Robotic Arm Edge with USB PC Interface
User's Manual

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Product Introduction
This kit allows your existing Robotic Arm Edge 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 Edge through your computer.

Warning
All rights reserved, reproduction in any manner in whole or in part without permission of OWI Inc. 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 Edge and PC with the USB cable.
C. Turn ON the Robotic Arm Edge.
D. Install USB Driver.

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

Step 2 (If this window does not show on your screen then go straight to step 3.)

Step 3
Step 4: 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.
  - [ ] Search removable media (floppy, CD-ROM...)
  - [x] Include this location in the search:

- 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.

Step 5: Choose your CD-ROM and USB Driver folder.

Browse For Folder

Select the folder that contains drivers for your hardware.

- Desktop
- My Documents
- My Computer
  - 3½ Floppy (A:)
  - Local Disk (C:)
  - Local Disk (D:)
  - CD-RW Drive (E:)
  - Robotic Arm Edge (F:)
  - Manual
  - Robotic Arm Edge
  - USB Driver
    - amd64
    - ia64
    - x86
  - Local Disk (G:)
  - Shared Documents
  - OWT's Documents
  - My Network Places

To view any subfolders, click a plus sign above.

OK  Cancel
Step 6  Check the path and go Next.

Step 7  wizard searches..
Step 8  Continue Anyway

Step 9  Finish USB DRIVER install.

Step 10  Showing Below of the screen.
1-3. Install MAIN PROGRAM

Step 1. Choose “My Computer”.

Step 2. Click your CD-ROM icon.
Step 3: Choose Robotic Arm Edge folder.

Step 4: Click "setup" icon.

Step 5: Click "OK" to continue.
Step 6: Click “Next” to continue.

Step 7: Fill in your name or company and click “Next” to continue.
Step 8 Click “Next” to continue.

Step 9 Click “Next” to continue.

Step 10 Click “Next” to continue.
Step 11  Wait...

Step 12  Click “Close” to continue.

Step 13  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 Edge and PC with the USB cable.

   C. Turn ON the Robotic Arm Edge.

   Turn ON
D. Install USB Driver.

Step 1: Choose the first choice.

Step 2: Click “Continue” to go next.
Step 3  Choose the third choice.

Step 4  Choose the second choice.
Step 5: Click “Browse”

Step 6: Click your CD-ROM and choose USB Driver folder. Click “OK” to continue.
Step 7 Check the path and go Next.

1. Browse for driver software on your computer
   - Search for driver software in this location: \USB Drive
   - Include subfolders

Step 8 Choose the second choice.

2. Windows can't verify the publisher of this driver software
   - Don't install this driver software
     You should check your manufacturer's website for updated driver software for your device.
   - Install this driver software anyway
     Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
Step 9  Wait...

Step 10  Close

Step 11  Showing Below of the screen.
2-3. Install MAIN PROGRAM EDGE

Step 1: Go to computer choice.

Step 2: Click your CD-ROM icon.
Step 3: Choose Robotic Arm Edge folder.

Step 4: Click “setup” icon.

Step 5: Choose the second choice.
Step 6  Click “Next” to continue.

Step 7  Fill in your name or company and go next.
Step 8  Click “Next” to continue.

Step 9  Click “Next” to continue.
Step 10  Click “Next” to continue.

Step 11  Wait...
Step 14  Close

Step 15  Finish setup
3. HOW TO PLAY

3-1. Start the program
Click “Robot Arm Edge” 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.

BASIC mode
PROGRAM mode
Quit
3-4. BASIC MODE

- **Label**: Control mode for Keyboard or Mouse
- **Control button**: Motion area
- **Status**: Mouseover effect: Scroll the mouse wheel to operate motor
- **Back to menu**: Close button

The image shows a user interface for controlling a robotic arm in Basic Mode. The interface includes options for controlling the arm using a mouse or keyboard, with specific buttons for different motion commands and a status bar for mouseover effects.
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 Edge goes back to the original position.
DELETE : Selected command in the program display area is deleted.
3-6. PROGRAM MODE OPERATION GUIDE

Step 1: Choose “PROGRAM”.

Step 2: Begin to program your Robotic Arm Edge. Choose any of the motor gear in the Motion area. For example, choose “M1” gear and use “Control button” to change the time you want the Robotic Arm Edge to be moved. The time is shown at the “Data display” area.
Step 3  Press “ENTER” to write the data in “Data box”.

Step 4  The data in “Data box”.

Data box
Step 5 Keep to choose another motor gear. Choose “M1” and “M3” gear and change the data.

Step 6 Press “ENTER”. The data is written into the “Data box” at the same time.
Step 7: If you want to insert a movement before the data in the Data Box, click “INSERT” at “Write data area”.

Step 8: Change the time with the motors you want to change.
Step 9 Press “ENTER”. The data is inserted into the “Data box” at the same time.

Step 10 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.
Step 13 To see the movement you have been set. Press “START” in “Program tools” area.

Step 13 The movement data will show on screen at the same time while the Robotic Arm Edge 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.

Step 1 Move your mouse to "My Computer".

Step 2 Click right button of your mouse and choose "Properties".
Step3 Click “Hardware”.

System Properties

System:
Microsoft Windows XP
Home Edition
Version 2002
Service Pack 2

Registered to:
***
***
******-*****-********-*****

Computer:
Intel(R)
Pentium(R) 4 CPU 3.00GHz
3.00 GHz, 512 MB of RAM
Step 4: Click "Device Manager"
Step 5: Go to “Other devices\USB Device” and click right button of your mouse. Choose “Update Driver”.

Step 6: It will go to Step 1 on page 03. 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.

Step 1: Move your mouse to “My Computer”.

1. Start Search
2. Computer
Step 2  Click right button of your mouse and choose “Properties”.

Step 3  Click “System protection”.
Step3 Click “Continue”.

Step4 Click “Hardware”.

![Image of User Account Control]

![Image of System Properties]

You can use restore points to undo unwanted system changes. Much disk space is required.

System Restore helps you restore your computer’s system files to an earlier point in time.

Automatic restore points
Create restore points automatically on the selected disks:

<table>
<thead>
<tr>
<th>Available Disks</th>
<th>Most recent restore point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Disk (C:)</td>
<td>None</td>
</tr>
<tr>
<td>Local Disk (D:)</td>
<td>None</td>
</tr>
<tr>
<td>Local Disk (E:)</td>
<td>None</td>
</tr>
</tbody>
</table>

You can create a restore point right now for the disks selected above.
Step 5: Click "Device Manager"

Step 5: Go to "Other devices\USB Device" and click right button of your mouse. Choose "Update Driver Software...".
Step 6: Choose the second choice. It will go to Step 1 on page 13. 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 Edge with computer or change other USB port of your computer.

4-4 If the gearbox does not work smoothly. Please check motor wire connection.