

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

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Caution

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

- high humidity.
- ♦ direct sunlight.
- ◆ static electricity.
- reach of small children.
- Iiquid 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.)

Found New Hardware Wizard					
Welcome to the Found New Hardware Wizard Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy Can Windows connect to Windows Update to search for software? Yes, this time only Yes, now and every time I connect a device No, not this time					
< Back Next > Cancel					





Step4 Browse...

Found New Hardware Wizard
Please choose your search and installation options.
 Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
1 - Search removable media (floppy, CD-ROM) 2
Include this location in the search: Browse Don't search L will choose the driver to install
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel



Step5 Choose your CD-ROM and USB Driver folder.



Step6 Check the path and go Next.

Found New Hardware Wizard
Please choose your search and installation options.
 Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
G:\USB Driver Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
2
< Back Next > Cancel

Step7 wizard searches..



Step8 Continue Anyway

Please wait	while the wizard Ha	rdware Installation
¢	ELAN USB Device	The software you are installing for this hardware: ELAN USB Device
	×20	has not passed Windows Logo testing to verify its compatibility with Windows XP. (<u>Tell me why this testing is important</u>) Continuing your installation of this software may impai or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly
	-	contact the hardware vendor for software that has passed Windows Logo testing.
		Continue Anyway STOP Installation

Step9 Finish USB DRIVER install.

Found New Hardware Wizard							
	Completing the Found New Hardware Wizard						
	The wizard has finished installing the software for:						
	ELAN USB Device						
	Click Finish to close the wireard.						
	< Back Finish Cancel						
	$\overline{\nabla}$						

Step10 Showing Below of the screen.



1-3.Install MAIN PROGRAM

Step1 Choose "My Computer".







Step3 Choose Robotic Arm folder.







Step6 Click "Next" to continue.



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

	😼 Robotic Arm Setup
	User Information Enter your user information and click Next to continue.
1	Name: XXX Company: XXX
	2
	< <u>Back</u> <u>Next</u> > <u>Cancel</u>

Step8 Click "Next" to continue.



Step9 Click "Next" to continue.



Step10 Click "Next" to continue.



Step11 Wait...



$\overline{\nabla}$

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"

		— X—
0	Found New Hardware - Unknown Device	
	Browse for driver software on your computer	
	Search for driver software in this location:	
	✓ Include subfolders	
		_
	Next Can	cel

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

Step7 Check the path and go Next.

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Step9 Wait...

	Found New Hardware - Unknown Device	X
	Installing driver software	
St	tep10 Close	
	Found New Hardware - ELAN USB Device	×
	The software for this device has been successfully installed	
	Windows has finished installing the driver software for this device:	
	ELAN USB Device	
	Clos	
C1	top11 Showing Bolow of the scroop	
3		
	ELAN USB Device × Device driver software installed successfully.	
	🖉 🕐 🖡 🕼 10:37 AM	

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2-3.Install MAIN PROGRAM

1

Step1 Go to computer choice.

			1			
Internet Explorer						
E-mail Windows Mail		w.C				
Welcome Center		Documents				
Windows Media Player	ts.	Pictures				
Windows Photo Galler	ř.	Music				
Windows Anytime Upg	grade	Games				
Windows Live Messeng	ger Download	Recent Items	; •			
Paint	2 🤇	Computer		>		
Windows Calendar		Network				
Windows Meeting Spa	ce	Connect To				
Windows Easy Transfer	ę.	Control Pane	el 👘			
		Default Prog	rams			
All Programs		Help and Su	pport			
Start Search	Q	Ċ				
	Ţ	ŀ		_		
Step2 Click your	CD-ROM i	con.				
Compute	er 🕨				▼ ⁴ Sec	ırch
🌗 Organize 👻 🚆 Views	🔹 😰 System	properties 👩	Uninstall or	change a prog	ram 🚊 Map i	network driv
Favorite Links	Name Ty	/pe T	otal Size	Free Space		
Documents	Hard Disk Drives	; (3)				
Pictures		Disk (C:)		Local D	isk (D:)	
🚯 Music	51.5 GE	8 free of 58.5 G	B	60.5 GB	free of 69.3 GB	
Recently Changed	Local [Disk (E:)				
Searches	14.3 GE	3 free of 21.0 G	В			
Ublic Public	Devices with Re	movable Stora	ge (3)			
	Floppy	Disk Drive (A:)		CD-RW	Drive (F:)	
	DVD RV Arm	W Drive (G:) Ro	obotic			

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Step3 Choose Robotic Arm folder.

Compute Organize ▼ 🚆 Views	er 🕨 DVD RV	V Drive (G:) Ro Irn to disc 🛛 <table-cell></table-cell>	botic Arm 🕨		• •
Favorite Links	Name Files Curre	Size	Type	Date modified	Locat
 Documents Pictures Music 	F	Manual ile Folder		Robotic Arr File Folder	m
 Recently Changed Searches Public 	F	JSB Driver ile Folder			
Ja rabite					
		~			

Step4 Click "setup" icon.

Organize Views	Drive (G:) Rol	botic Arm 🕨	Robotic Arm	c
Favorite Links	Name	Size	Туре	Date modif
 Documents Pictures Music Recently Changed Searches Public 	Files Conte	ntiy on the [etup etup Applica	Disc (1)	

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.

🛃 Robotic Arm Setup 🛛 💽
Shortcut Folder Where would you like the shortcuts to be installed?
The shortcut icons will be created in the folder indicated below. If you don't want to use the default folder, you can either type a new name, or select an existing folder from the list.
Shortcut Folder:
Robotic Am 👻
< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

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Step10 Click "Next" to continue.

Step11 Wait...

🛃 Robotic Arm Setup	E
Installing Robotic Arm Please wait	
Installing Files C:\Program Files\Robotic Am\flash\player.exe	
	Cancel

Step14 Close
Robotic Arm Setup
Installation Successful The Robotic Arm installation is complete Adobe Flash Player ActiveX Setup: Completed
Completed
Show <u>d</u> etails
<u>Č</u>
<u>F</u> inish

Step15 Finish setup

3.HOW TO PLAY

3-1.Start the program

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

3-2. Opening animation

Click "PLAY" to get into the program.

3-3.MENU

Choose a mode to play.

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3-4.BASIC MODE

Mouseover effect : Scroll the mouse wheel to operate motor

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.

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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.

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".

\bigtriangledown

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

Step3 Click "Hardware".

System Proper	ties		? 🔀
System Proper System Res General	store Auto Computer Name	omatic Updates Hardware System: Microsoft Windows Home Edition Version 2002 Service Pack 2 Registered to: *** *** *** *** Computer: Intel(R) Pentium(R) 4 CPU 3.00 GHz, 512 MB	Remote Advanced XP **-***** 3.00GHz of RAM
		OK Cancel	Apply

Step4 Click"Device Manager"

System Propert	ies		? 🛛
System Rest	ore Automa	itic Updates	Remote
General	Computer Name	Hardware	Advanced
Device Manag	jer		
The on y prop	Device Manager lists all our computer. Use the D erties of any device.	the hardware device evice Manager to ch	s installed ange the
	(Device Ma	nager
Drivers Drivers com how Hardware Prof Adiffe	er Signing lets you make patible with Windows. W Windows connects to W Driver Signing iles dware profiles provide a v rent hardware configurati	sure that installed drivindows Update lets y /indows Update for d Windows U way for you to set up vions.	vers are iou set up rivers. pdate
		Hardware F	Profiles
	ОК	Cancel	Apply
			

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

🖴 Device Manager	
File Action View Help	
Computer Disk drives Display adapters DVD/CD-ROM drives Floppy disk controllers Floppy disk controllers DVD/CD-ROM drives Floppy disk controllers DVD/CD-ROM drives Floppy disk controllers Network adapters Monitors Network adapters Ports (CC Ports (CC Disable Uninstall System d Floppy disk controllers Control devices Properties Properties	
Launches the Hardware Update Wizard for the selected device.	

- 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".

Step3 Click "System protection".

🕞 💬 🗸 🖳 🕨 Control Panel 🕨	System and Maintenance 🕨 Sys	stem 👻 🔩 Search	م
Tasks Device Manager Remote settings System protection Advanced system settings	View basic information Windows edition Windows Vista™ Home B Copyright © 2007 Micros Service Pack 1 Upgrade Windows Vista	n about your computer asic roft Corporation. All rights reserved.	
	System Rating: Processor: Memory (RAM): System type:	2.0 Windows Experience Index Intel(R) Pentium(R) 4 CPU 3.00GHz 3.00 512 MB 32-bit Operating System	SHz ⊨
See also Windows Update	Computer name, domain, an Computer name: Full computer name: Computer description:	d workgroup settings ***-** ***-**	Change settings
Security Center	Workgroup:	WORKGROUP	
Performance	Windows activation	10 10 10 A 10 1 100 1	

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

Step3 Click "Continue".

User Account Control Windows needs your permission t	o continue
If you started this action, continue.	
System Protection Settings Microsoft Windows	
✓ Details	ntinue Cancel
User Account Control helps stop unauthorized char	iges to your computer.

Step4 Click "Hardware".

System Properties	—
Computer Name Hardware dvanced Sy	stem Protection Remote
You can use restore points to undo to much disk space is required?	unwanted system changes. How
System Restore helps you restore your compu system files to an earlier point in time. Automatic restore points Create restore points automatically on the s	uter's System Restore
Available Disks	Most recent restore point
🔽 💒 Local Disk (C:) (System)	None
Local Disk (D:)	None
You can create a restore point right now for the disks selected above.	he Create
ОК	Cancel Apply

Step5 Click"Device Manager"

System Prope	erties	×
Computer Na	me Hardware Advanced System Protection Remote	
C Device M	lanager	
Ż	The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.	
	Device Manager	
Windows	Update Driver Settings	
2	Choose whether to check Windows Update for driver software.	
	Windows Update Driver Settings	
	OK Cancel App	ply

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.