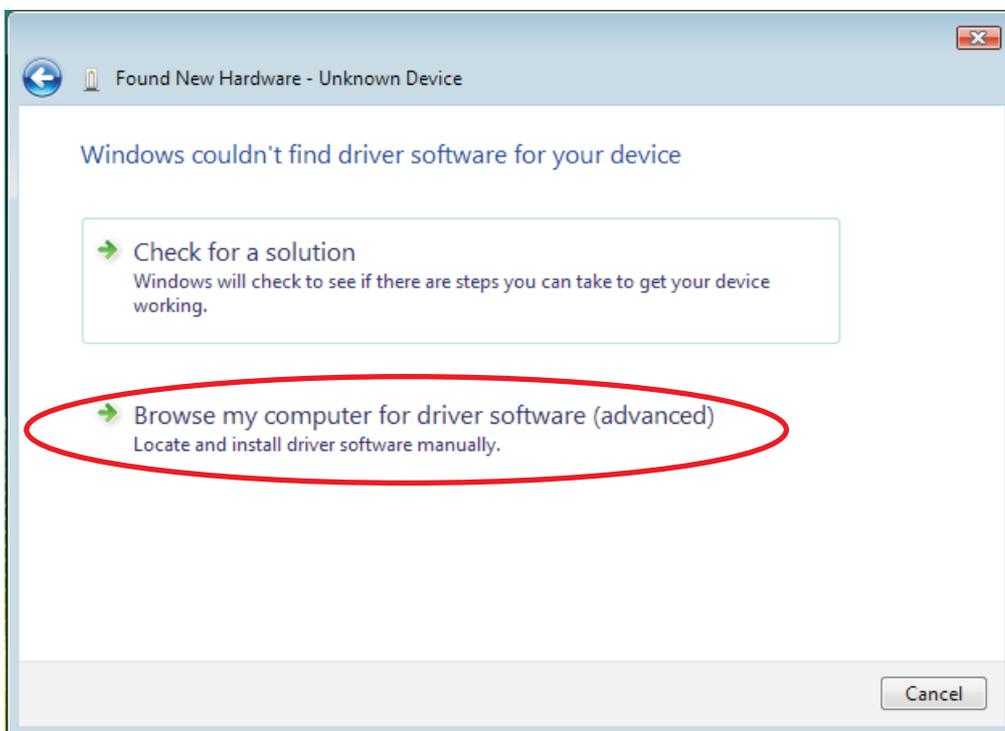
Step2 Click "Continue" to go next.



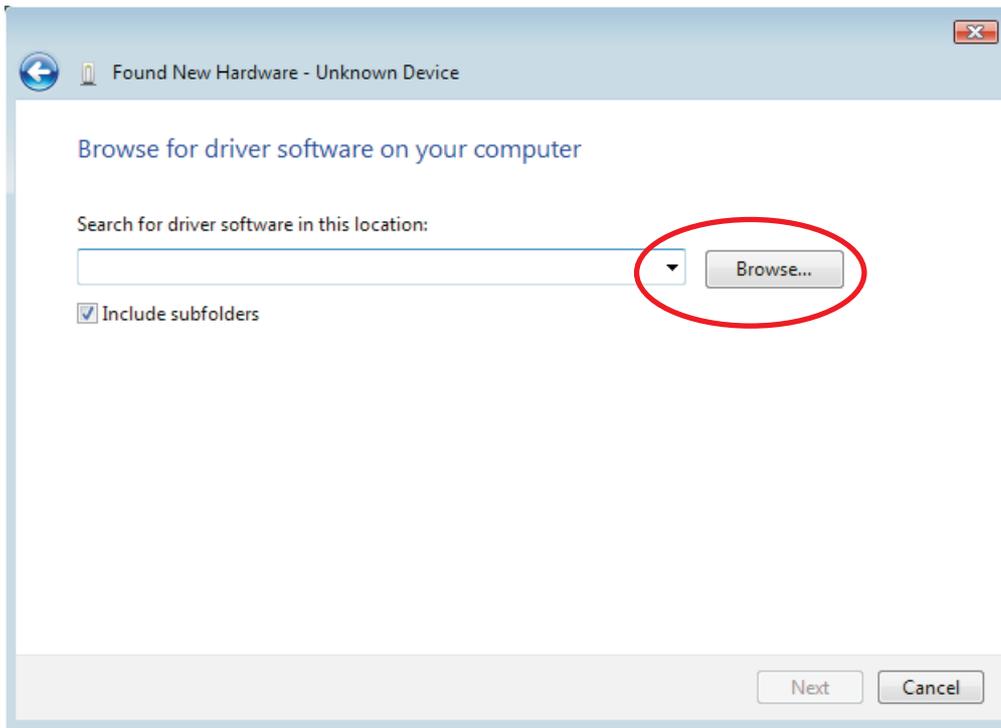
Step3 Choose the third choice.



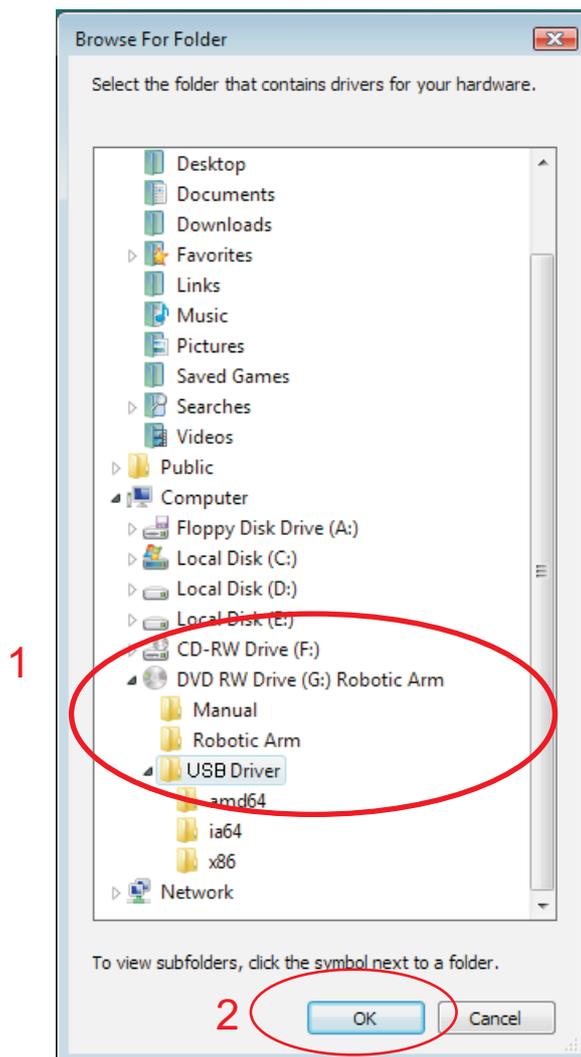
Step4 Choose the second choice.



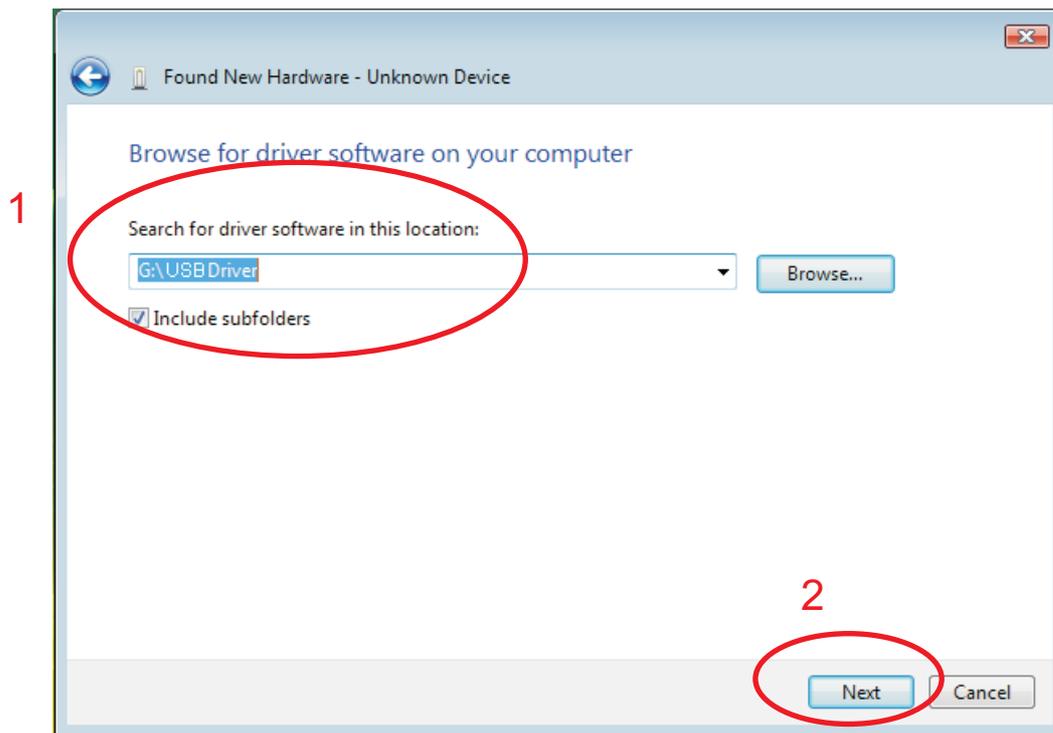
Step5 Click "Browse"



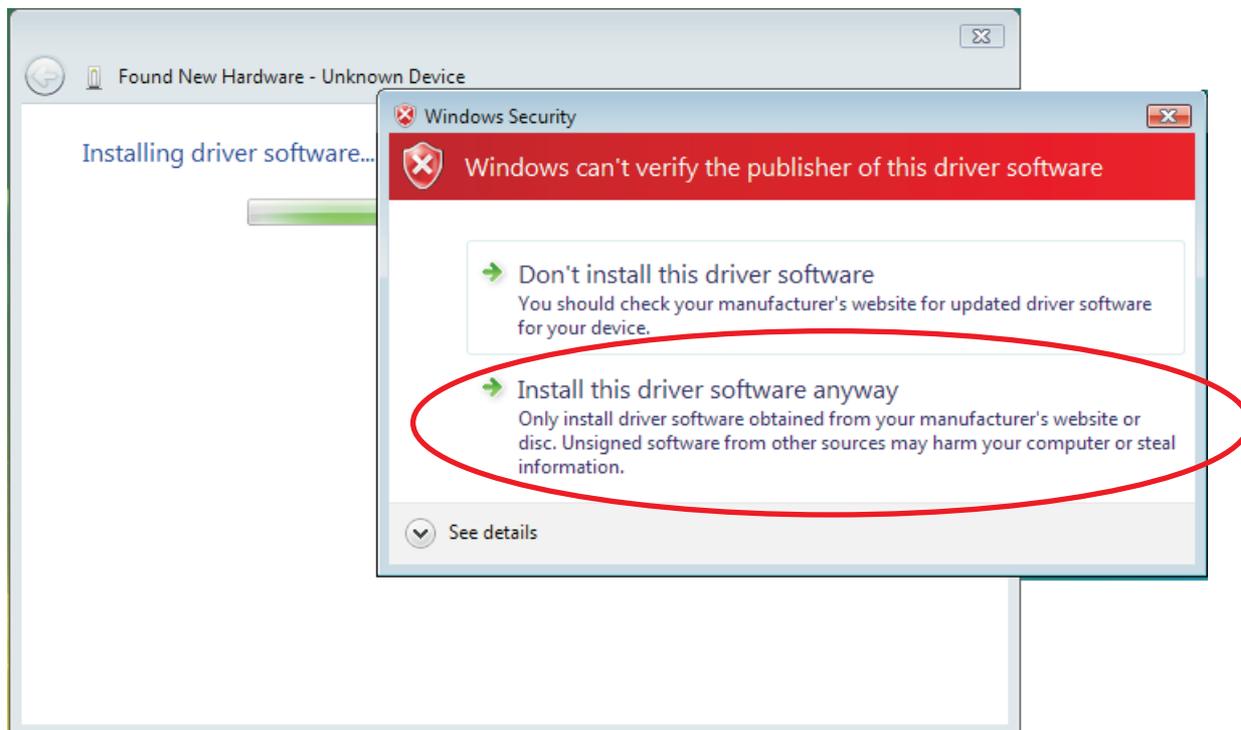
Step6 Click your CD-ROM and choose USB Driver folder. Click "OK" to continue.



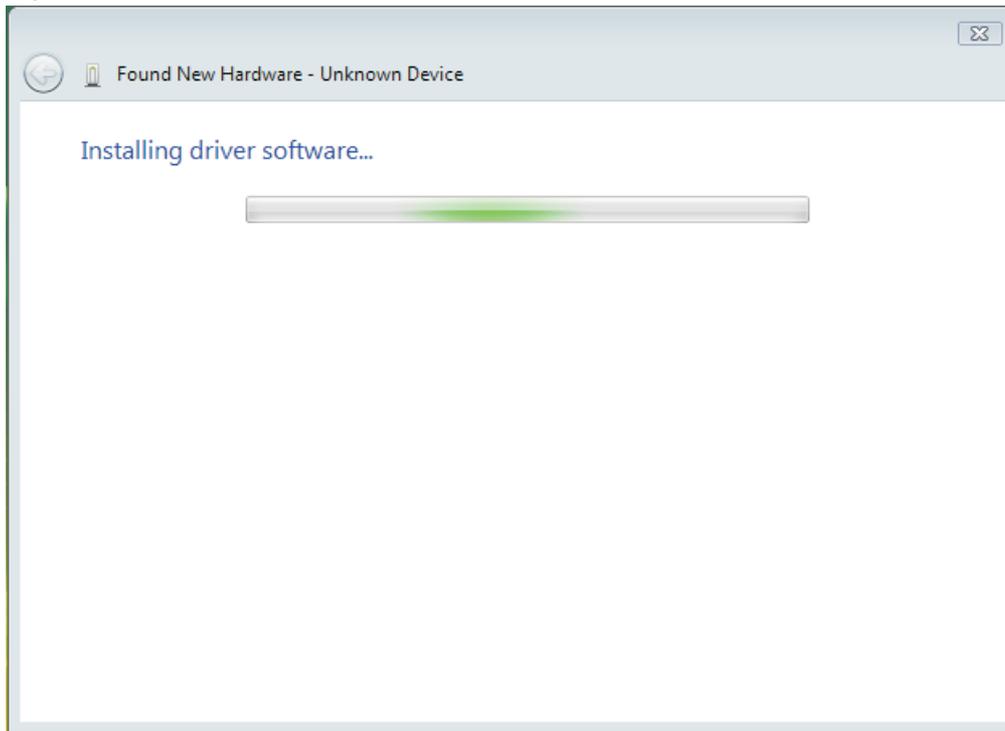
Step7 Check the path and go Next.



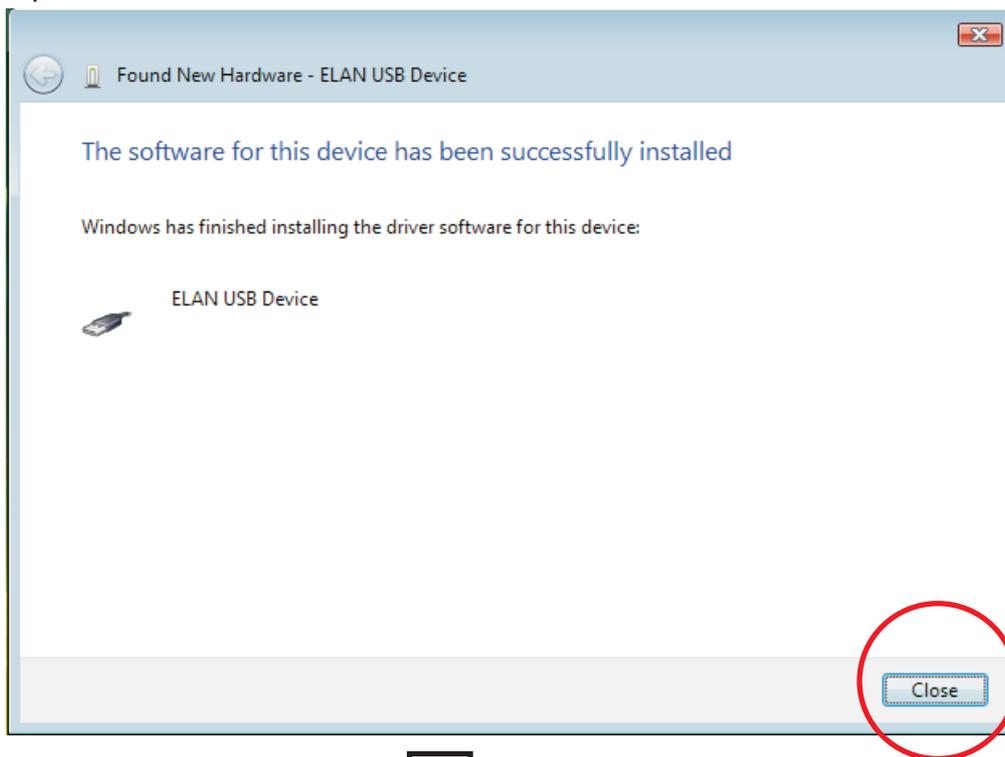
Step8 Choose the second choice.



Step9 Wait...



Step10 Close

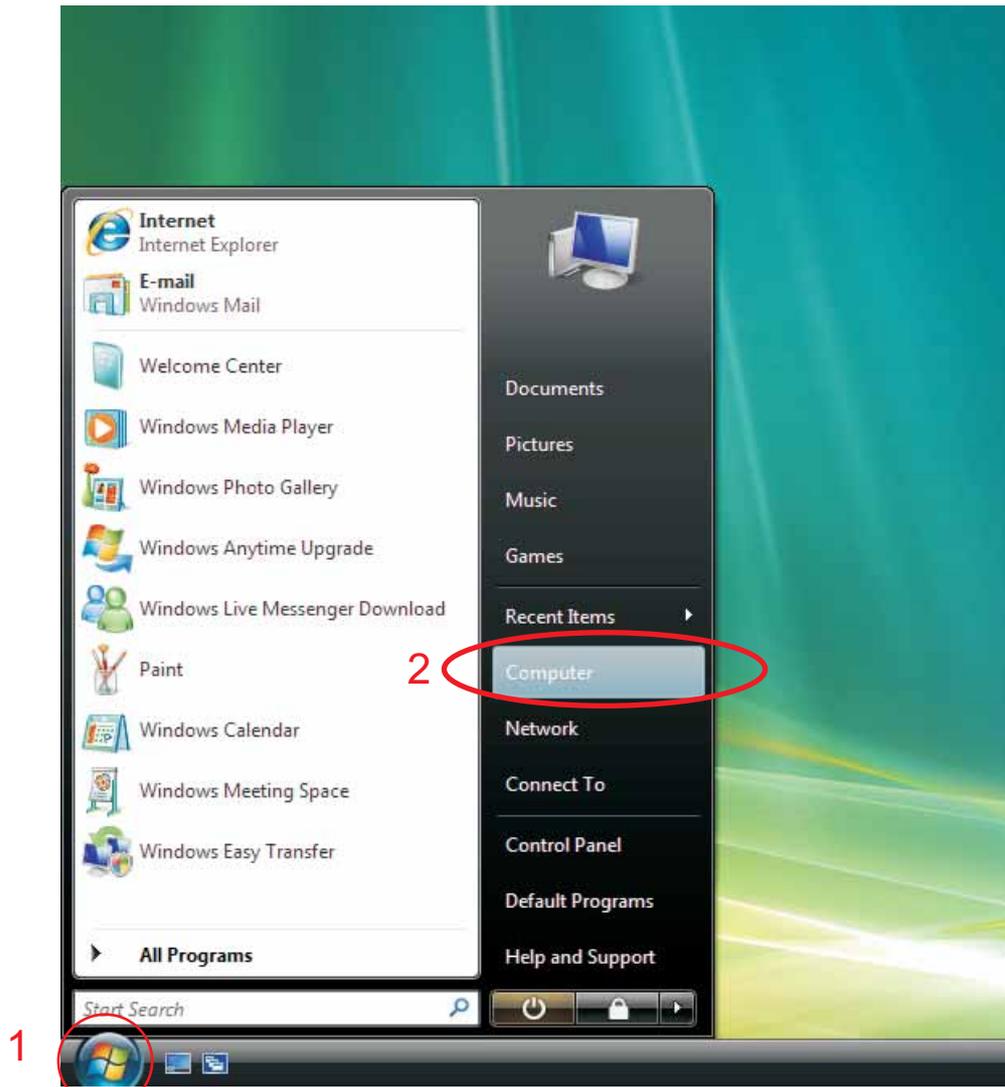


Step11 Showing Below of the screen.

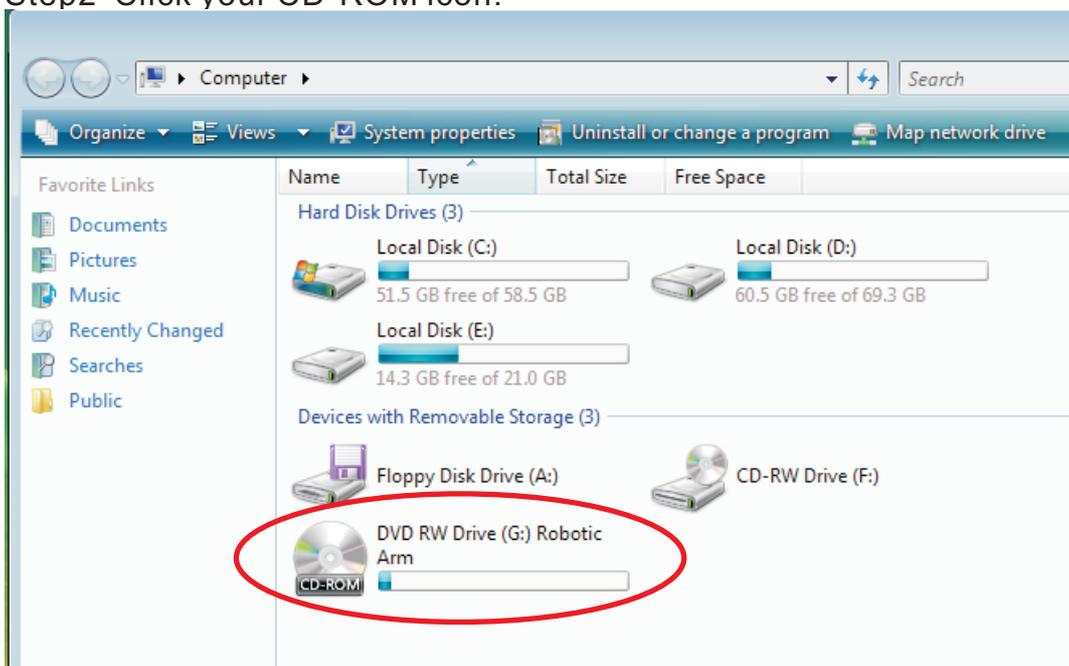


2-3.Install MAIN PROGRAM

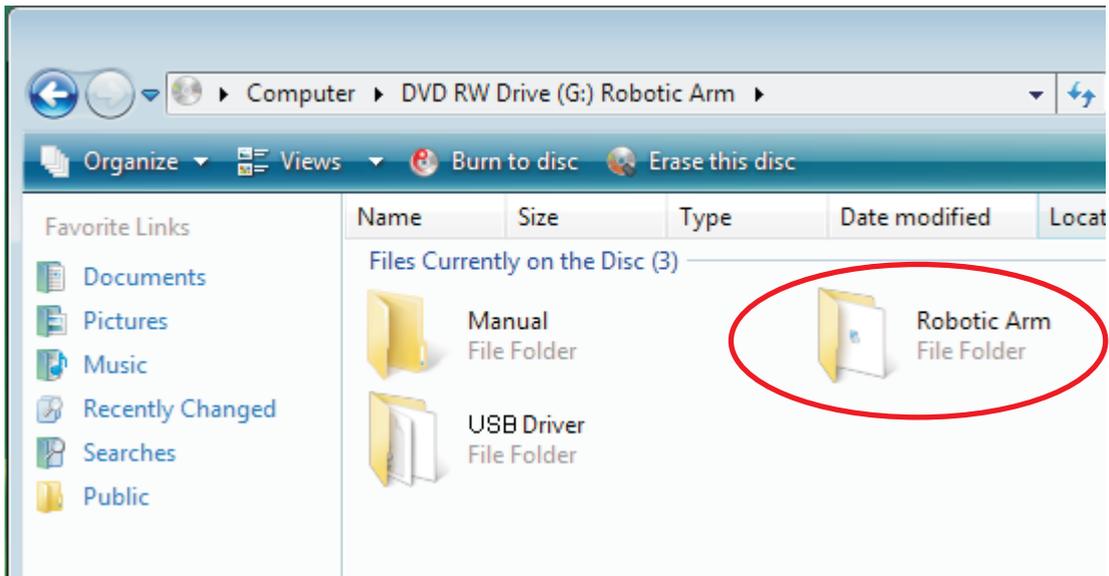
Step1 Go to computer choice.



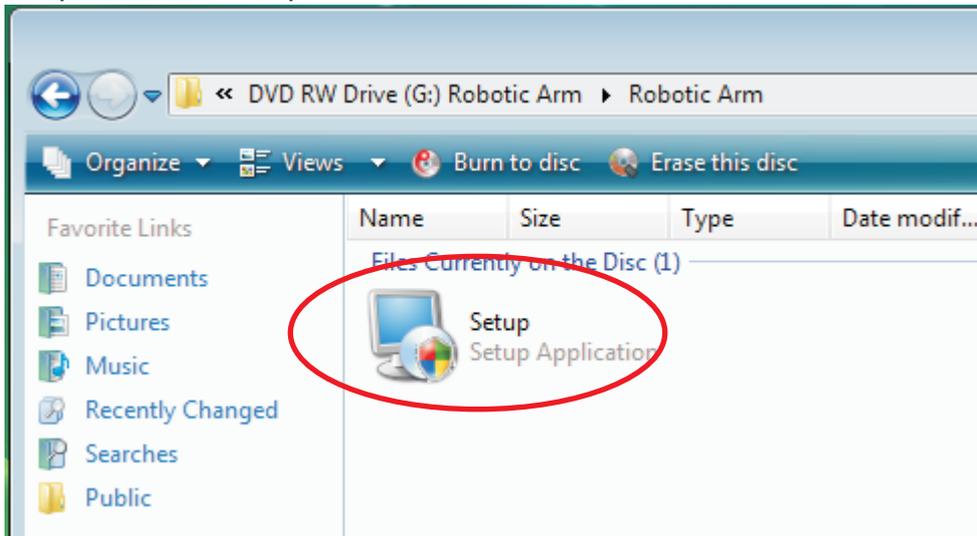
Step2 Click your CD-ROM icon.



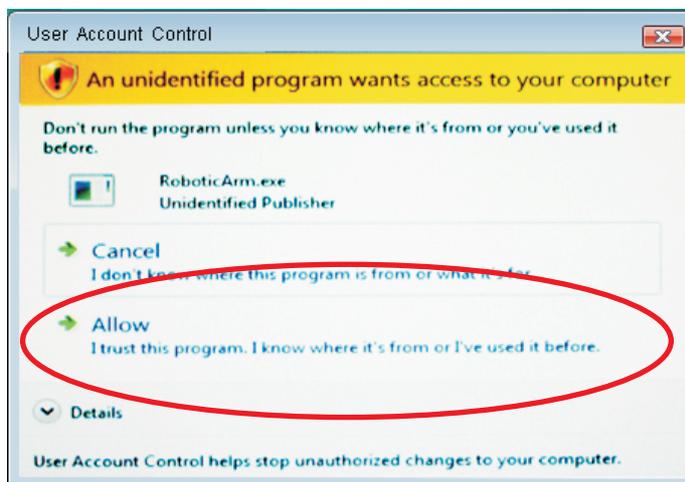
Step3 Choose Robotic Arm folder.



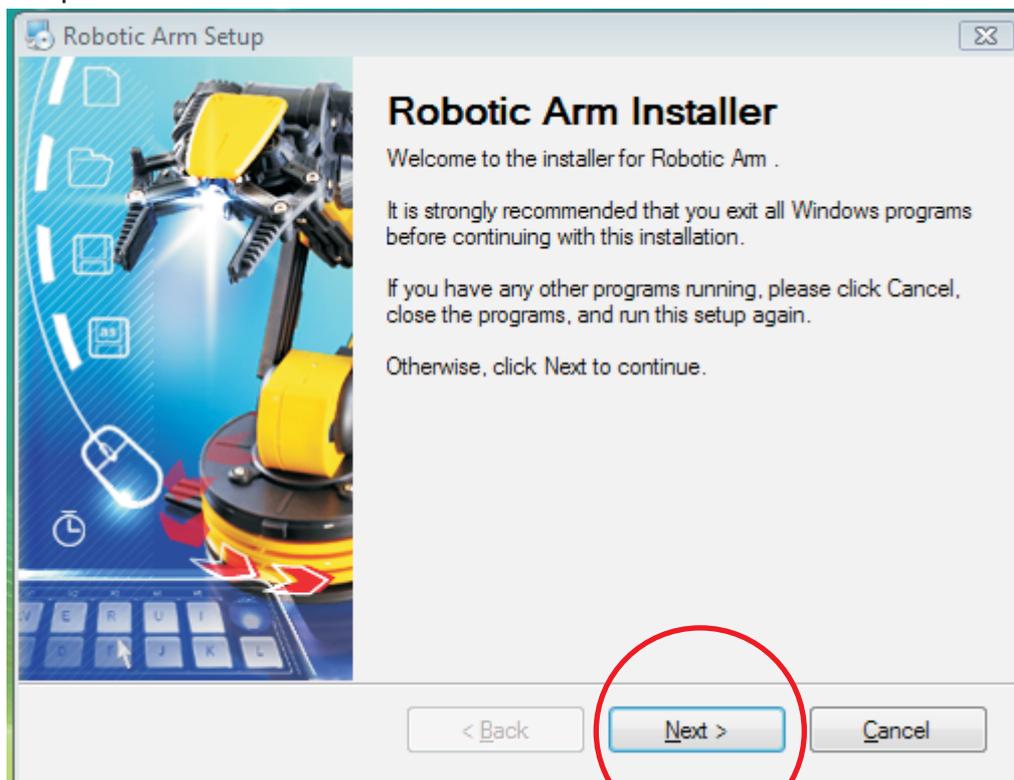
Step4 Click "setup" icon.



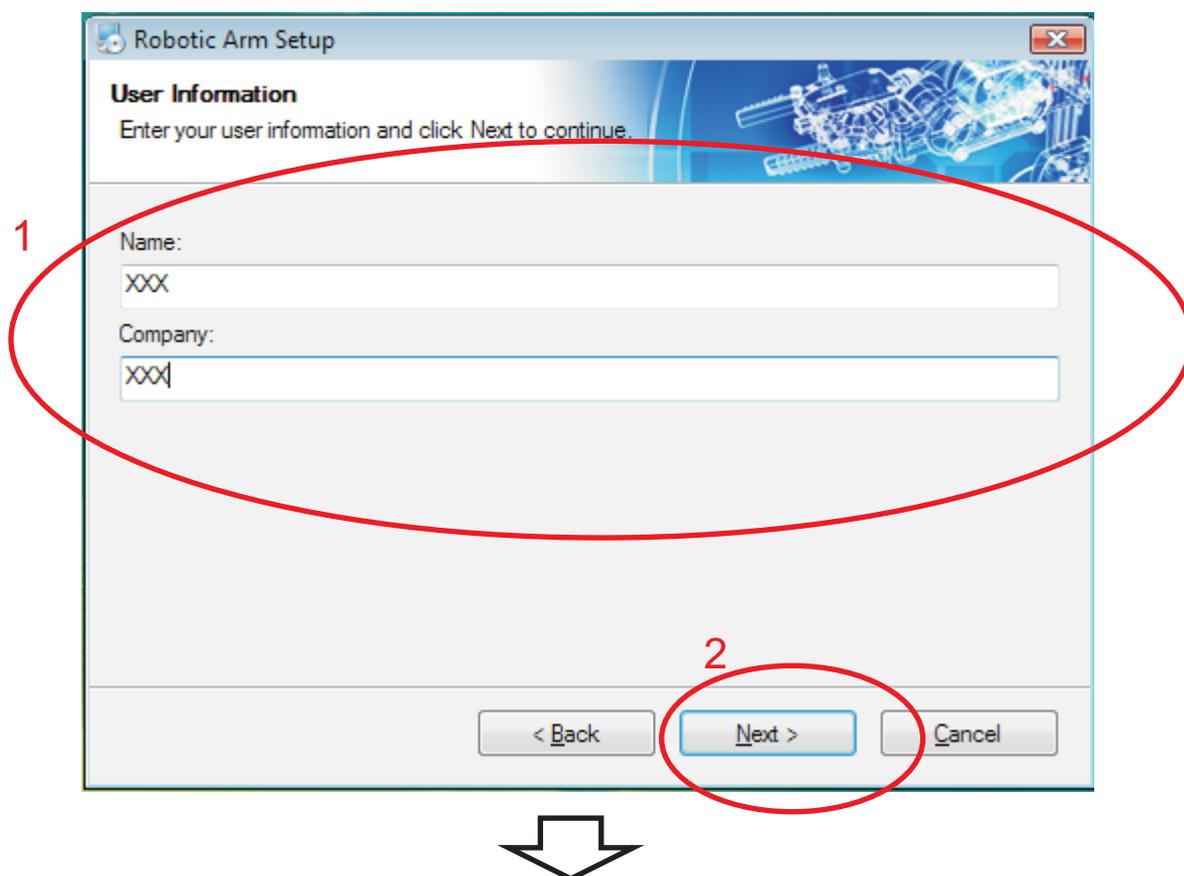
Step5 Choose the second choice.



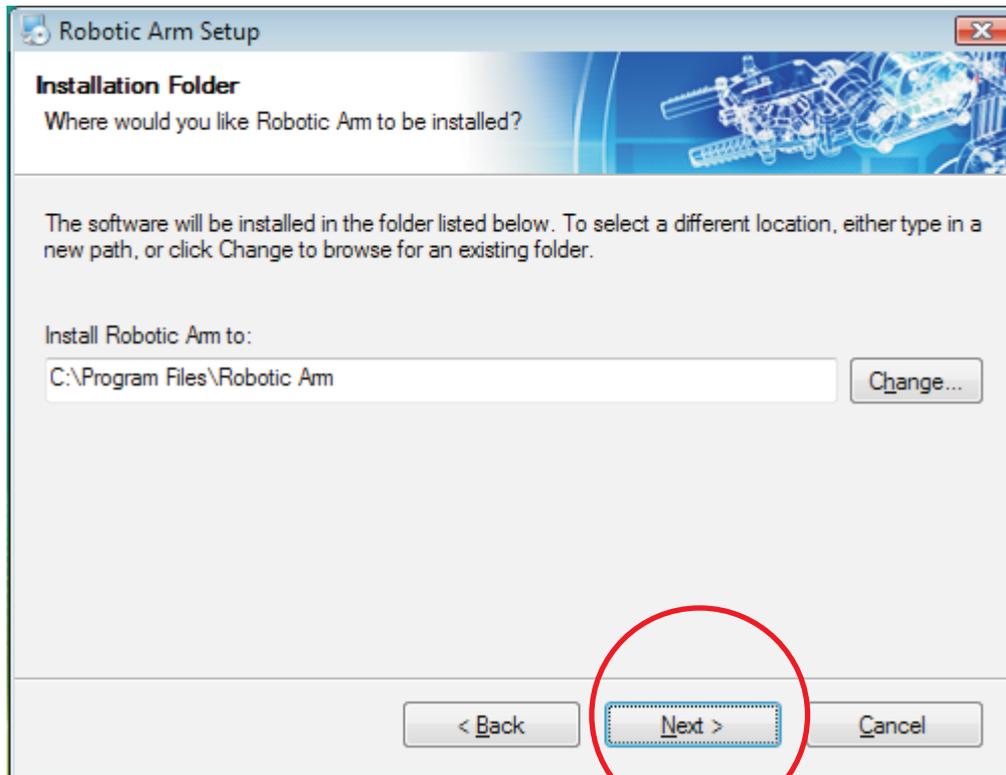
Step6 Click "Next" to continue.



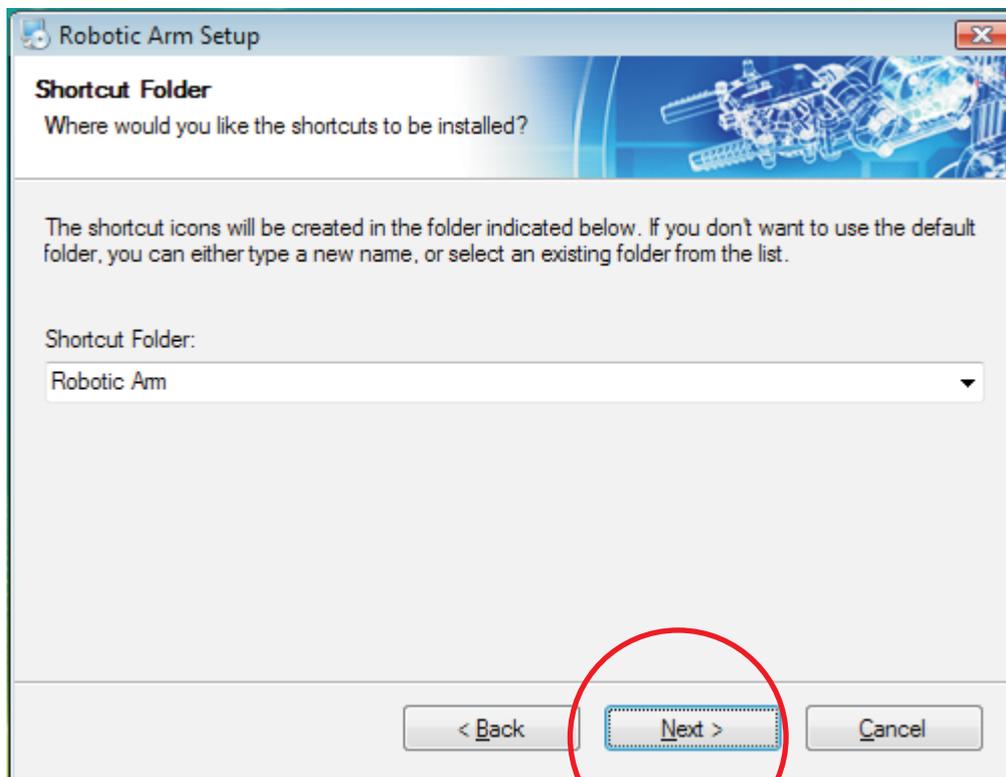
Step7 Fill in your name or company and go next.



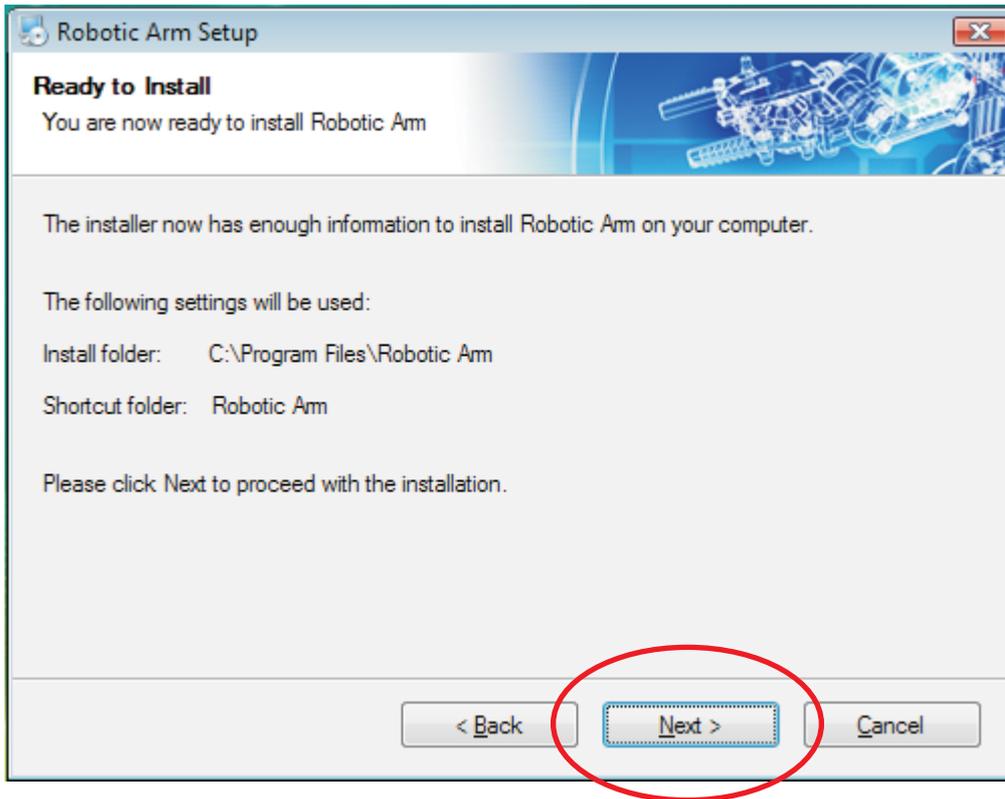
Step8 Click “Next” to continue.



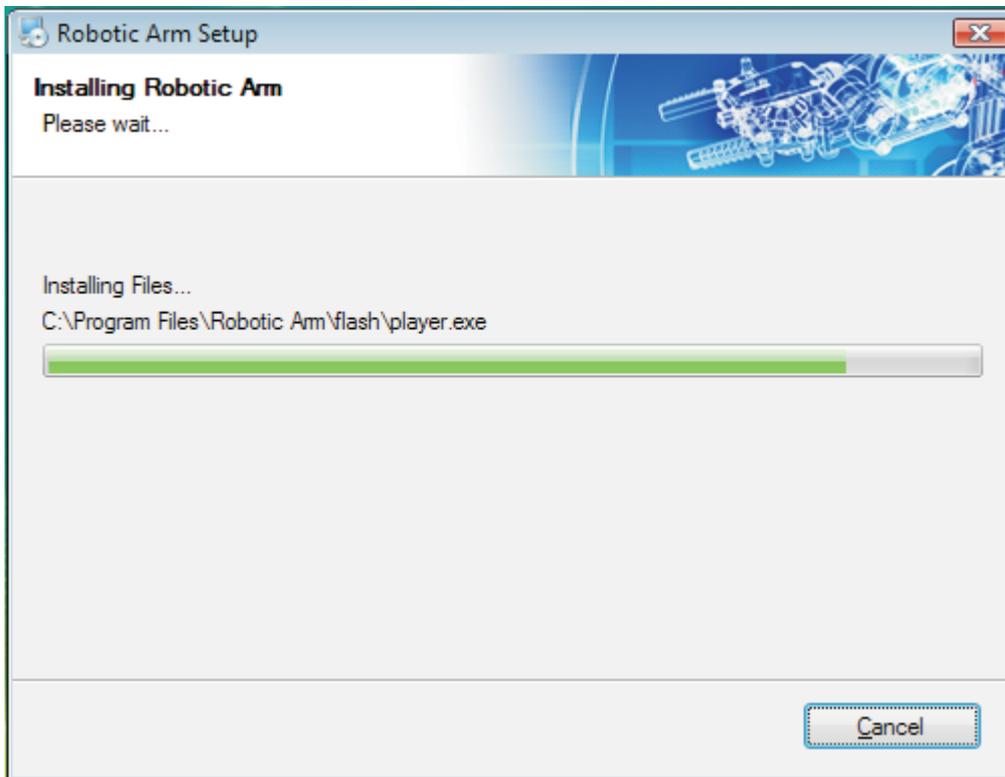
Step9 Click “Next” to continue.



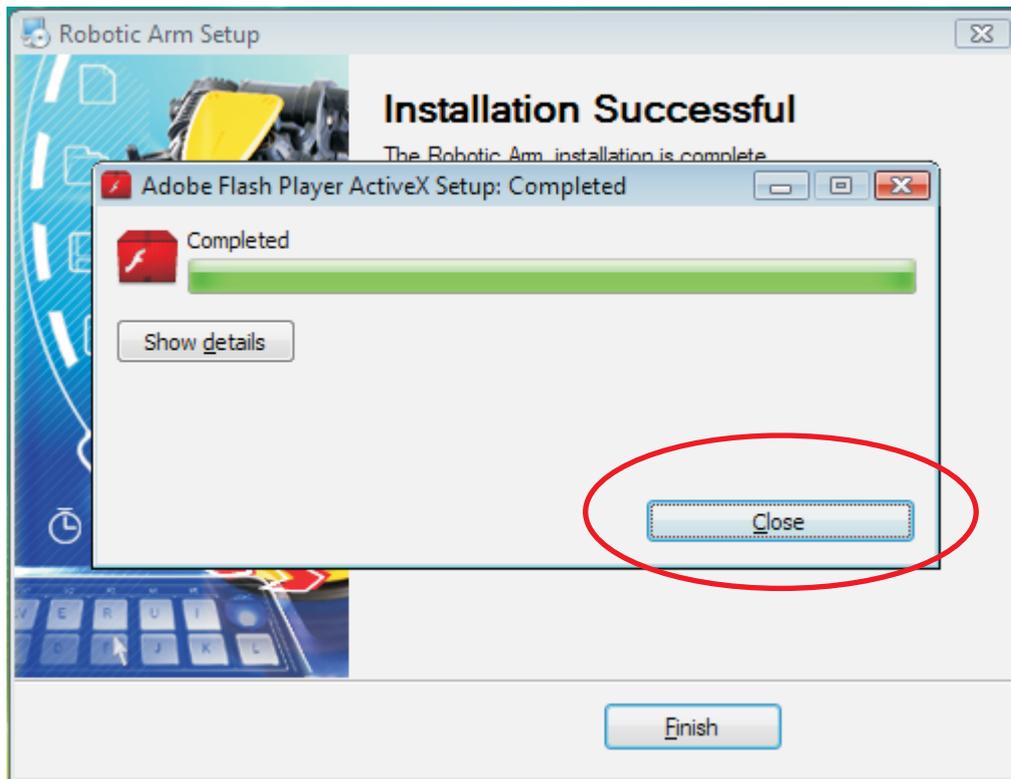
Step10 Click "Next" to continue.



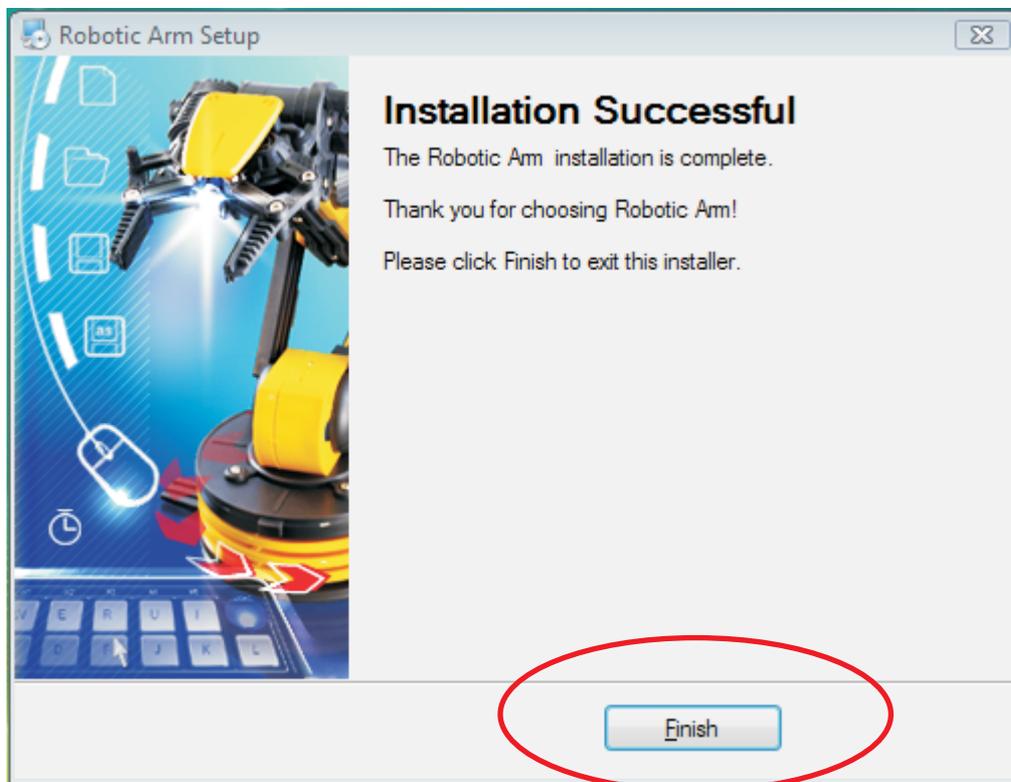
Step11 Wait...



Step14 Close



Step15 Finish setup



3.HOW TO PLAY

3-1.Start the program

Click “Robotic Arm” icon on your desktop to start the program.



Robotic Arm

3-2.Opening animation

Click “PLAY” to get into the program.



3-3.MENU

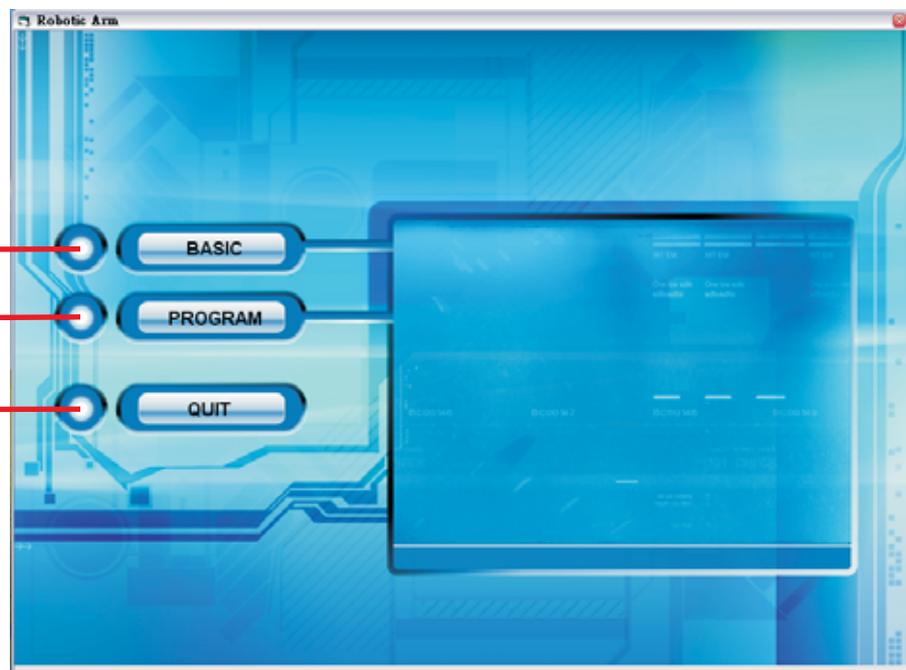
Choose a mode to play.

【MENU】

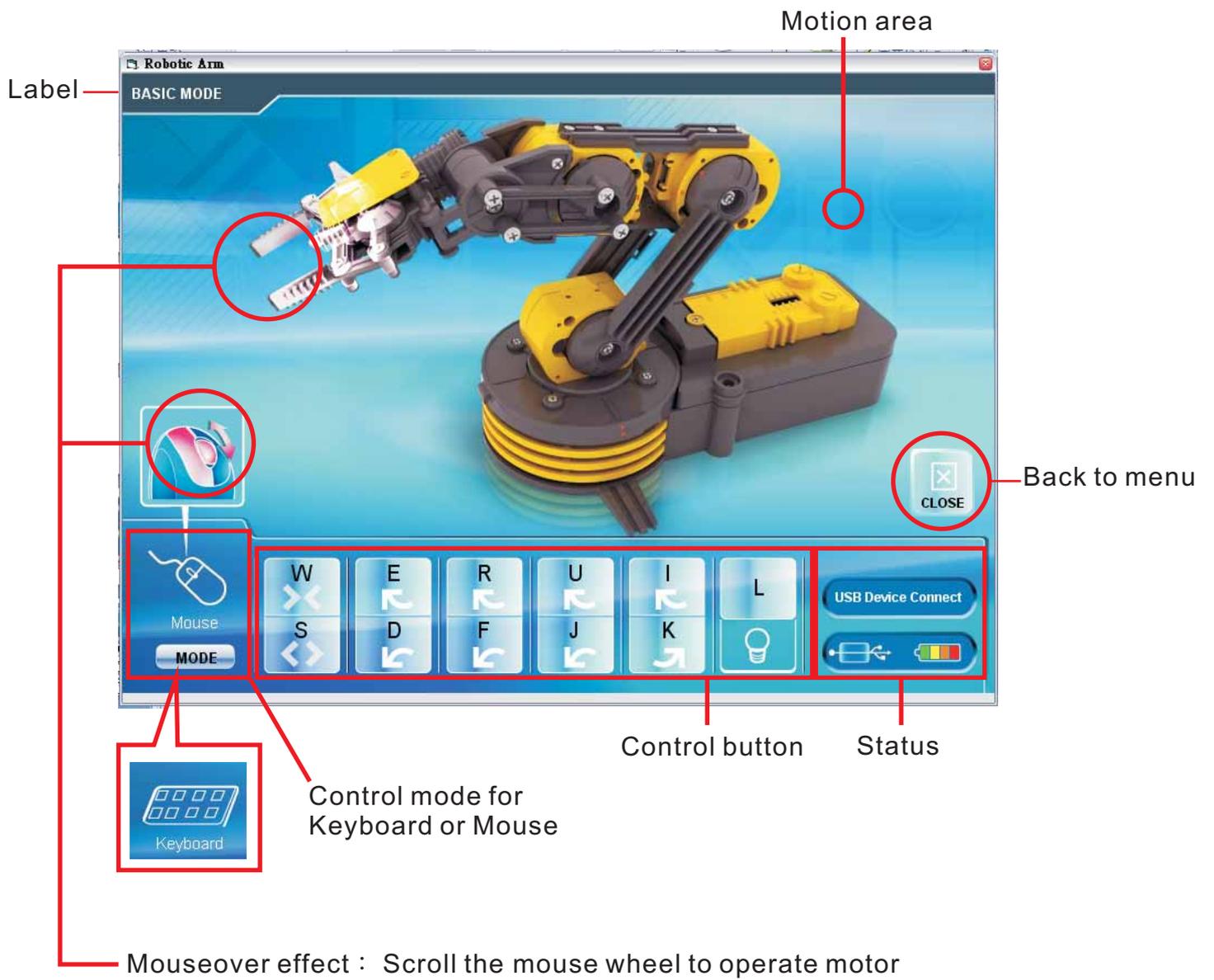
BASIC mode

PROGRAM mode

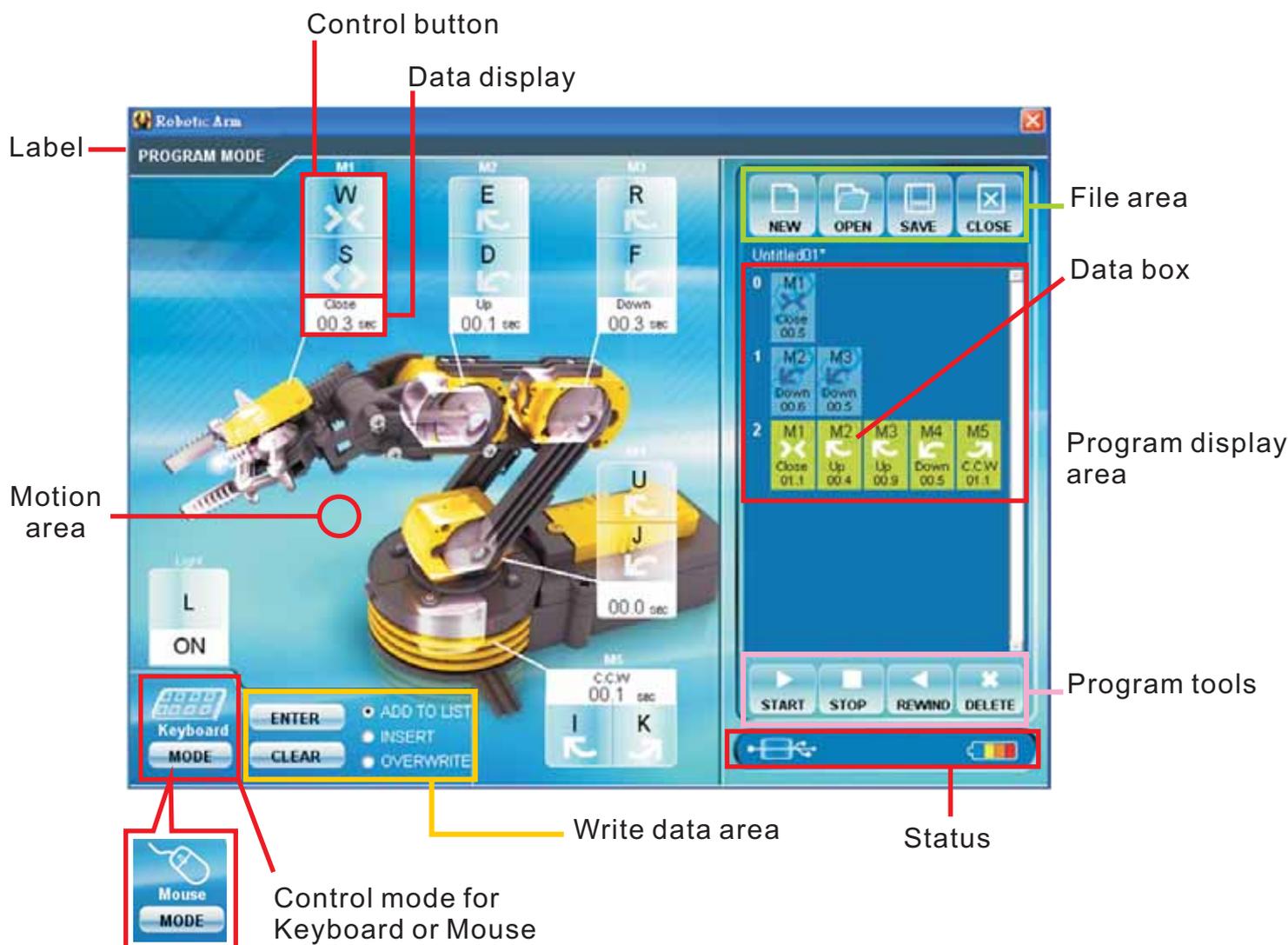
Quit



3-4.BASIC MODE



3-5.PROGRAM MODE



Write data area

- ENTER** : Fix the total operation time in the program display area.
- CLEAR** : The timer is reset to "0".

File area

- NEW** : Create a new file.
- OPEN** : Open a saved file.
- SAVE** : Save a created program.
- CLOSE** : The display goes back to Menu

Program tools

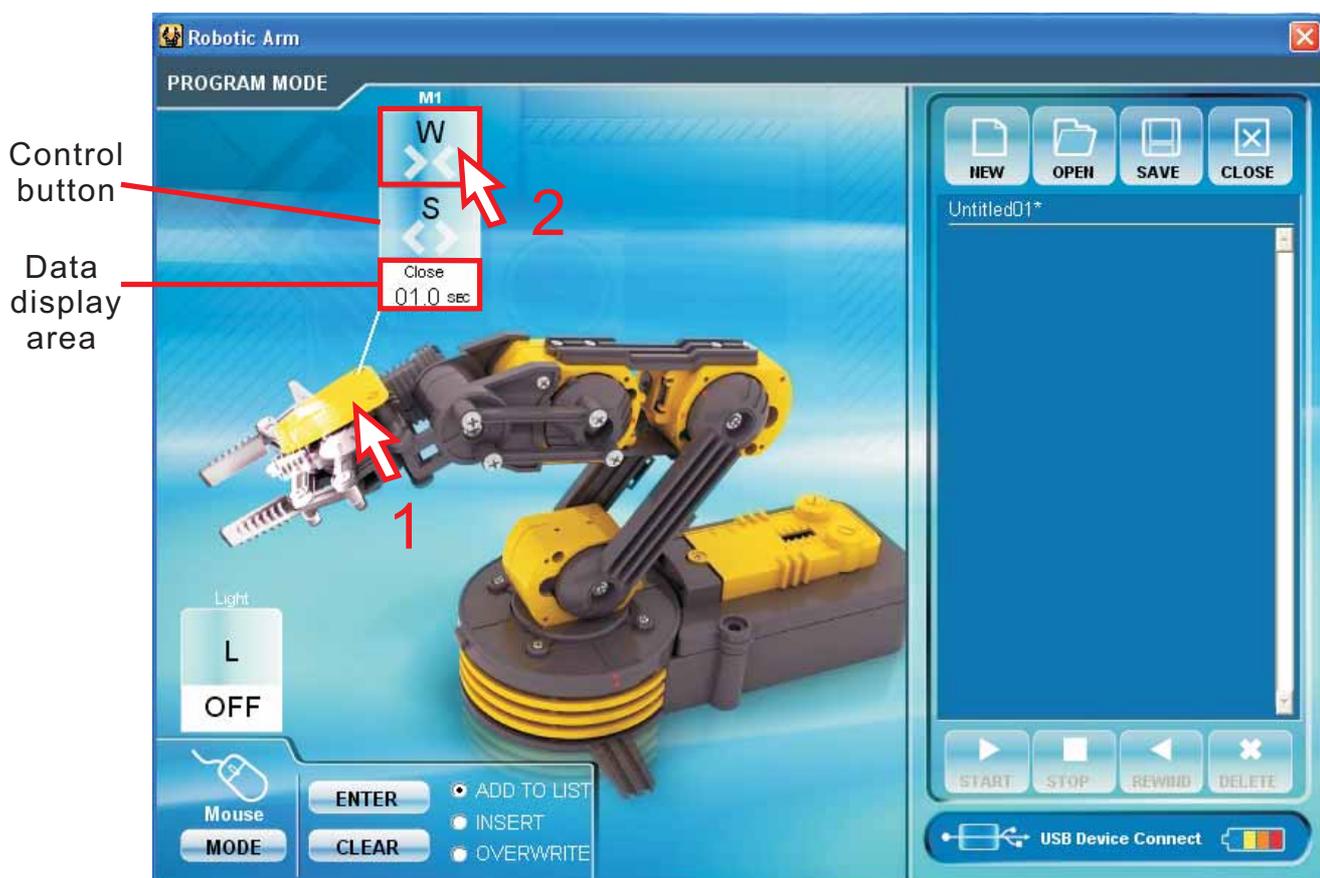
- START** : The program in the program display area is executed.
- STOP** : The program under execution is stopped.
- REWIND** : Reversed for the time specified in the program display area and Robotic Arm goes back to the original position.
- DELETE** : Selected command in the program display area is deleted.

3-6.PROGRAM MODE OPERATION GUIDE

Step1 Choose "PROGRAM".



Step2 Begin to program your Robotic Arm. Choose any of the motor gear in Motion area. For example, choose "M1" gear and use "Control button" to change the time you want the Robotic Arm to be moved. The time is shown at the "Data display" area.



Step3 Press "ENTER" to write the data in "Data box".

Data box

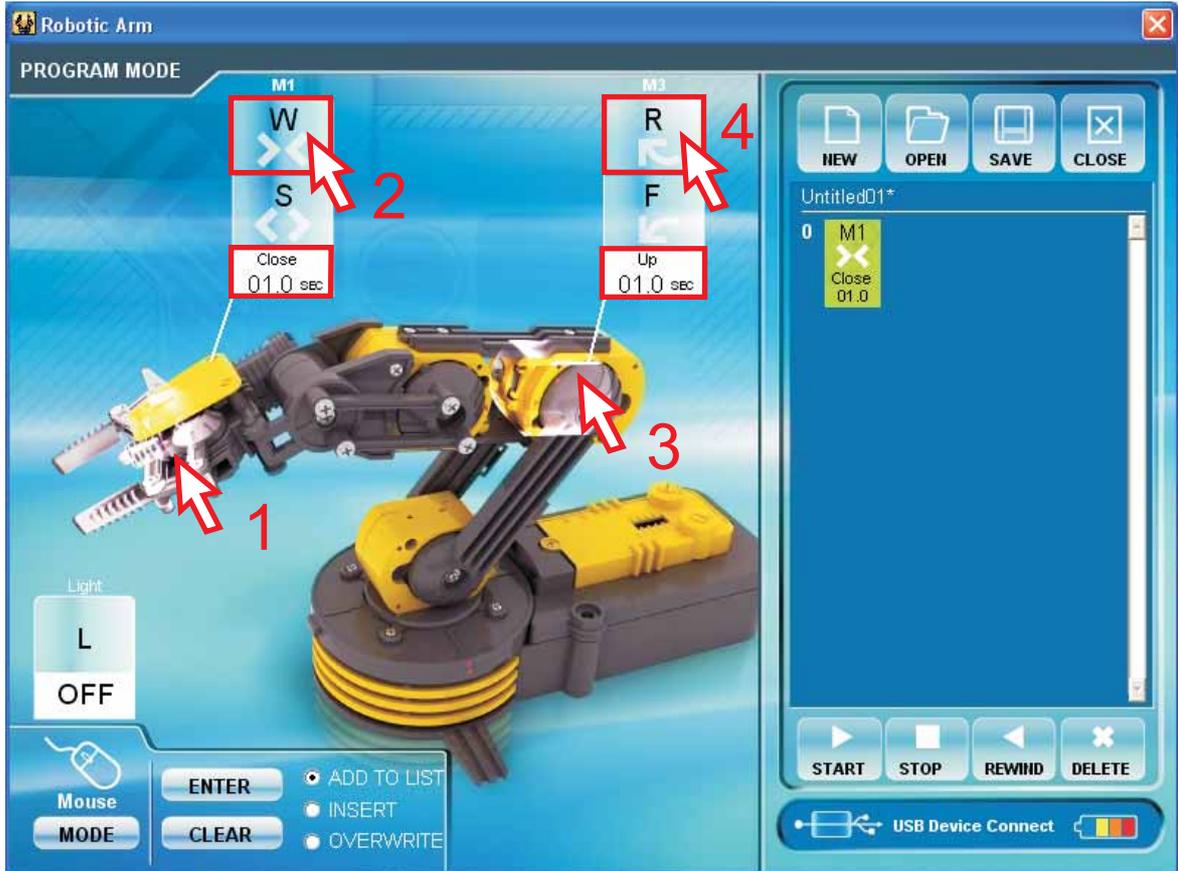


Step4 The data in "Data box".

Data box



Step5 Keep to choose another motor gear. Choose “M1” and “M3” gear and change the data.



Step6 Press “ENTER” . The data is written into the “Data box” at the same time.

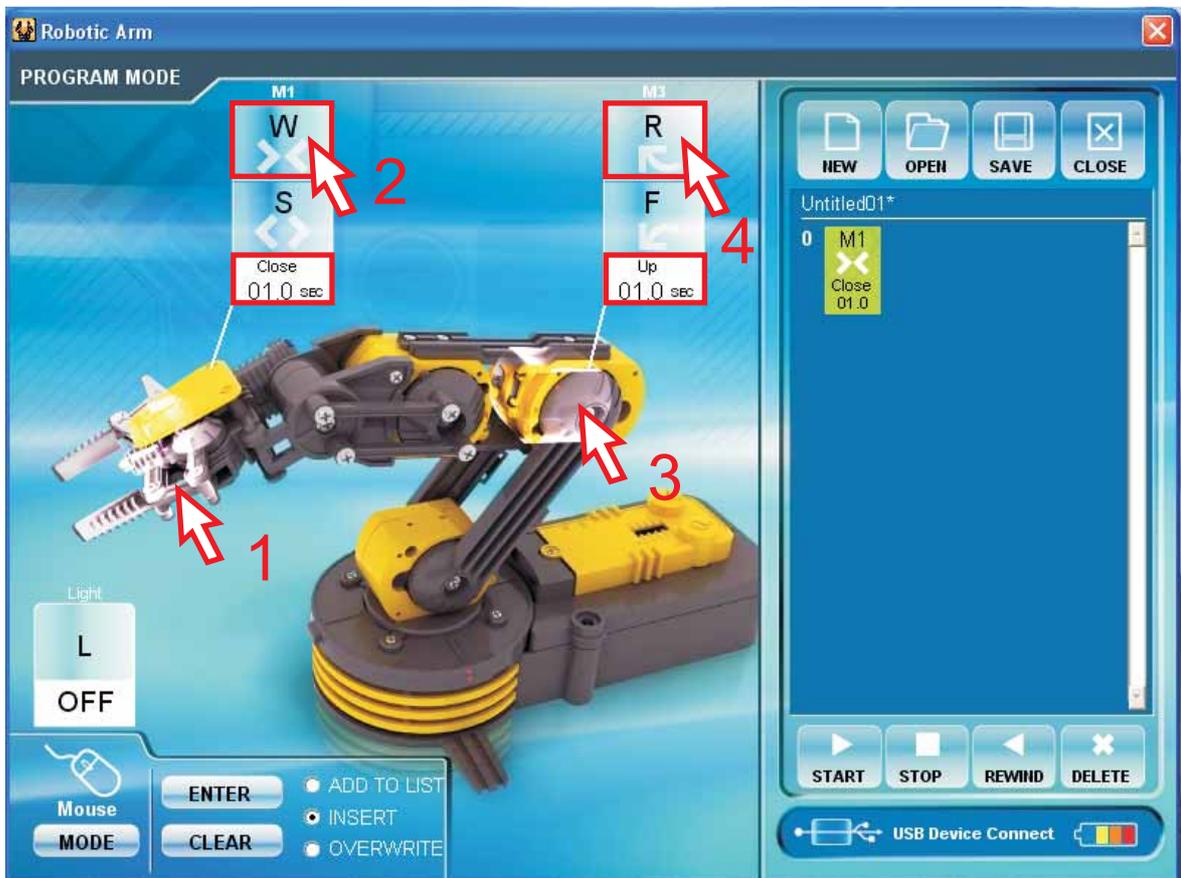


Step7 IF you want to insert a movement before the data in the Data Box.
Click "INSERT" at "Write data area".



Write data area

Step8 Change the time with the motors you want to change.



Step9 Press "ENTER" . The data is inserted into the "Data box" at the same time.

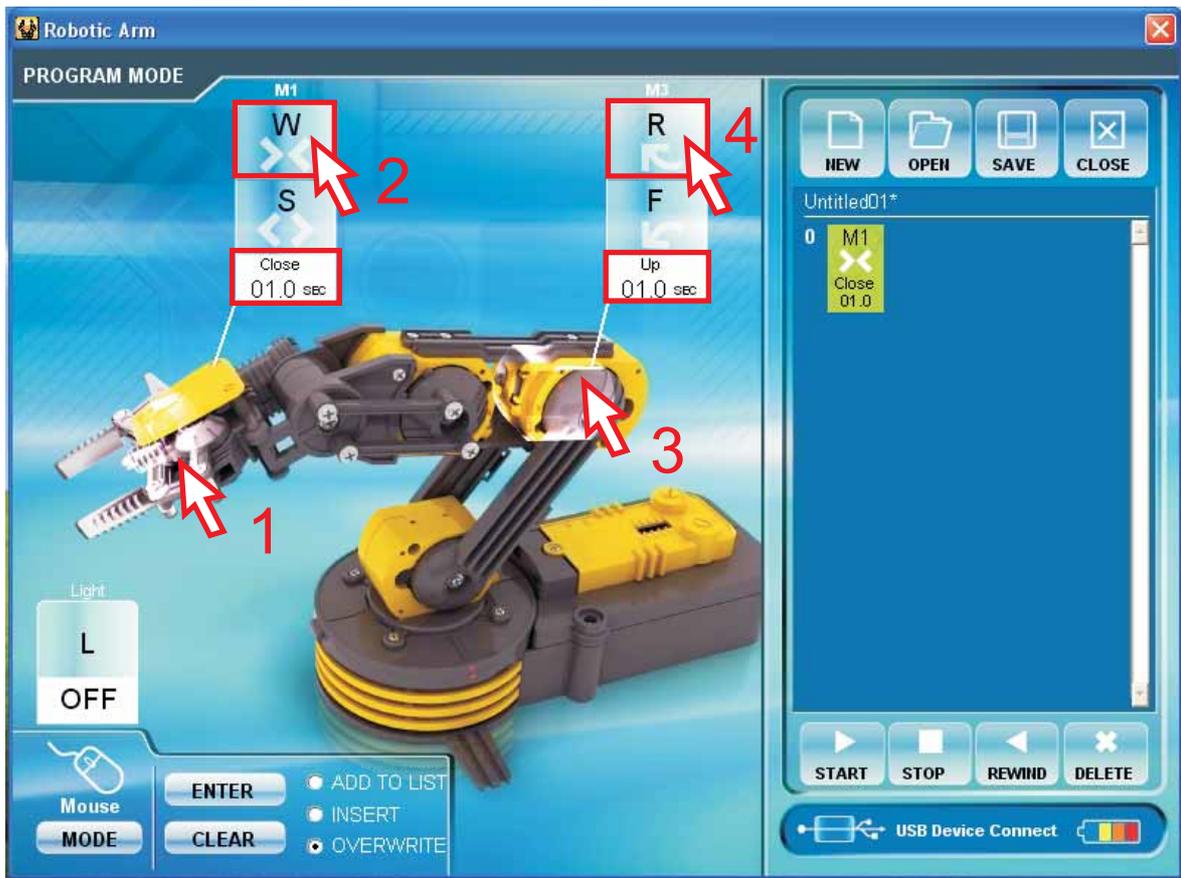


Step10 To overwrite the data. Click "OVERWRITE" at "Write data area".



Write data area

Step11 Change the time with the motors you want to change.



Step12 Press "ENTER". The data is changed at the same time. And the choice of "OVERWRITE" in "Write data area" is changed back to "ADD TO LIST" automatically.



Step13 To see the movement you have been set . Press “START” in “Program tools” area.



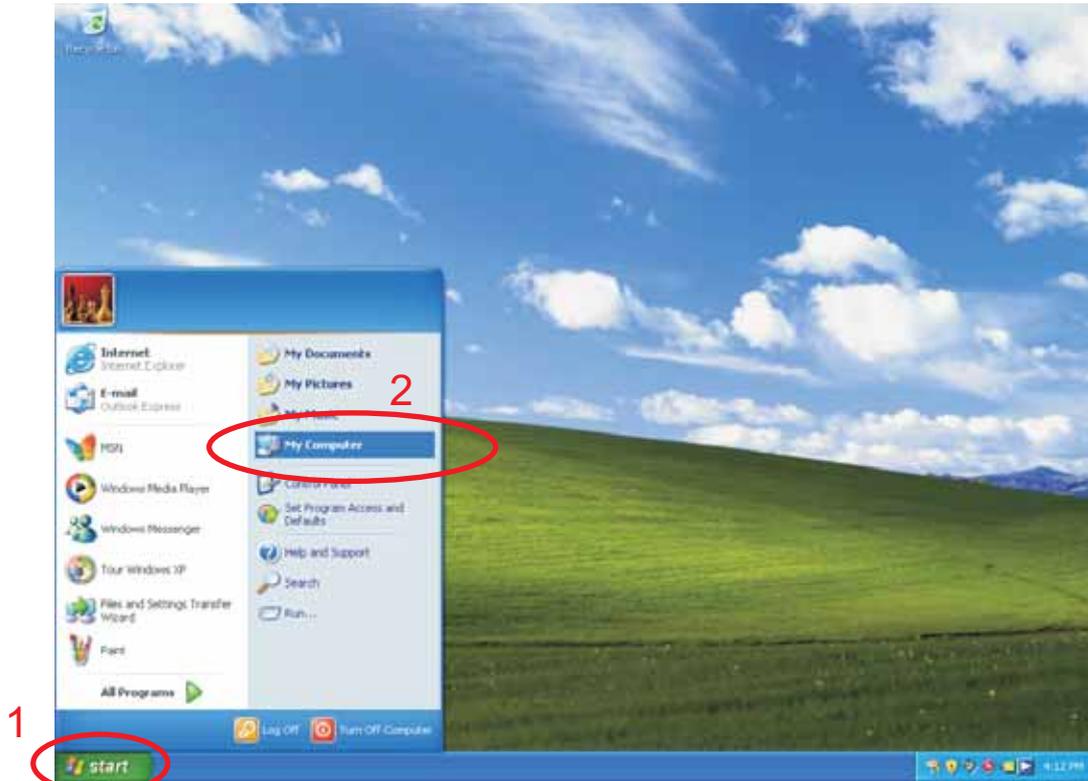
Step13 The movement data will show on screen at the same time while the Robotic Arm is moving.



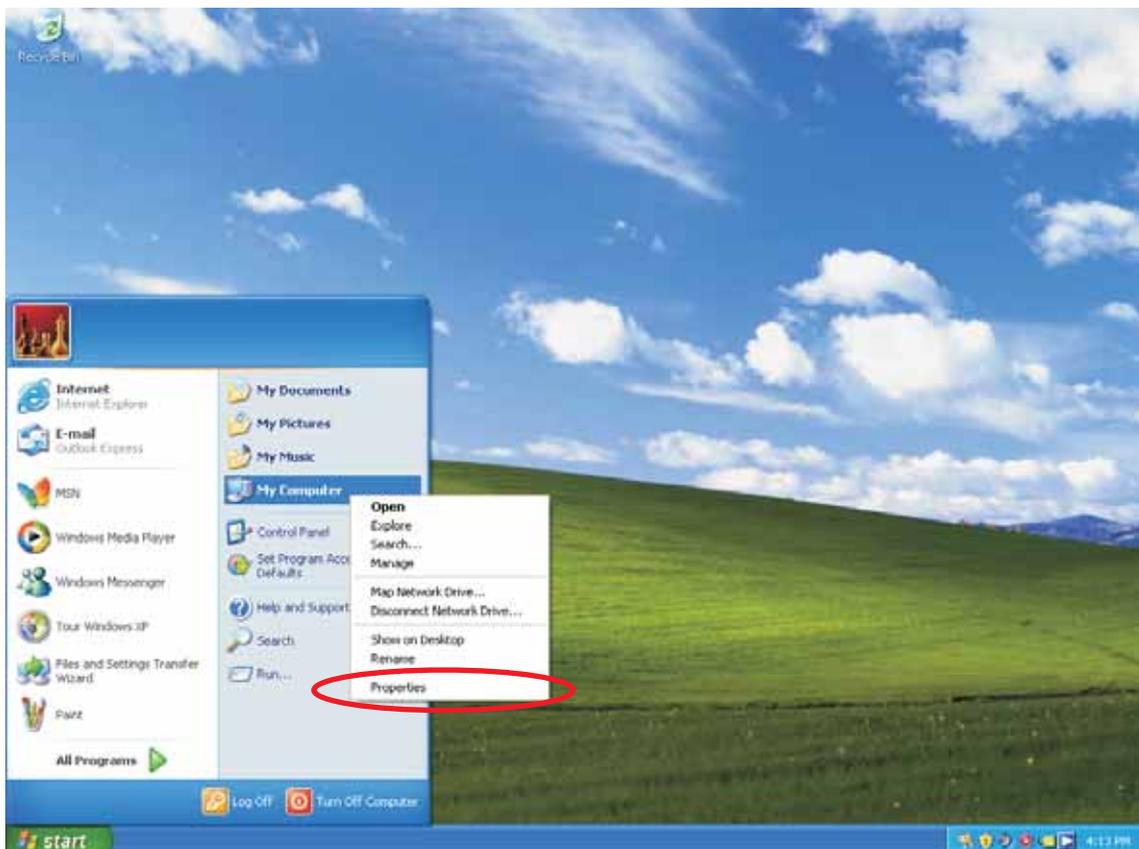
4.TROUBLESHOOTING

4-1 (For Windows XP) Begin to play or during playing,if you connect the PC with USB is no response. Please try following steps.

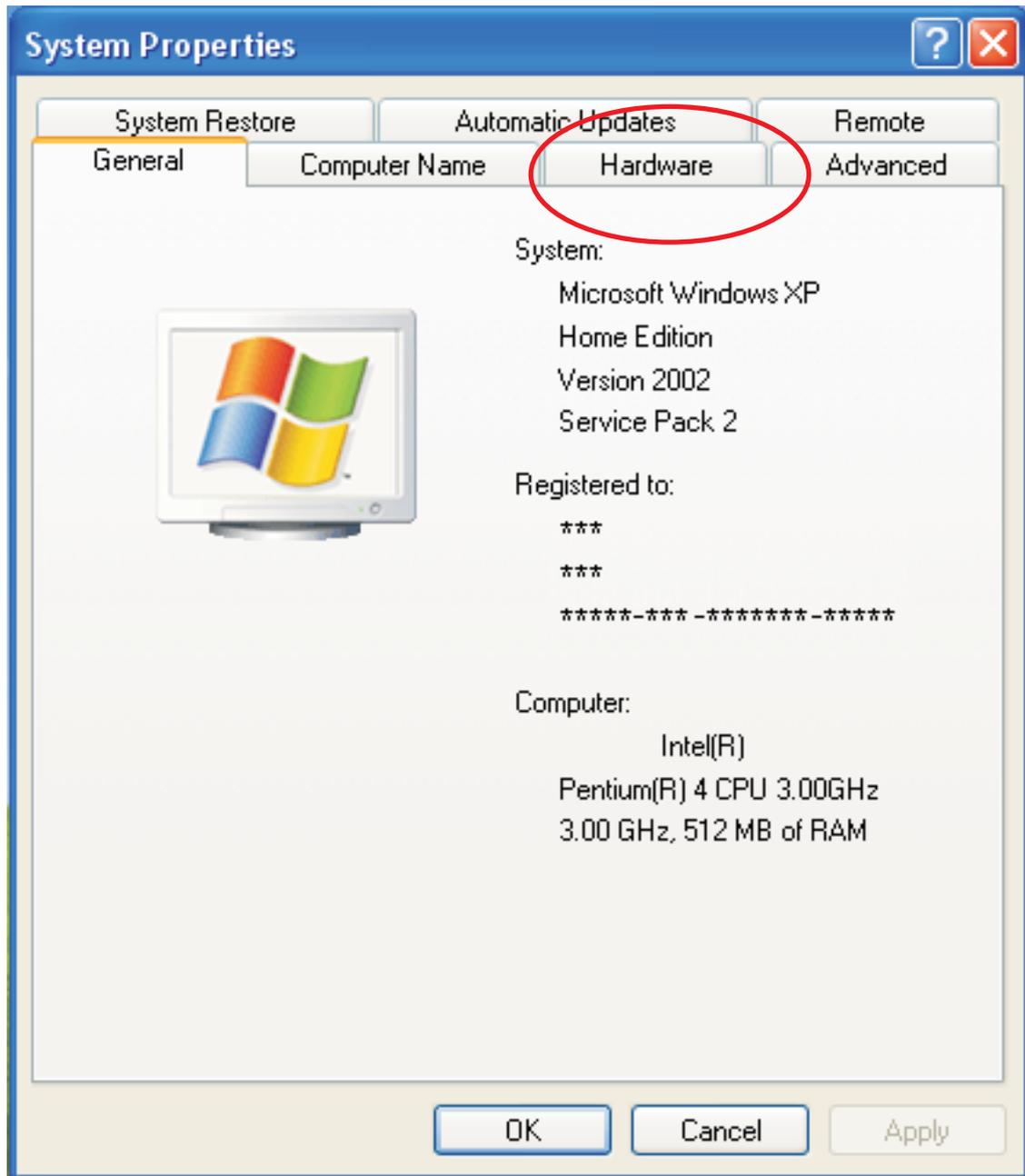
Step1 Move your mouse to “My Computer”.



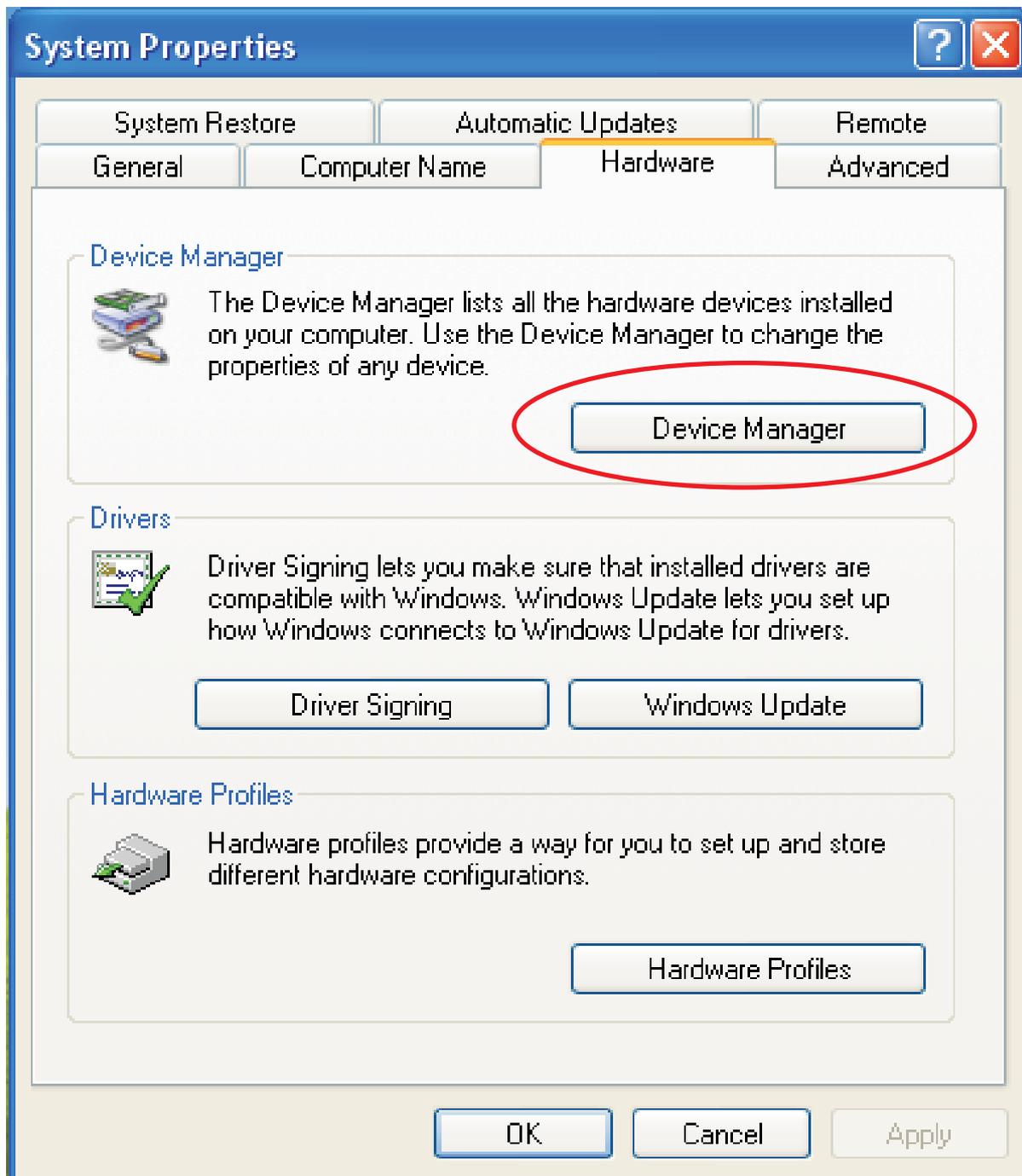
Step2 Click right button of your mouse and choose”Properties”.



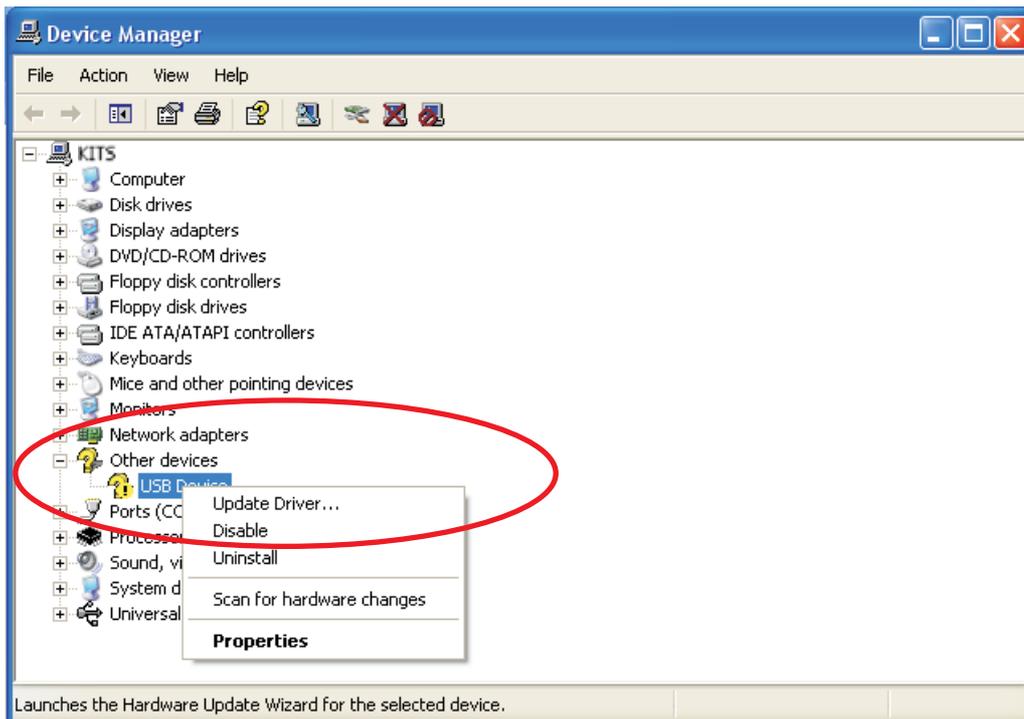
Step3 Click "Hardware".



Step4 Click "Device Manager"



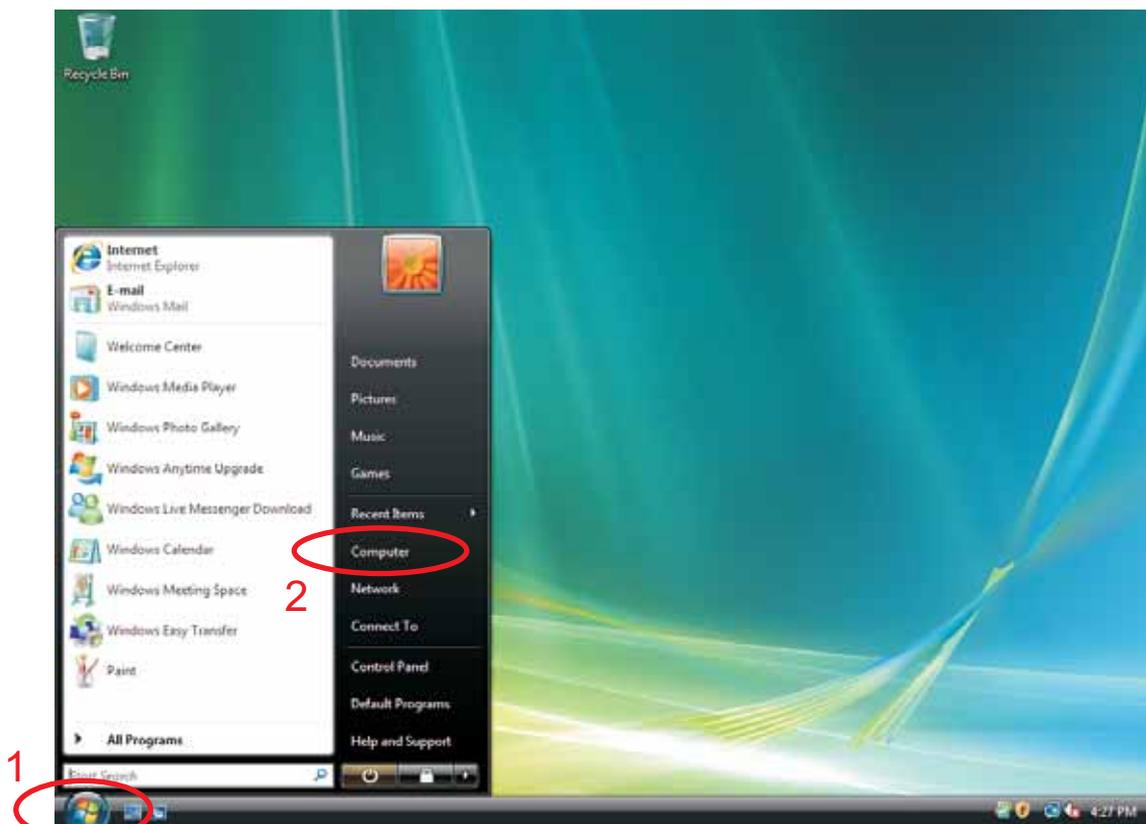
Step5 Go to “Other devices\USB Device” and click right button of your mouse. Choose “Update Driver”.



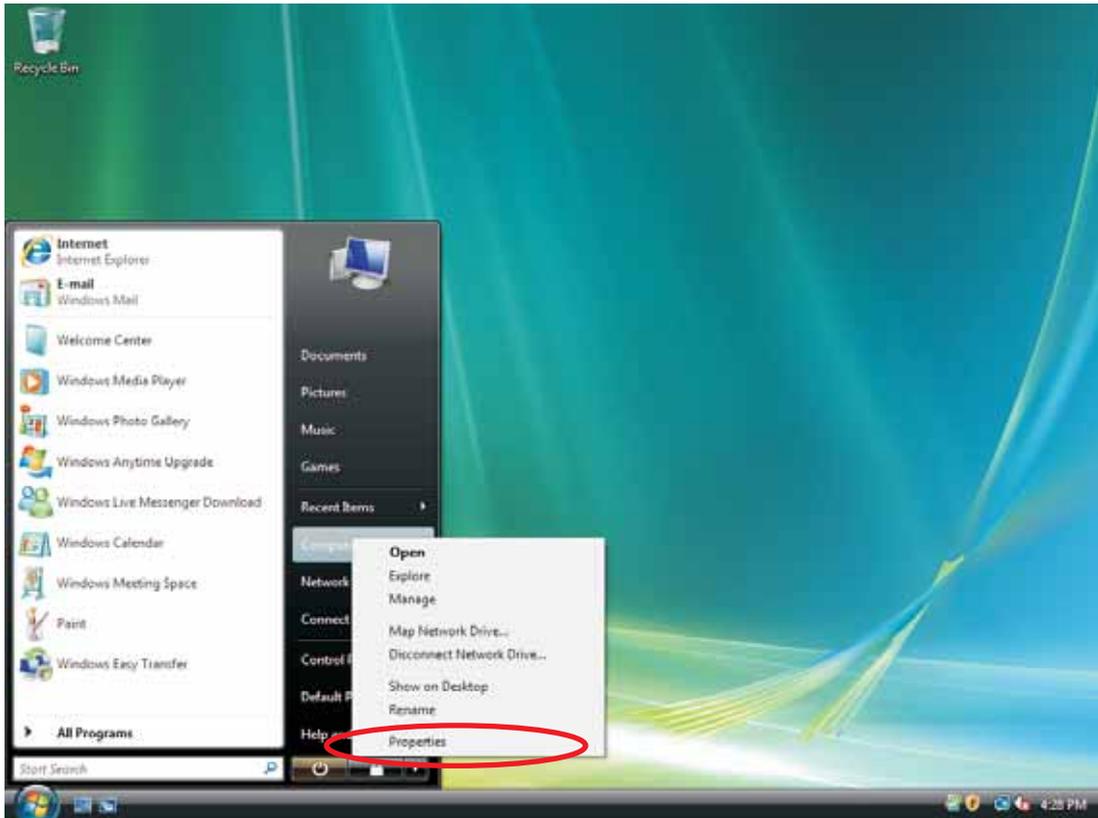
Step6 It will go to Step1 on page03. Please follow the instruction to solve your problem.

4-2 (For Windows VISTA) Begin to play or during playing,if you connect the PC with USB is no response.Please try following steps.

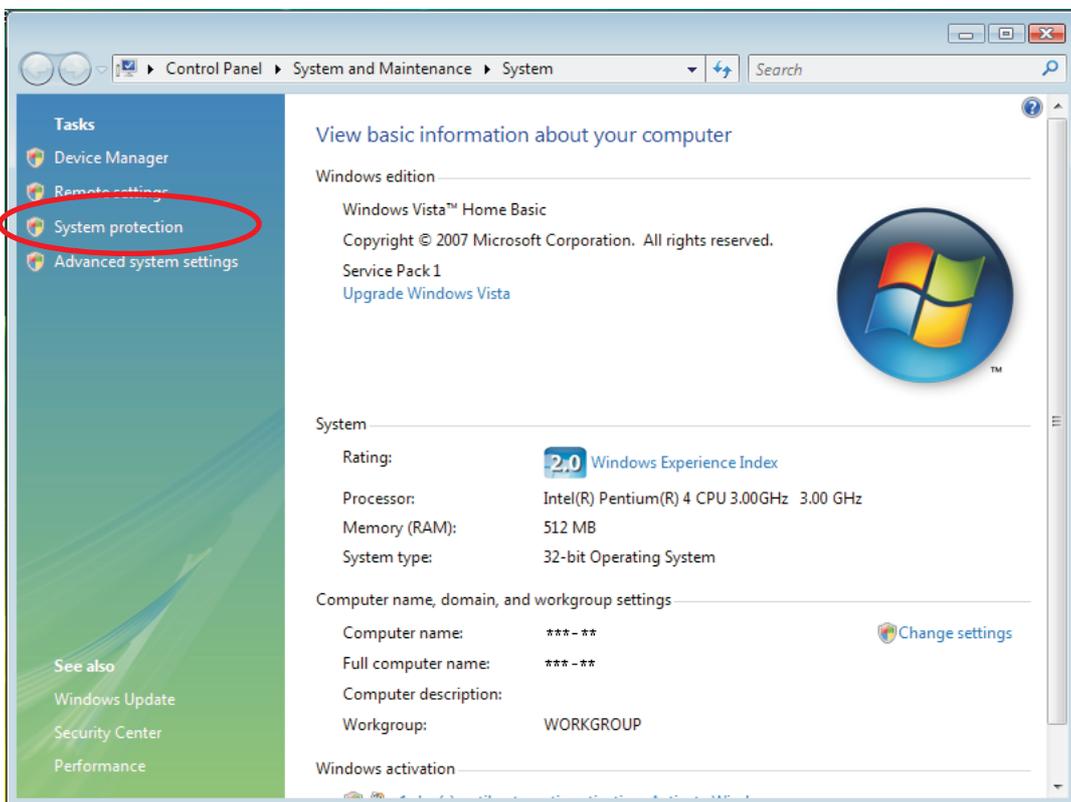
Step1 Move your mouse to “My Computer”.



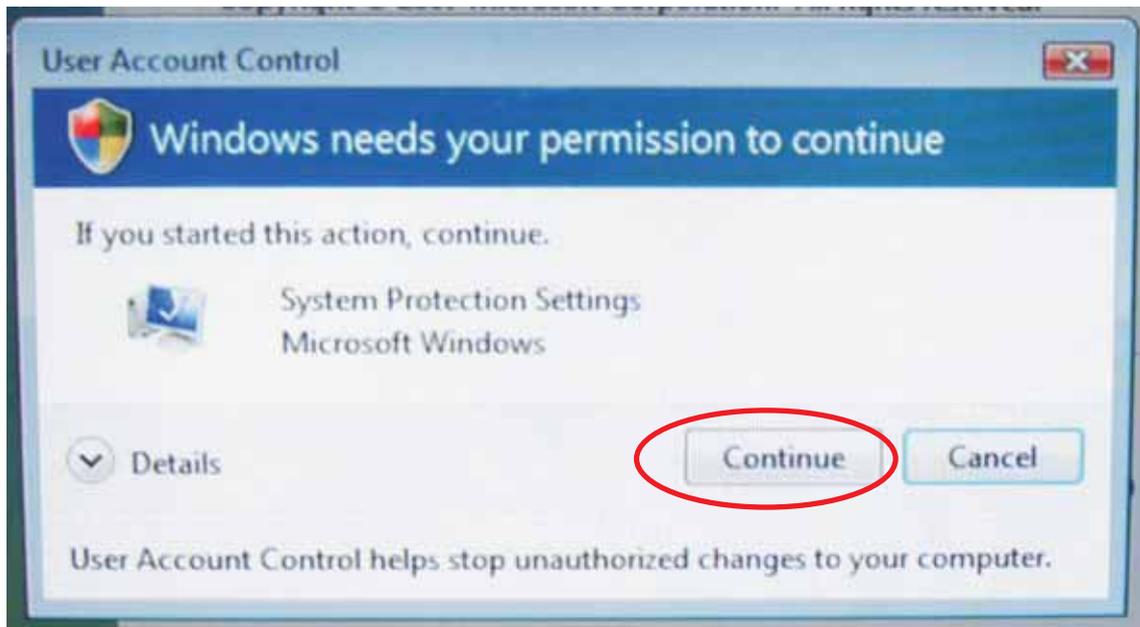
Step2 Click right button of your mouse and choose "Properties".



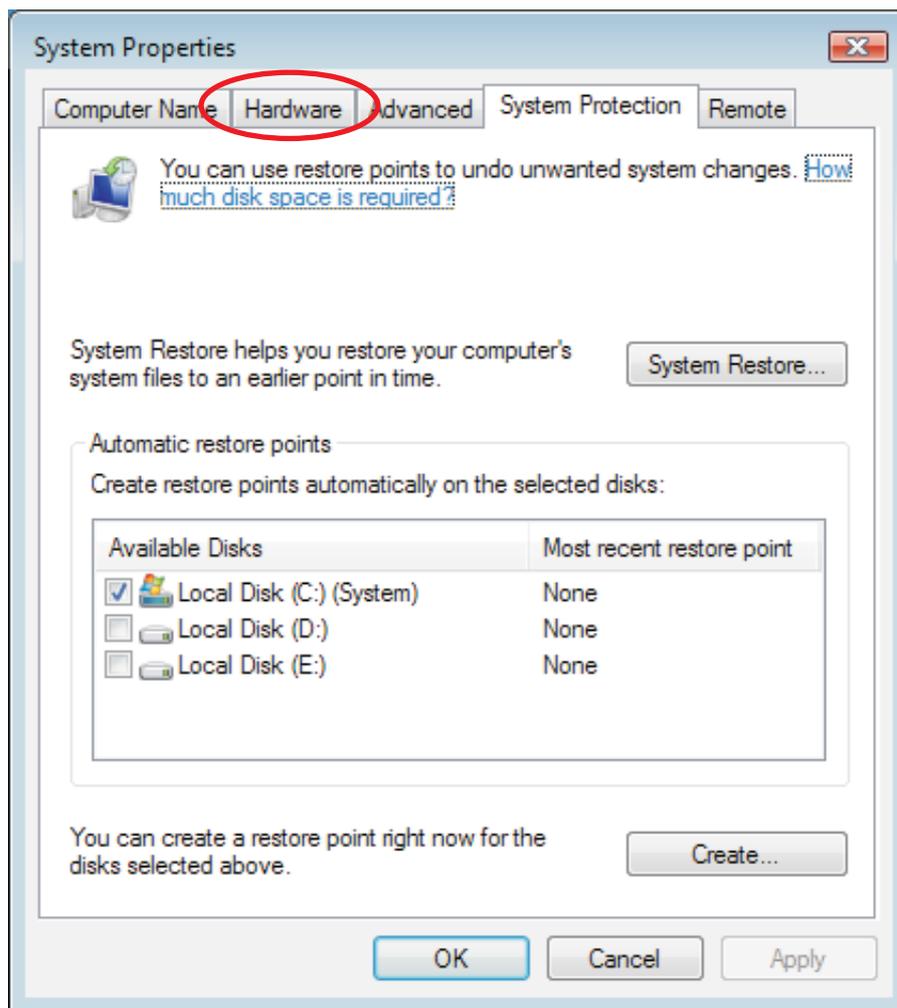
Step3 Click "System protection".



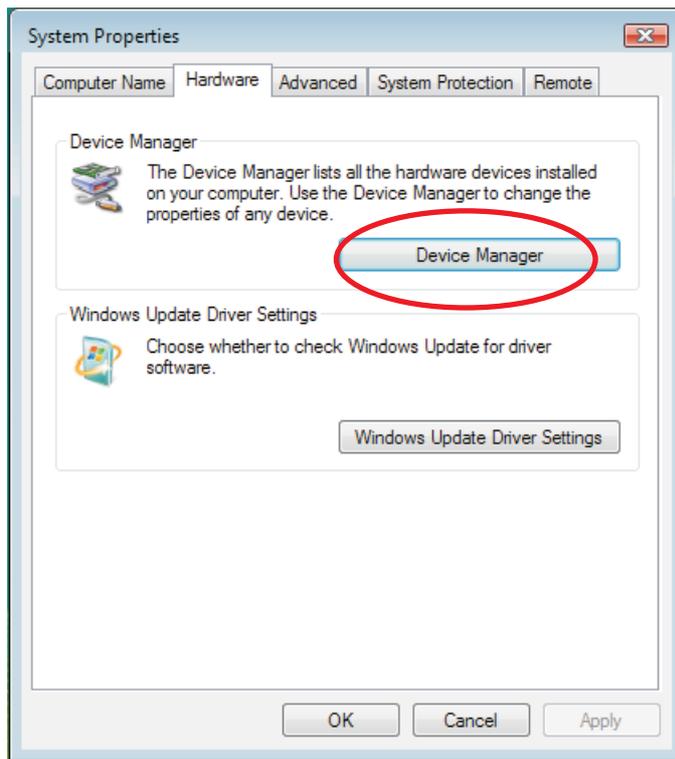
Step3 Click "Continue".



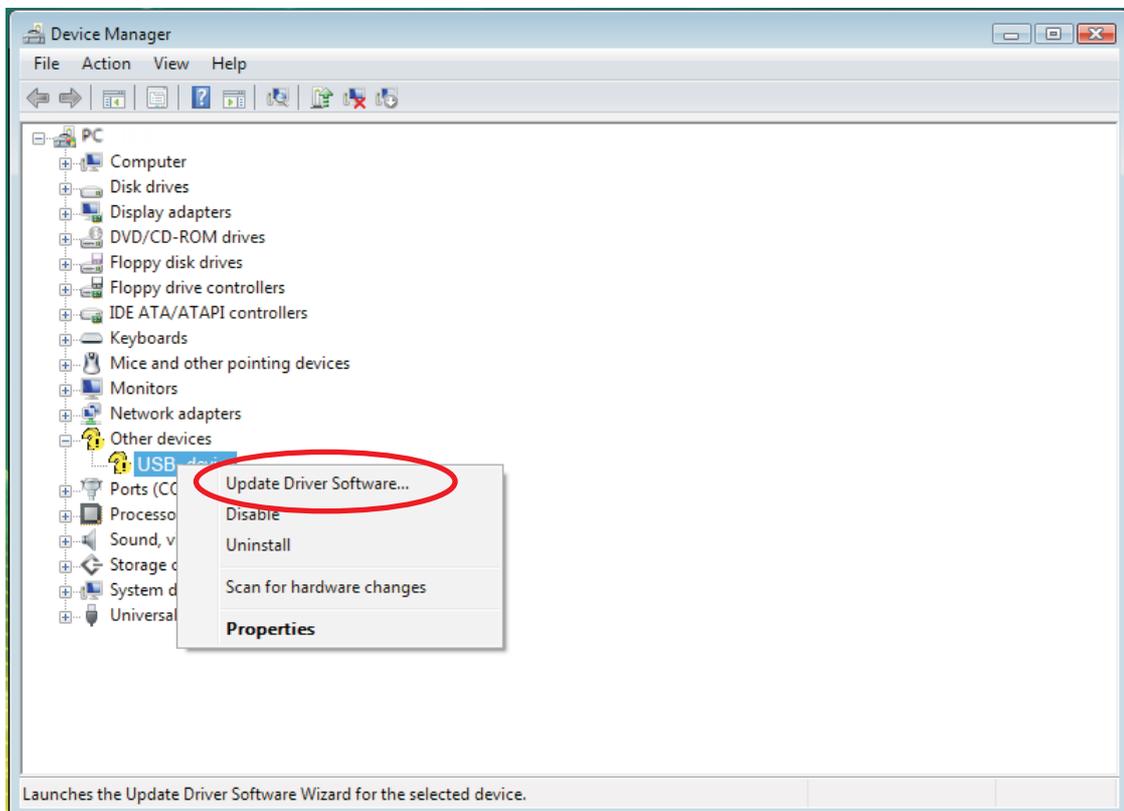
Step4 Click "Hardware".



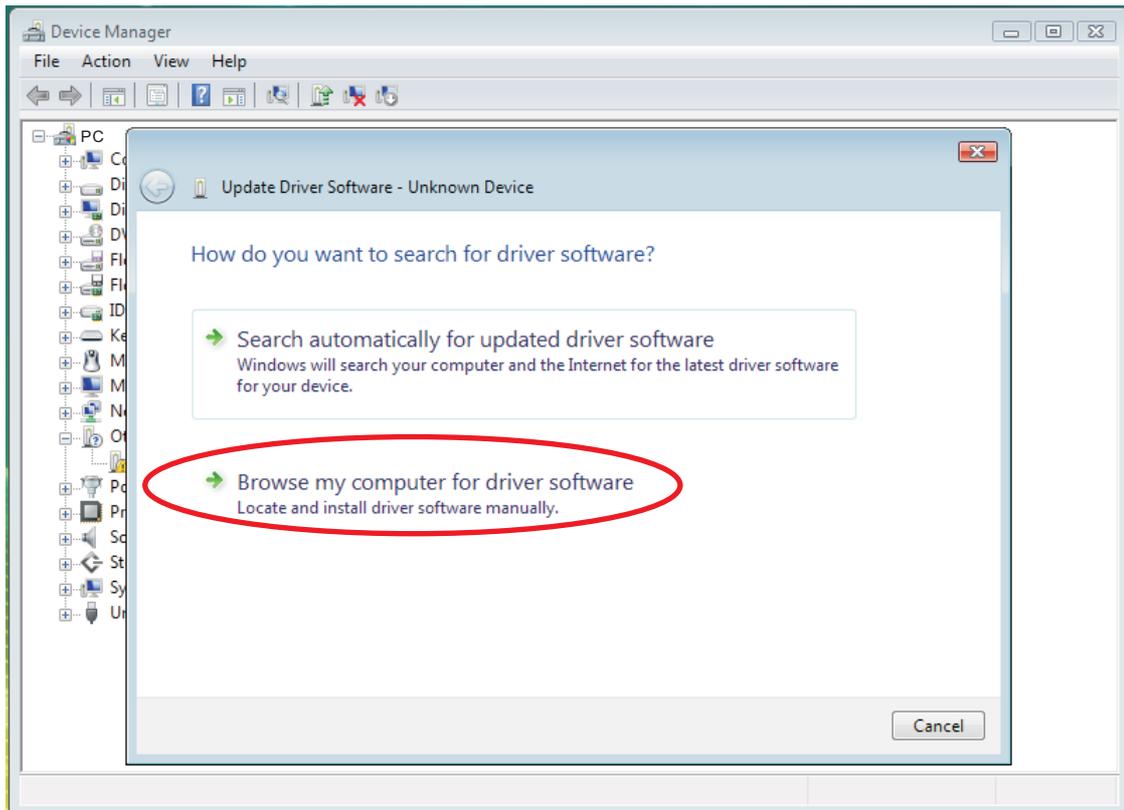
Step5 Click"Device Manager"



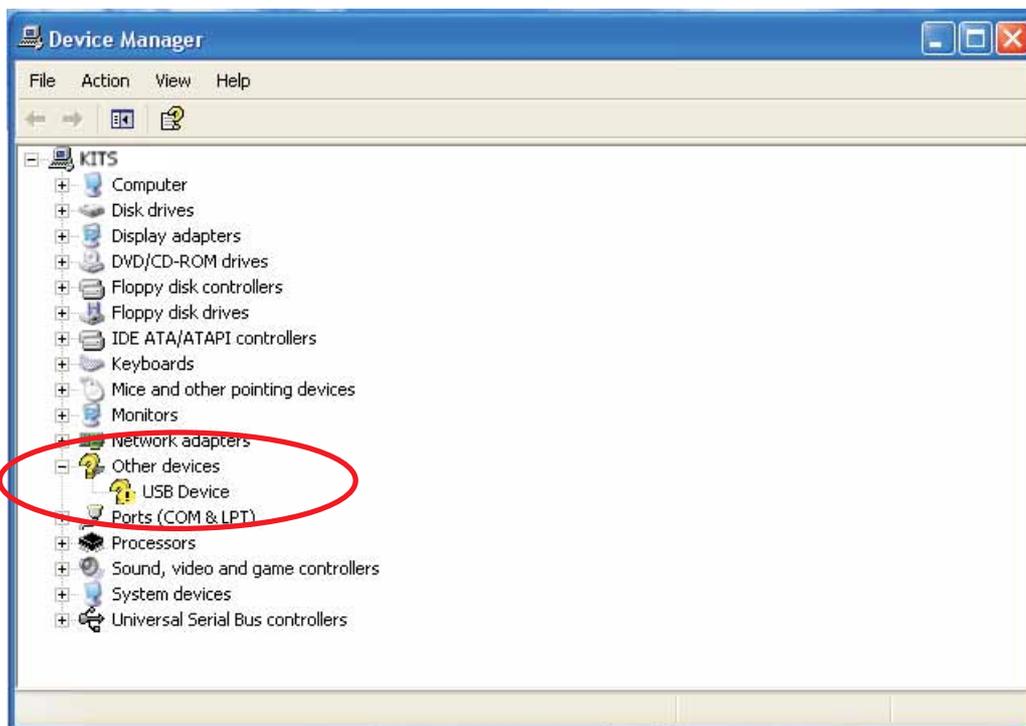
Step5 Go to "Other devices\USB Device" and click right button of your mouse. Choose "Update Driver Software..."



Step6 Choose the second choice. It will go to Step1 on page13.
Please follow the instruction to solve your problem.



4-3 If there is no " Other devices" shown on your computer.
Please reconnect your Robotic Arm with computer or change
other USB port of your computer.



4-4 If the gearbox dose not work smoothly. Please Check motor
wire connection.