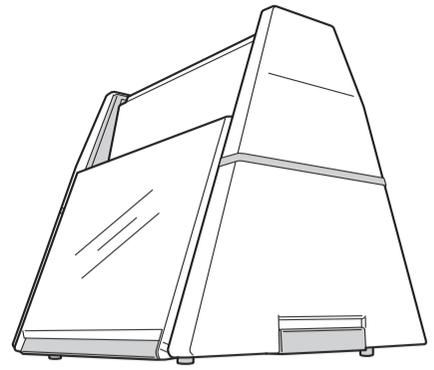


iModela

iM-01

First Step Guide

Note: Please refer to the information in "To Use This Machine Safely" first.



Roland DG Corporation

Thank you very much for purchasing the iModela (iM-01).

This machine is an all-new digital craft tool that uses a computer-controlled rotating tool turn your ideas into reality.

We're sure you will enjoy using it!

Imagine.


Thank you very much for purchasing this product.

- To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely and store it in a safe location.
- Unauthorized copying or transferral, in whole or in part, of this manual is prohibited.
- The contents of this operation manual and the specifications of this product are subject to change without notice.
- The operation manual and the product have been prepared and tested as much as possible. If you find any misprint or error, please inform us.
- Roland DG Corp. assumes no responsibility for any direct or indirect loss or damage which may occur through use of this product, regardless of any failure to perform on the part of this product.
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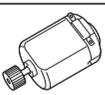
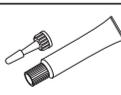
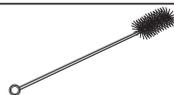
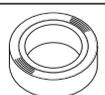
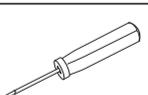
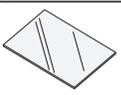
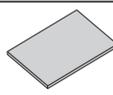
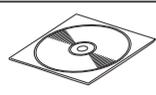
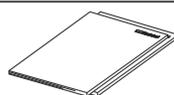
DOC-0941
R3-120622

<http://www.rolanddg.com/>

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Included Items

The following items are included with the machine. Make sure they are all present and accounted for.

 AC adapter, power cord (1 of each)	 USB cable (1)	 Cutting tool (1)	 Hexagonal wrench (1)	 Mounting screw (5)	 Spare hooks (2)
 Spindle motor (replacement) (1)	 Blower fan (1)	 Maintenance grease (1 tube)	 Cleaning brush (1)	 Double-sided tape (1 package)	 Flathead screwdriver (1)
 Cutting materials (for trial use) (acrylic plate, 1 mm thick) (1)	 Scrap plate (for trial use) (polypropylene plate, 5 mm thick) (1)	 Roland Software Package (1)	 Documentation (2)*	 Setting board (1)	

* "To Use This Machine Safely", "First Step Guide" (this document)

Getting Started

Required Computer Specifications

Operating system	Windows XP/Windows Vista/Windows 7 (32-bit or 64-bit versions)
CPU and memory	Core 2 Duo or greater, 1 GB or greater
Media drive	CD-ROM drive
Video card and display	1024x768 pixels, 16-bit color or greater

Visit the Roland DG web site (<http://www.rolanddg.com/>) for the latest information.

(*1) This software is a 32-bit application and therefore runs in WOW64 (Windows-On-Windows 64) when running on 64-bit versions of Windows operating systems.

(*2) This software has not been tested when running in the Windows XP mode in Windows 7.

Other Documentation Provided For This Machine

The following documentation is included with the machine in addition to this document.

iModela (iM-01) Master Guide (PDF)

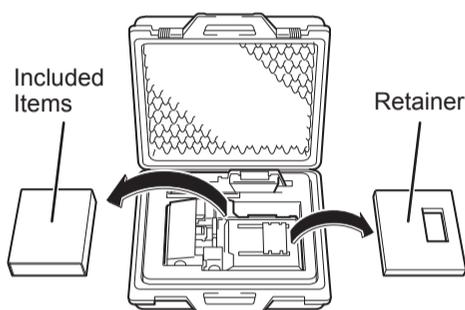
This guide contains detailed explanations of the machine's features, maintenance methods, and troubleshooting information. It is a part of the included Roland Software Package.

NC Code Reference Manual (PDF)

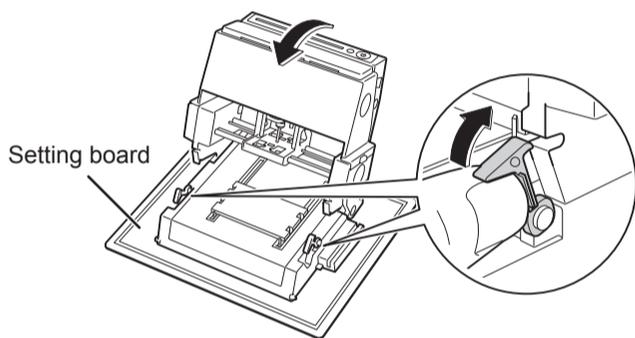
Read this manual when you want to perform NC code programming. It is a part of the included Roland Software Package.

Assembly and Software Installation

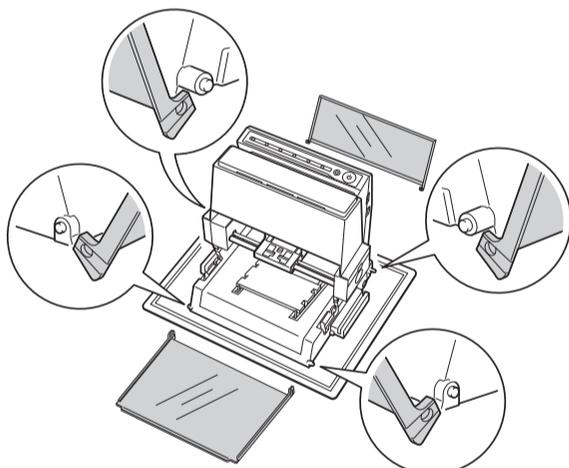
Step 1: Assembly



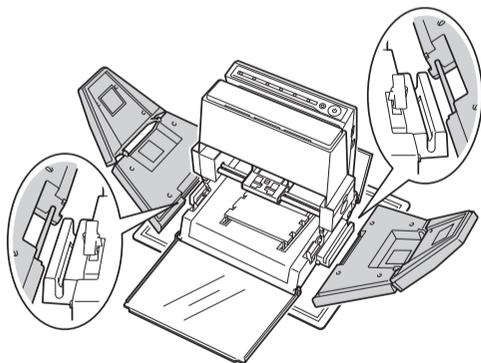
1 Turn the main unit upright and lock it with the hooks.



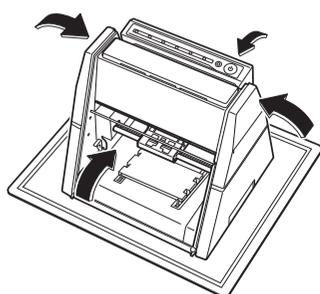
2 Attach the front and rear covers.



3 Attach the side covers.

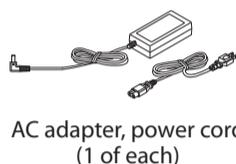


4 Close all covers.



Step 2: Connecting the Cables

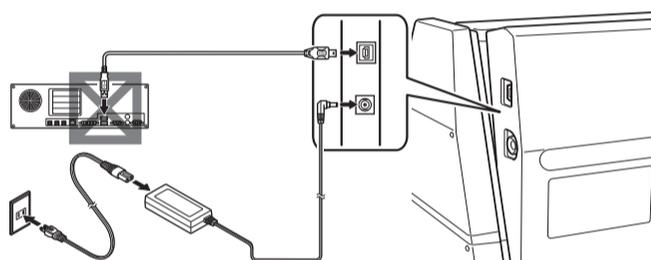
Things you will need



! Notice

Do not connect to the PC at this time.

If you connect the cables to the PC, you may not be able to install the Windows driver. Connect the cables to the PC when you install the software.



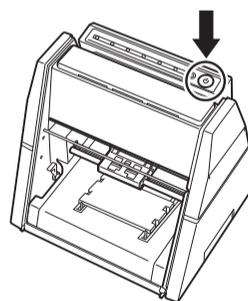
! WARNING Do not use this machine with a power supply that does not meet the ratings displayed on the AC adapter. Doing so may lead to fire or electrical shock.

! WARNING Do not use AC adapters or power cords other than those that are included with the machine. Doing so may lead to fire or electrical shock.

! WARNING Handle the AC adapter, power cord, plug, and electrical outlet correctly and with care. Never use any damaged items. Using damaged items may lead to fire or electrical shock.

! WARNING When using extension cords or power strips, make sure they are rated higher than the machine's ratings for voltage, frequency, and amperage. There is a risk of fire when many loads are connected to one electrical outlet or when using long extension cords.

Step 3: Turning the Machine On



Press the power button. Initialization begins. When the green lamp switches from flashing to on, the initialization has finished.

Step 4: Installing the Software

Things you will need



Roland Software Package (1)

Software that will be installed

iModela Creator	Used to create output data.
iModela Controller	Used to control the machine, confirm operation status, perform maintenance, etc.
iModela Driver	Driver software required for sending data from the computer to the machine.
iModela Manuals	Displays the Master Guide and the NC Code Reference Guide.
Virtual Modela	Used to view a 3D preview of data created with iModela Creator and confirm the result of the process before actually cutting.
SFEit2	Used to extract the center line of fonts in order to create designs that use letters.

1. Installing the Software

- 1 Before installing the software, make sure that the machine and computer are not yet connected via USB.
- 2 Insert the Roland Software Package CD-ROM into the computer.
When using Windows Vista or Windows 7: Click [Run menu.exe] if the autoplay screen is displayed. If the [User Account Control] screen is displayed, click [Allow] or [Yes] to continue with the installation.
After a few moments, the installation menu is displayed.



Click [Install].

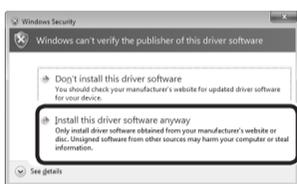
Click [Custom Install], you can install software separately. You can also install optional softwares, MODELA Player4 etc. For information on the method of installation, refer to the "iModela Master Guide".



Select [Install], select [Roland iM-01] as the model name, select [USB] as the port, and then click [Start].

Driver installation starts. Follow the on-screen instructions and continue with the installation.

When using Windows Vista or Windows 7



If the screen shown here is displayed, click [Install this driver software anyway].

When using Windows XP



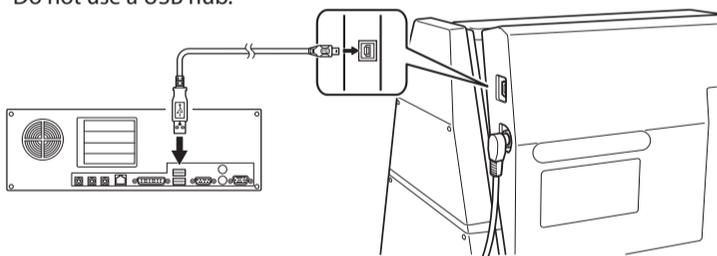
If the screen shown here is displayed, click [Continue Anyway].

- 4 Follow the on-screen instructions and continue with the installation.
Installation information for each software item will be displayed automatically as needed.
- 5 When installation is complete, click  in the installation menu.
- 6 Eject and remove the CD-ROM.

2. Configuring iModela

- 1 Connect the machine and the computer with a USB cable.

Please use the included USB cable.
Do not use a USB hub.



When using Windows Vista or Windows 7

The driver will be installed automatically.

When using Windows XP



Select [No, not this time] and click [Next].



Select [Install the software automatically] and click [Next].



Click [Finish].

If the following screen is displayed during installation



Click [Continue Anyway].

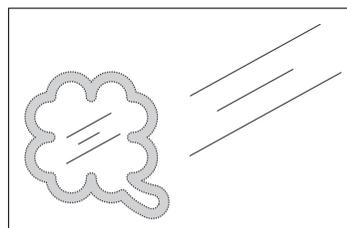


Eject and remove the CD-ROM, and then click [Back] and repeat from the last screen.

Initial Cutting

Use the sample data to create a clover.

The gray area of the cutting material will be cut.



Step 1: Run-In

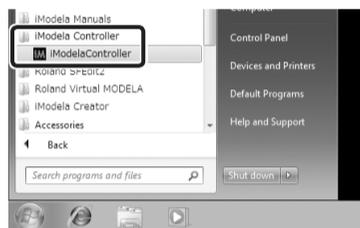
First, perform a run-in. If this is the first time that you have used this machine, if this machine has not been used for a long time, or if the machine is being used in a low temperature environment, you must perform a run-in.

! Notice

When performing a run-in, make sure that the cutting tool and cutting material are disengaged. If the cutting tool and cutting material are not disengaged, an undesired area may be cut.

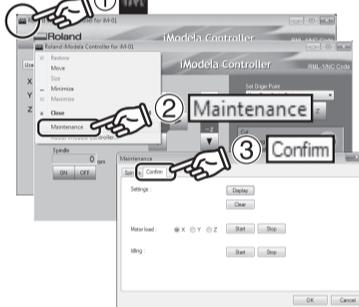
1. Procedure

- 1 Start iModela Controller, which is used to control the machine.



On the taskbar, click [Start], [All Programs], [iModela Controller], and then [iModelaController].

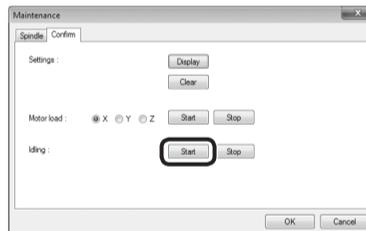
- 2



Click in the order shown left.

- 1 Click  in the top-left of the screen.
- 2 Click [Maintenance].
- 3 Click the [Confirm] tab.

- 3



Click [Start] next to Idling.
The operation takes approximately 10 minutes.

- 4



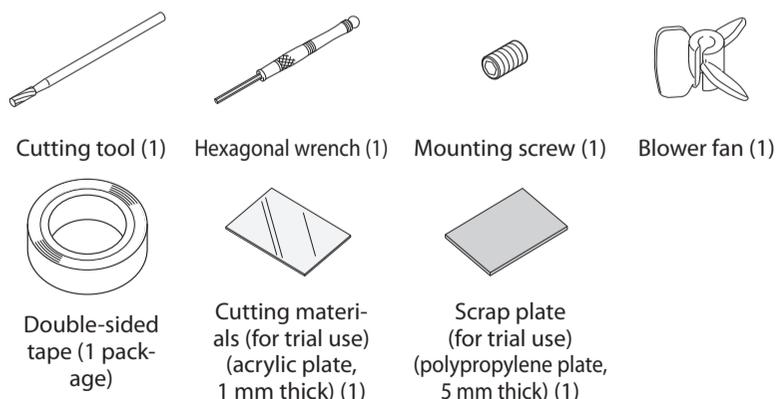
Click [OK] when the screen shown below is displayed.

- 5 Click  on the maintenance screen.



Step 2: Loading the cutting tool and the cutting material

Things you will need

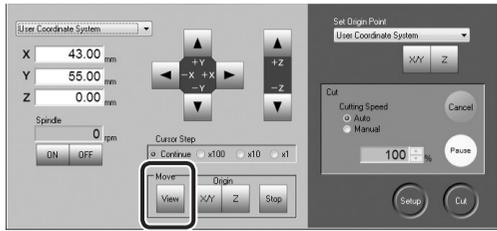


! CAUTION Be careful not to injure yourself when you handle the sharp edges of the cutting tool.

1. Mount the cutting tool.

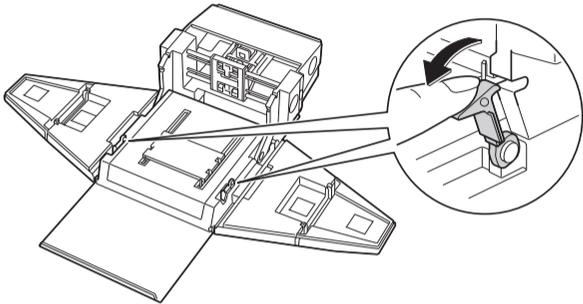
1 Click the [View] in iModela Controller.

The spindle head moves to the center, and the workpiece table moves to the front.

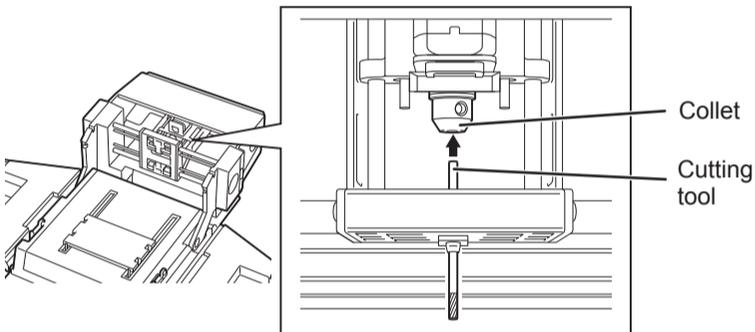


2 Open the unit.

Open the front, rear, and side covers. Slowly push the main unit down onto its back.

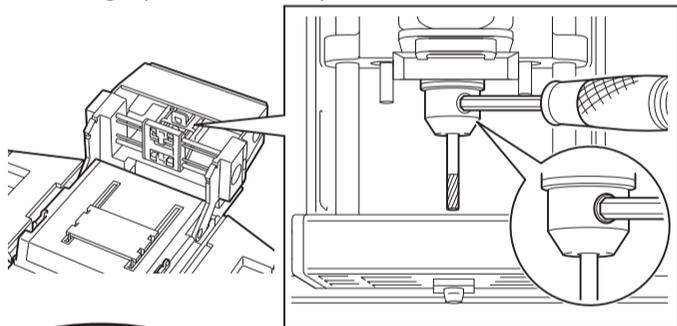


3 Insert the cutting tool into the collet as far as it will go.



4 Fix the cutting tool in place.

Use a hexagonal wrench (included item) to insert the mounting screw, thereby fixing the tool in place. If you cannot see the mounting screw hole, slightly turn the collet by hand.



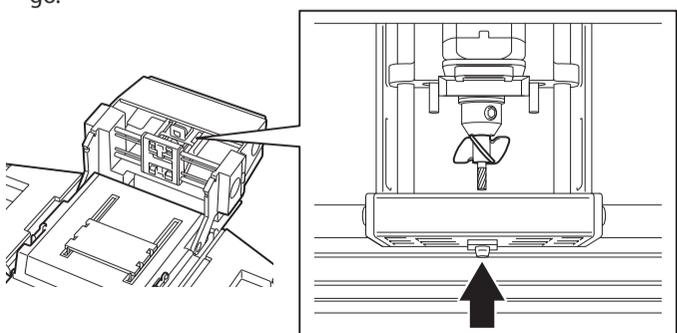
POINT!

Turn the hexagonal wrench clockwise until the mounting screw touches the cutter. Then turn the wrench by about 15 degrees to secure the cutter in place. Tightening the screw further may cause damage to the cutter, making the cutter difficult to be removed from the collet.

- * Do not use a L-shaped hexagonal wrench with which the screw may be overtighten.
- * The generally called "Ultra hard cutter" includes an extremely hard bit and the portion made of steel which is gripped by the collet. As steel has low hardness, overtightening the mounting screw may cause damage to the cutter. The damaged cutter is likely to get caught in the collet, making the cutter difficult to be removed.
- * After cutting is finished, maintenance of a cutter is required. Please refer to the page "Maintenance of the Cutting Tool" of "iModela (iM-01) MASTER GUIDE."

5 Mount the blower fan on the cutting tool.

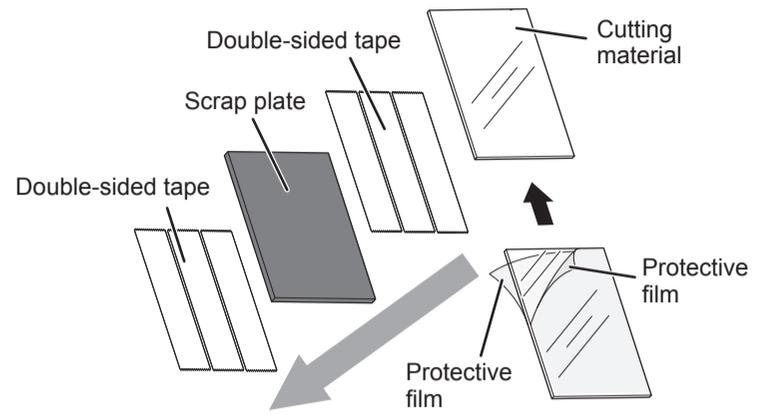
While being careful of the sharp edge, insert the blower fan as far as it will go.



2. Affix the cutting material.

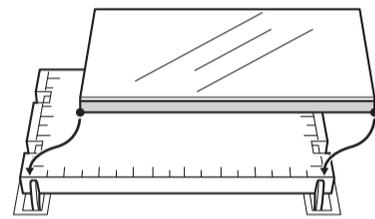
1 Affix the double-sided tape.

Peel the protective film off both sides of the trial-use cutting material, align the cutting material with the scrap plate and double-sided tape, and affix them.



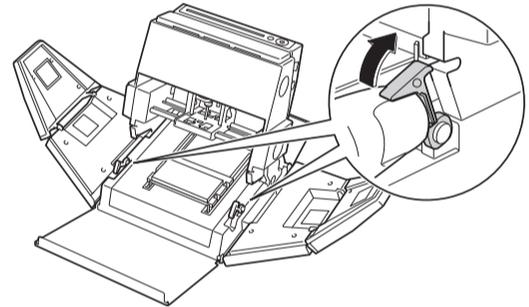
2 Affix the cutting material to the workpiece table.

Refer to the figure and affix the cutting material. After you have affixed the work, check that the cutting material cannot be easily moved from its position.



3 Return the unit to its original state.

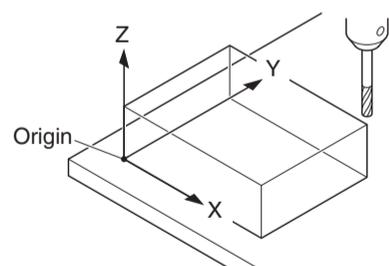
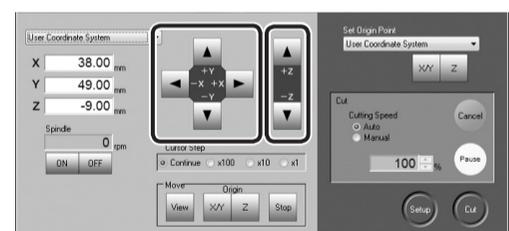
Raise the main unit back into place, fix it in place with the hooks, and then close the front, rear, and side panels.



Step 3: Setting the Cutting Origin

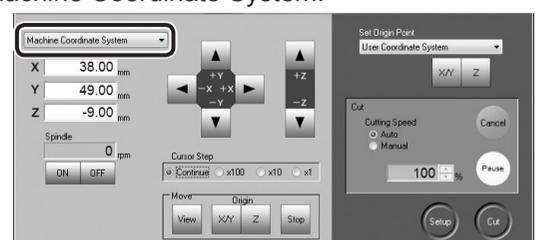
Set the X, Y, and Z cutting origins (the cutting reference position of which X, Y, and Z coordinates are "0").

Before setting the XYZ origin point, click the cursor buttons and confirm the movement for each axis.



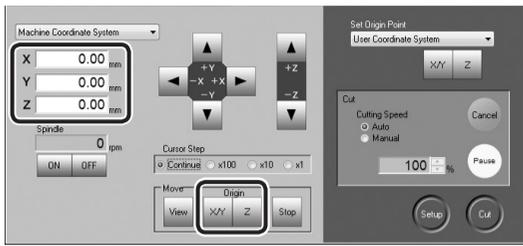
1. Prepare to set the origin point.

1 Select "Machine Coordinate System."



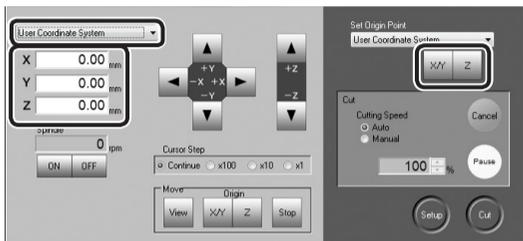
2 Click the "X/Y" origin button under "Move."

The spindle head and the workpiece table move, and the coordinates for X, Y, and Z each become "0.00 mm."
If you click "Z" and then click "X/Y," after moving to the "0.00 mm" position for the Z coordinates, they move to the "0.00 mm" position for the X and Y coordinates.



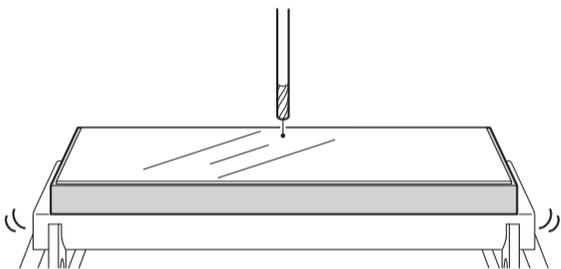
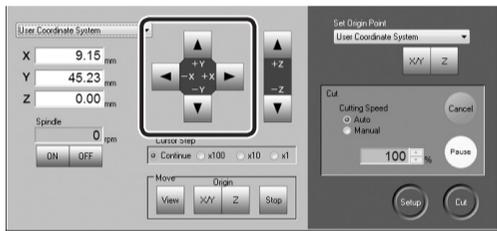
3 Select "User Coordinate System."

If "0.00 mm" is not displayed for X, Y, and Z, click the origin setting "X/Y" and "Z" buttons.



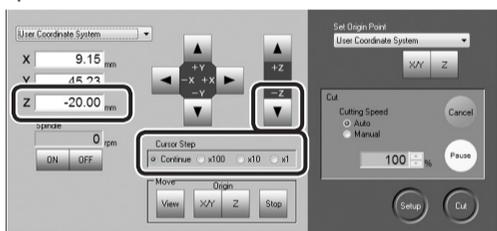
2. Set the Z origin point.

1 Click the [X] and [Y] cursor buttons to move the cutter above the cutting material.



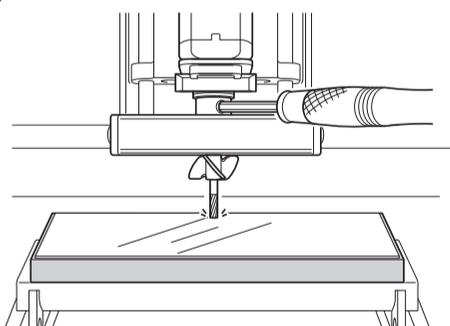
2 Click the [-Z] cursor button to lower the cutter to the position of which Z coordinate is "- 20.00 mm."

By selecting the cursor movement amount to "x100," "x10," or "x1," you can adjust the precision of the cursor movement.



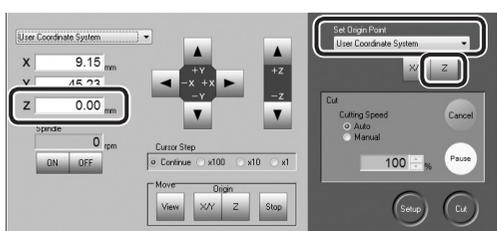
3 Loosen the mounting screw. The tip of the cutting tool should make contact with the surface of the cutting material.

Once contact is made, secure the cutting tool again by tightening the mounting screw.



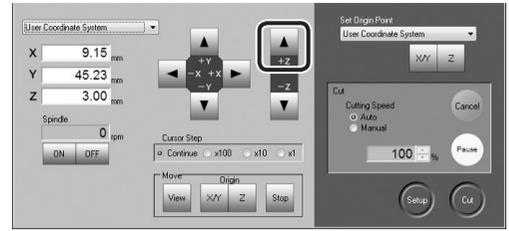
4 Confirm that "User Coordinate System" is selected under Set Origin Point, and then click the "Z" origin point setting.

The Z origin point is set, and "Z 0.00 mm" is displayed.



5 Click the "+Z" cursor button to raise the cutting tool.

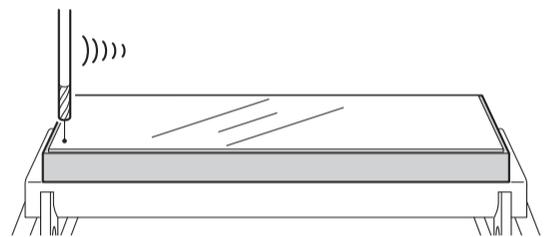
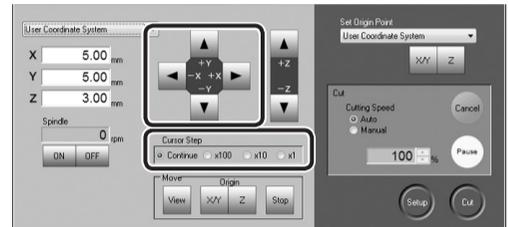
Next, you will move the cutting tool in the X and Y directions. Raise the cutting tool to a position where it is not located over the cutting material.



3. Set the XY origin point.

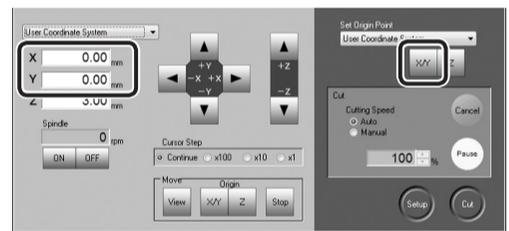
1 Click the "X" and "Y" cursor buttons and move each to "5.00 mm" units.

By setting the cursor movement amount to "x100," "x10," or "x1," you can adjust the precision of the cursor movement.



2 Click [X/Y] under Set Origin Point.

The XY origin points are set, and "X 0.00 mm" and "Y 0.00 mm" are displayed.



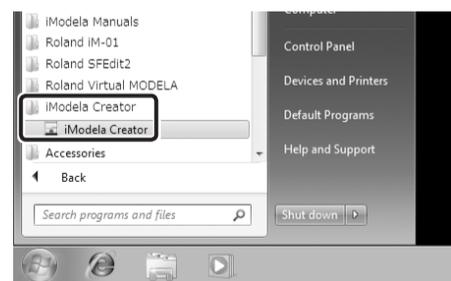
Step 4: Starting Cutting

This procedure describes how to cut using the sample data. From here, carry out the work by following the instructions found in "Tutorial 1" in the iModela Creator help file. Refer to the following procedure for information on starting iModela Creator and displaying the help file.

Procedure

1 Start iModela Creator.

On the taskbar, click [Start], [All Programs], [iModela Creator], and then [iModela Creator].



2 Click [Help] - [Contents].



WARNING

Do not leave the machine unattended during cutting.

Due to the cutting tool and workpiece surface heated to high temperature, the workpiece surface may be burned or burnt smell may be generated.

Making Other Items

For those who wish to explore iModela more, additional sample data is available for download.

Feel free to add to or modify this data and use it to make your own original items.

<http://icreate.rolanddg.com/>



- 3 Click [Tutorial 1].

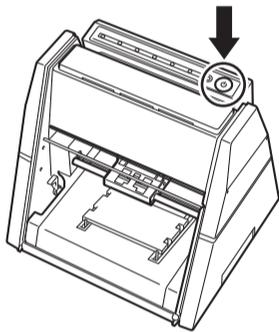


Refer to Tutorial 1 in the help file and cut the sample "clover" data. When cutting is finished, refer to Tutorial 2 and use iModela Creator to paint the clover.

Step 5: Shutting Down the Machine

Procedure

- 1 Click  in iModela Controller and iModela Creator. The programs close.
- 2 Press the power button. When the green lamp turns off, the machine has shut down.



- 3 Clean the machine. Refer to the information about maintenance found in the electronic manual "iModela (iM-01) Master Guide."