

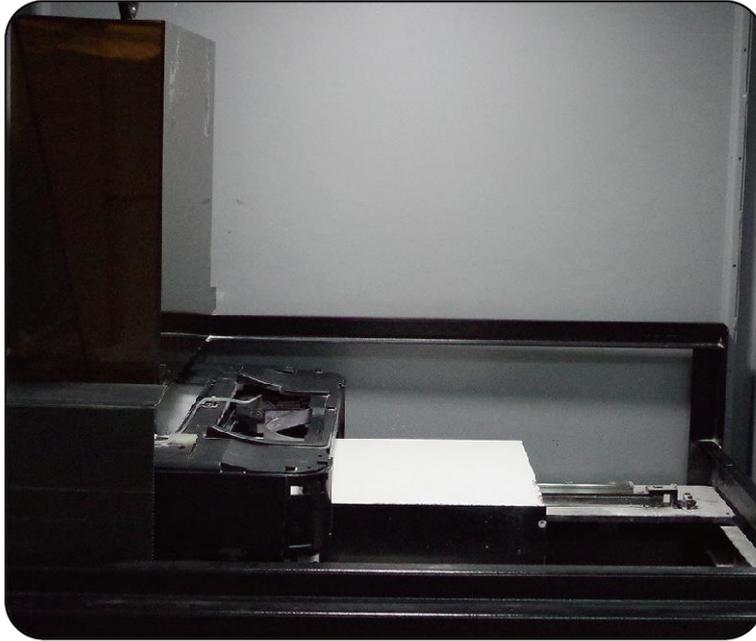


3D Pandoras Color Printer

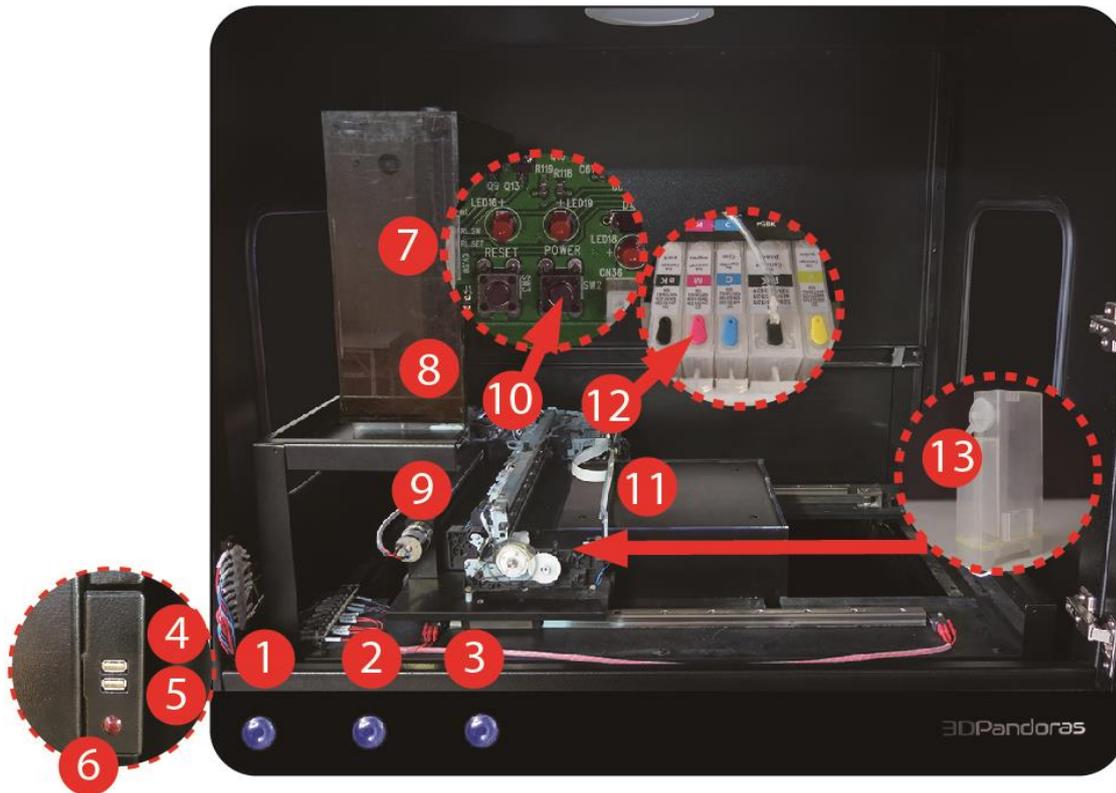
USER MANUAL



Before Opening The Cover



After Opening The Cover



Operating Systems :

Win7 SP1 64bit / Win8 64bit

RAM : 8GB

CPU : Intel quad-core , not support AMD

- | | |
|---|--|
| 1 AC Power switch | 7 Powder storing box (inside of box there powder roller is installed) |
| 2 Top LED light switch | 8 Powder feeder |
| 3 Down LED light switch | 9 Powder spreader |
| 4 USB port for platform control (for RS 232) | 10 Printer board power switch |
| 5 USB port for printer | 11 Build bed |
| 6 X axis end point error signal light | 12 Ink cartage |
| | 13 Binder tank |



- 14** Re-cycle powder sink
- 15** Waste ink collector
- 16** Re-cycle powder sink
- 17** AC Power cable

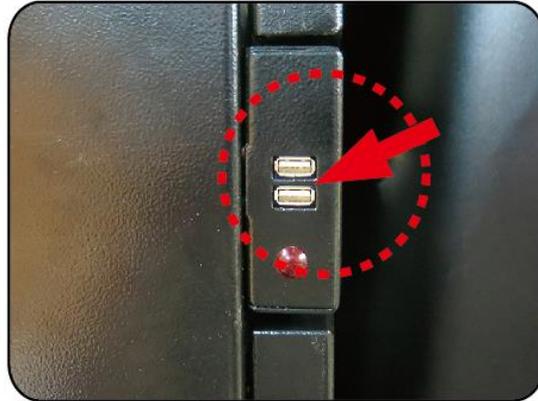
Operating Systems :

Win7 SP1 64bit / Win8 64bit

RAM : 8GB

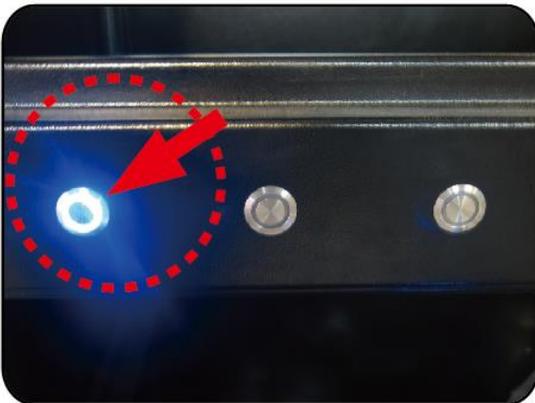
CPU : Intel quad-core , not support AMD

- 1 Above window OS 64 bit (WIN 7 and Win 8), 3GHz CPU, 8GHz RAM, NVIDIA 650 graphic card.

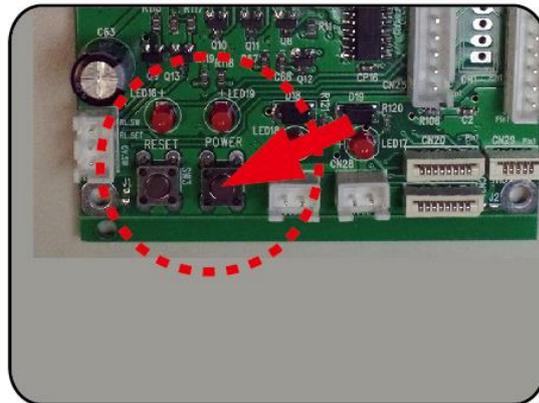


- 2 Plug 2 USB cables to 4 and 5.

- 3 Plug AC power cord of 17 to AC outlet.

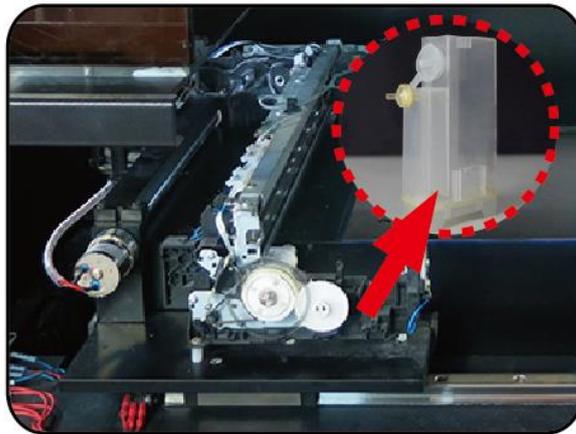


(Switch for main power, top LED light, bottom LED light)



(Printer board power switch)

- 4 Power ON switches of 1 (Main Switch) ,2 (Top LED Light) , 3 (Bottom LED Light) and 10 (red arrow pointer is for printer module switch, the blue light will be flash once press the key, that means there two switches, one for inkjet printer module another for main switch).



Place binder tank of 13 at right position as below illustration shown.

- 5** Any other position will cease printer operation due to pressure level between inkjet cartage and binder tank does not balance, lower the position will flows less binder and higher position will flows more binder to inkjet cartage and printer will ceases operation due to sensor detecting error signal on cartage.

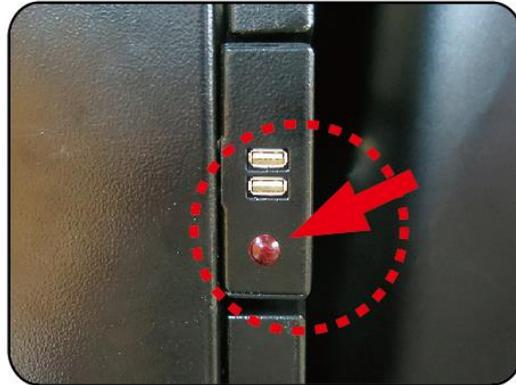
By new version of 3D Pandora's there siphon ink cartage module will be installed, which can support user of ink level visible and refill the ink and binder easily at the side of printer and binder tank will not be used anymore.

- 6** Open printer software of Sky3dprinter.
- 7** ***Import files of STL o VRML and slicing the file***
(more about software operation please check user manual)

- 8** *Setting the printer parameters*
(for Human Main Interface and initial set up please refer to software manual)
- 9** *Place printing command*
- 10** *When 3D object is done please keep it a while, so that to avoid any crash due to it is not dried.*
- 11** *Pick up the 3D object carefully with brush and small shovel*
- 12** *Power off printer board switch 10 and 1*
- 13** *Clean ink cartage and gearing system after use, otherwise without maintenance inkjet nozzle will be clogged due to nozzle ink was dried by long time not use.*

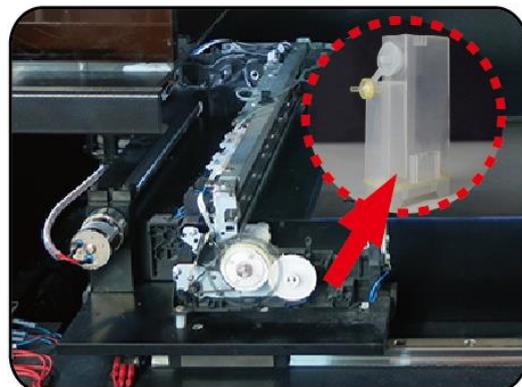
1. **Printer doesn't work**

Check power cable, 2 USB cables are plugged well, re-boot printer and re-open the software.



2. **Item of 6 (X axis end point error signal light) red light is on**

X axis platform has contacted end-stop sensor switch, please slightly remove printer platform to reverse direction manually, so that red light is off and switch off 10 and 1 for re-power on.



3. **Printer cease suddenly during operation.**

Check ink cartage, clean it and adjust binder tank at right position as below illustration shown.



7. **Replace ink cartage and print head**

After remove ink cartage please move print head holder as below illustration and replace the printer head.



8. **Printer pop-up window**

During printing, below window will pop-up please ignore it, printer will not performs any action and software will keep move forward.



1. Binder injector
2. CYMK ink injector
3. Brush
4. 300 mesh gypsum caked powder filter
5. Scraper knife

Curing agent, binder, gypsum powder, and CYMK ink



1. Curing agent is combined by A epoxy, B epoxy, and C solvent elements and there only A and B epoxy will be shipped but C of Butanone, because it is flammable not accepting by carrier of shipping company and requires order it at local. And, mixing ratio between A:B:C is 3:1:2.



2. Binder is packed with 1L (1kg)



3. Gypsum powder is packed with 1kg

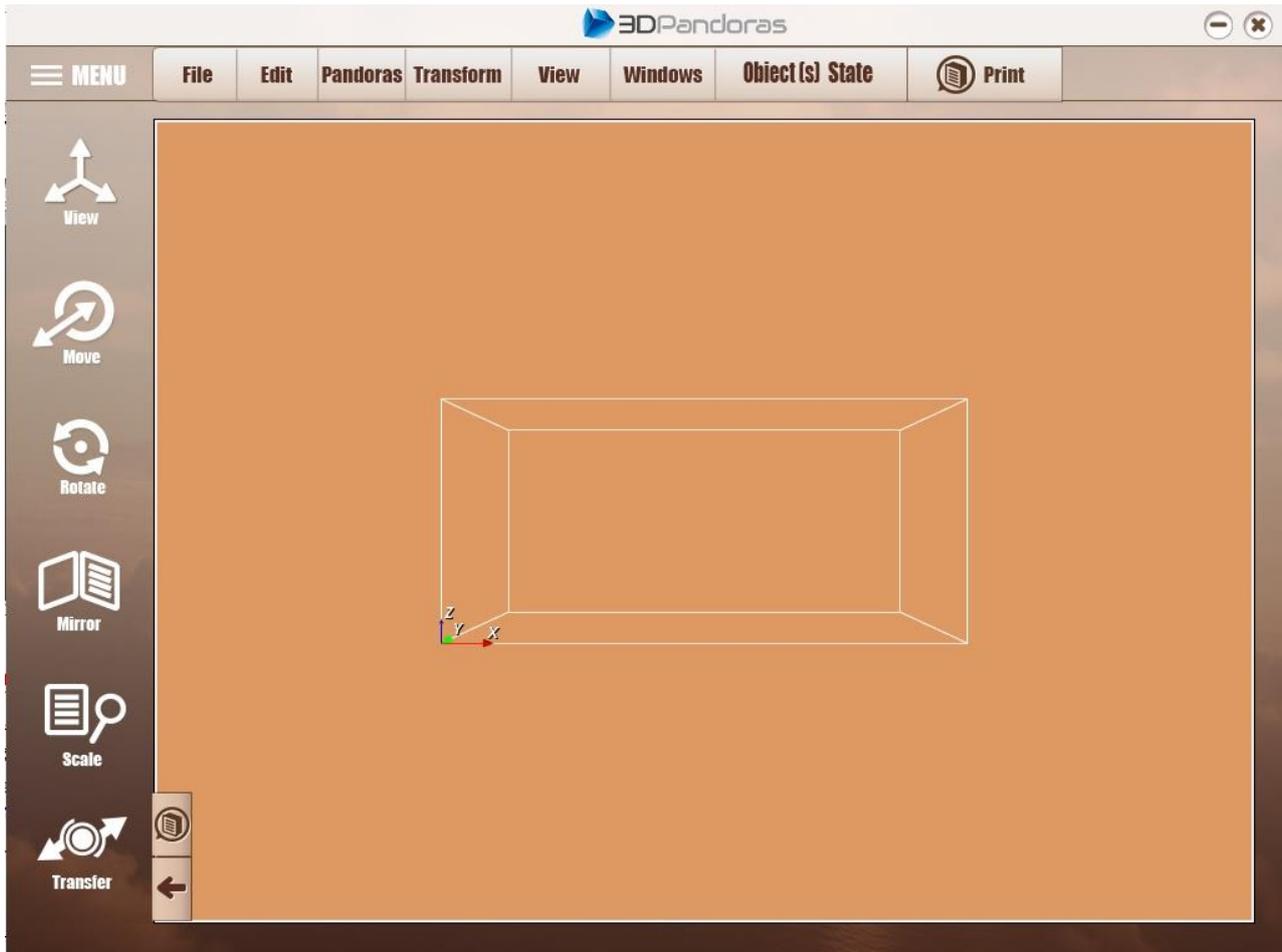


4. CYMK ink, 250cc for each color and 1kg for ordering unit

Daily Maintenance

It is required, particular for inkjet cartage, print head, and gearing system please use software to maintain it in daily basis, so that to prevent print head nozzle dried and keep it wet always.

3D Pandoras Color Printer User Manual

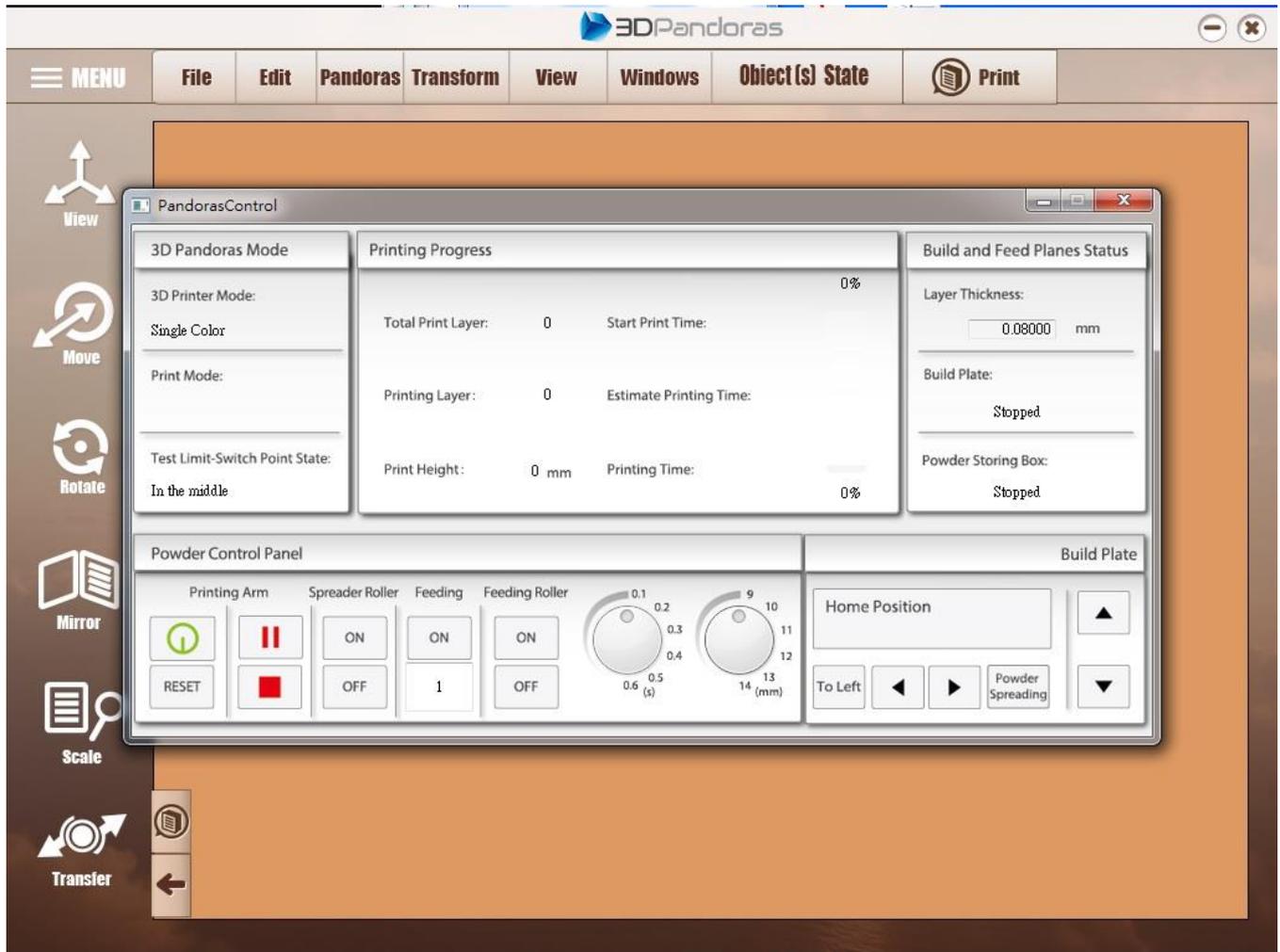


(Illustration 1) User Interface

A. Step of use

1. File→New→Import : Import .stl or .vrm1 2.0 file, then, select 3D object measuring unit Milimeters or Inches.
2. Placing 3D object, (in order to save printing time please place 3D object at Z orientation and min. heightness). Hold mouse left can moves 3D object.
3. By 3D window, hold the wheel to view the angle of 3D object.
4. Transform→ Align : Set object orientation, (by use buttons of Left, Front and Bottom)
Transform→ Scale : Scale up 3D object
5. File→Printer Setup : Configure printer as Canon iX6560 and select paper size as A3.
6. File→Print : Print 3D object → Setting printing quality for high.
- 8 File→Print→Select Printer Type→Maintenance : Can view printer current status and may check printer nozzle whether it is in good condition.
9. File→Print→Select Printer Type→Maintenance→Clean : Clean printing nozzle by each color, before printing this step must be done.

B. HMI (Human Machine Interface) step of use



(Illustration 2) HMI Interface

1. Pandoras : Pop up for HMI interface
2. Each button introducing on HMI interface



Printer power ON/OFF : Power ON/OFF button.



Reset button : Reset for printing nozzle and cartage, the inkject printing module become normal state.



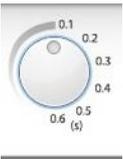
Powder spreading roller ON/OFF : It is for spreading roller test.



Powder feeding ON/times : On/times switch for powder feeder.



Powder feeding Roller ON/OFF : Switch for powder feeder.



Powder feeder lead time: Select parameters from 0.1s ~ 0.6s
(Higher parameter for more powder feeding)



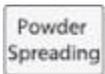
Powder feeder distance: Select parameters from 9mm ~ 14mm
(Higher parameter for more powder feeding)



Left home position : Move printer platform to left home position.



Move to left : Move printer platform from right to left direction.



Powder spreading : Before powder spreading please define base height ness, it usually requires few mm and after first powder spreading the Z axis platform moved down to pre defined layer thickness.



: For Z axis UP, Z axis movement will be stopped when loose the button.



: For Z axis DOWN, Z axis movement will be stopped when loose the button.



: For X axis moves to RIGHT, X axis movement will be stoppted when loose the button.



: For X axis moves to LEFT, X axis movement will be stoppted when loose the button.



Printing layer thickness: 0.08mm is min. thickness please defines parameter above

than 0.08mm.



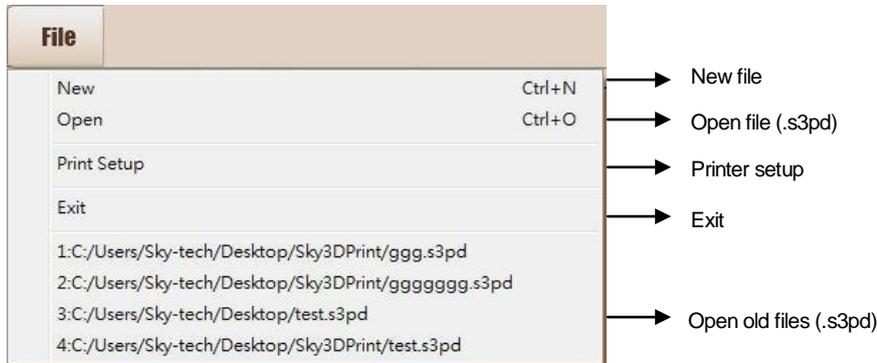
: Phase



: Stop

File Menu

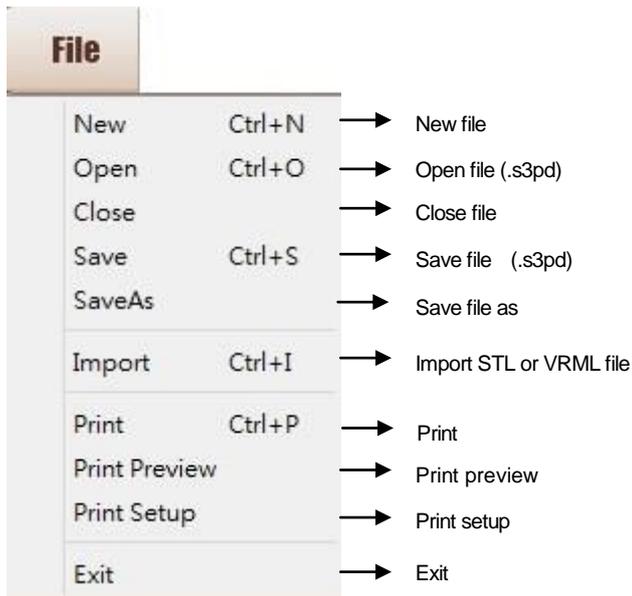
File menu contains below items:



(Illustration 3) File

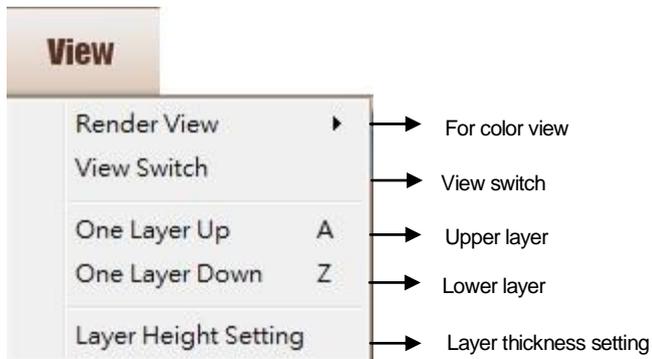
File item options

File menu contains below items :



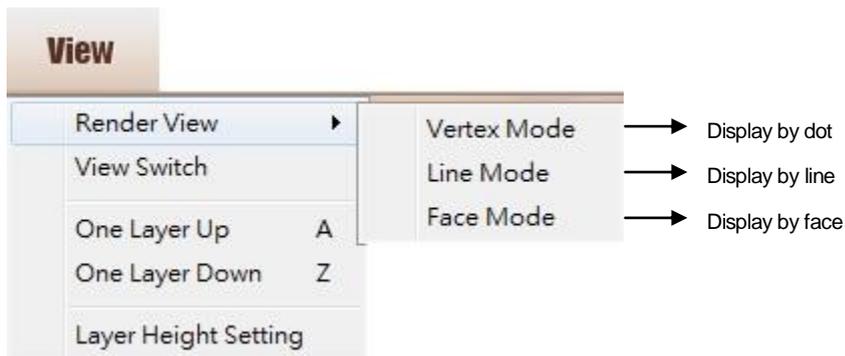
(Illustration 4) File items

View contains below items:



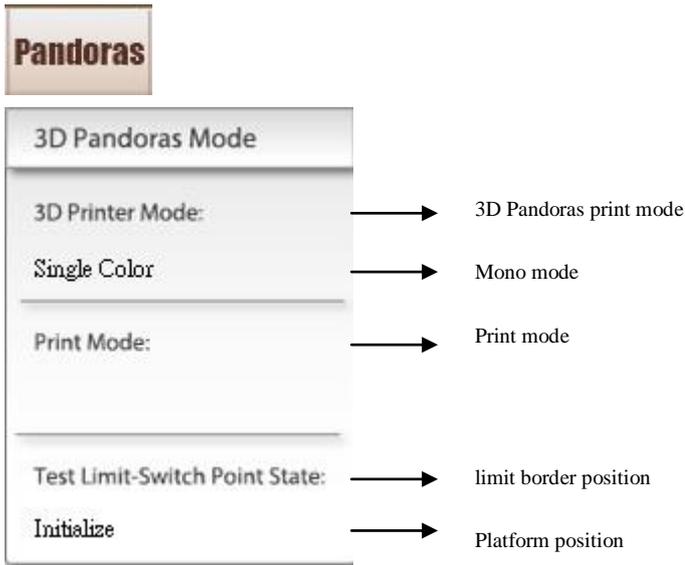
(Illustration 5) View

Render View (color display) will pop up below items :



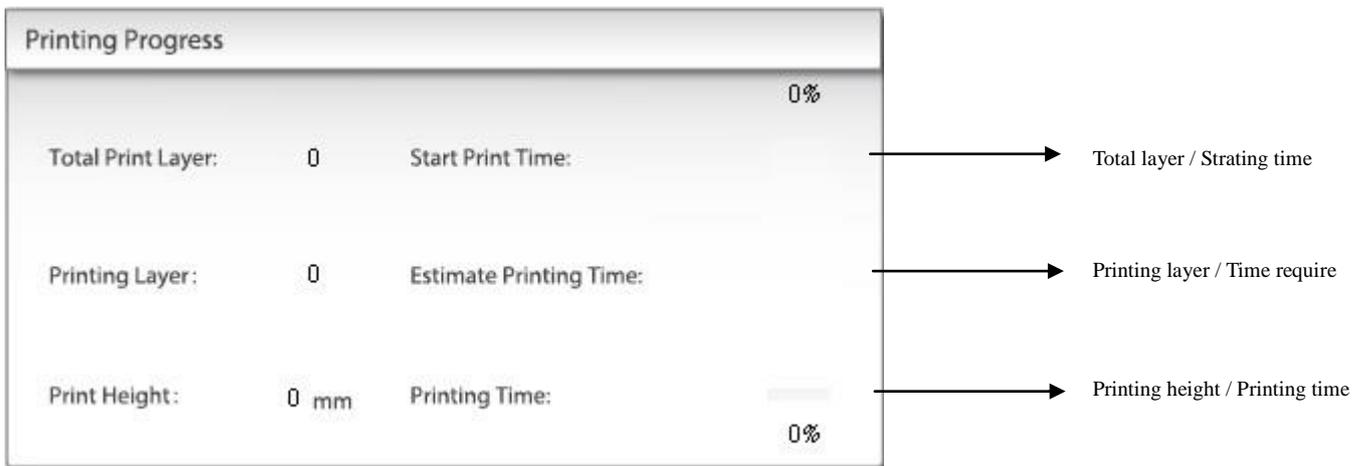
(Illustration 6) View

Pandoras pop up window:



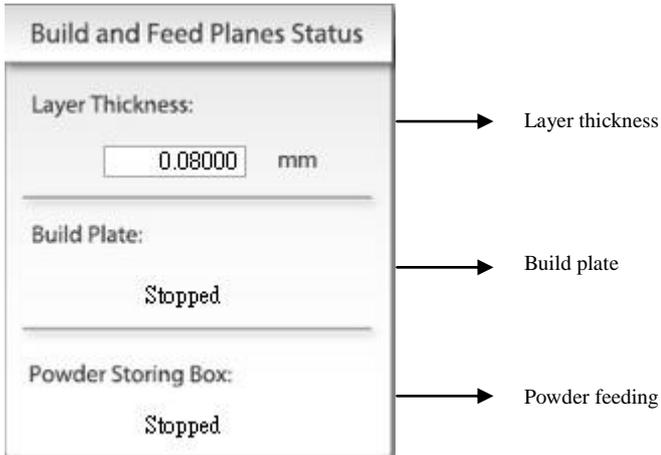
(Illustration 7) 3D Pandoras Control Interface

Printing progress interface



(Illustration 8) Printing progress interface

Build and feed plate status



(Illustration 9) Powder feeding status

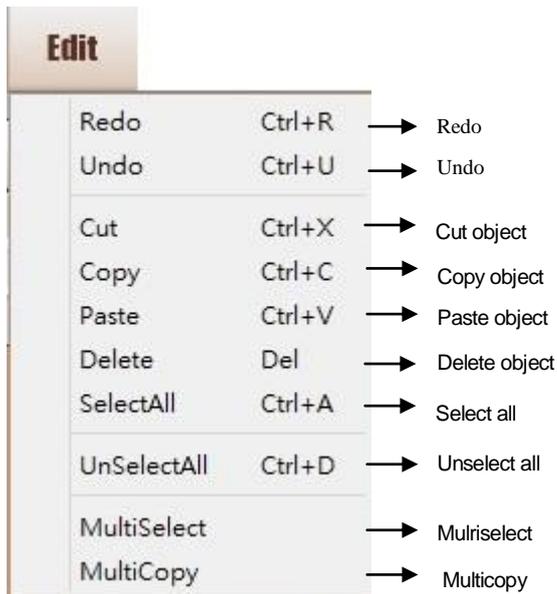
Powder feeding control interface



(Illustration 10) Powder feeding control interface

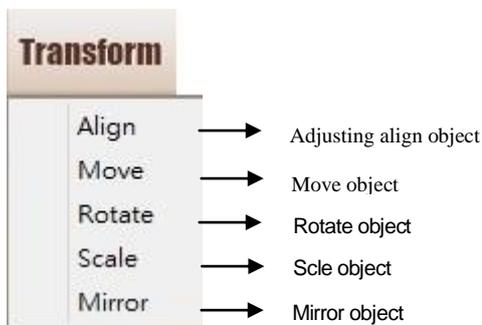


(Illustration 11) Powder build plate



(Illustration 12) Edit

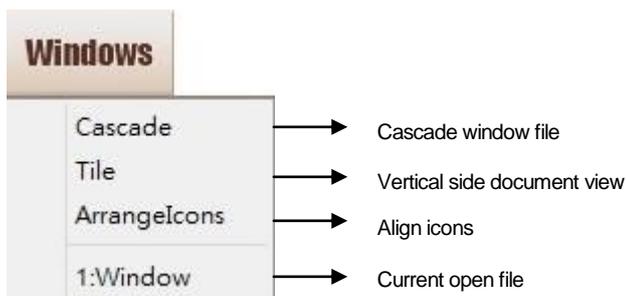
Transform menu contains below items



(Illustration 13)

Transform

Windows menu contains below items



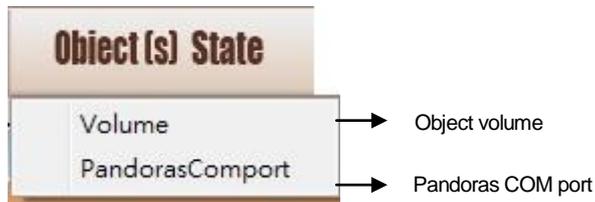
(Illustration 14)

Windows

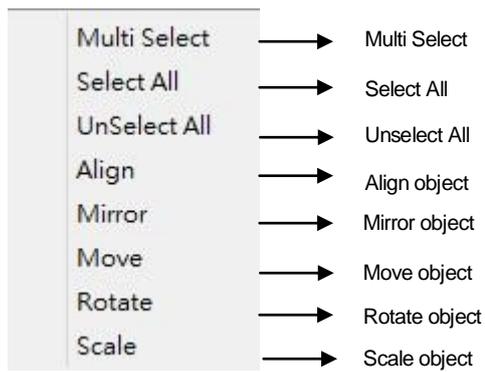
Object(s) State contains below items :

(Illustration 15) Object(s)

State



Right-click menu contains the following options; below items show up only 3D object was imported.



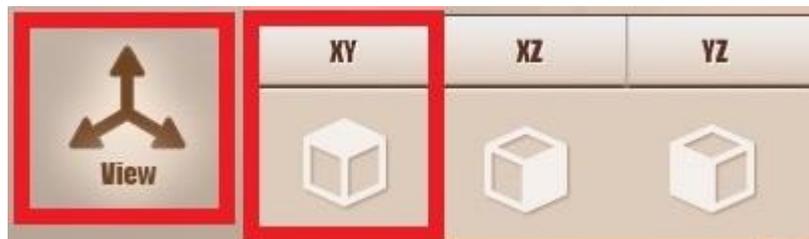
(Illustration 16) Right-click mouse button

Menu for View



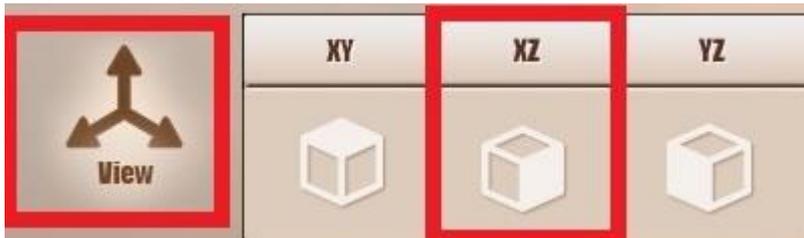
(Illustration 17) Menu for View

XY Axis



(Illustration 18) XY Axis

XZ Axis



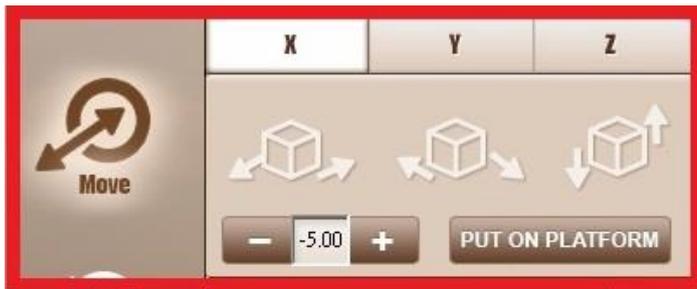
(Illustration 19) XZ Axis

YZ Axis



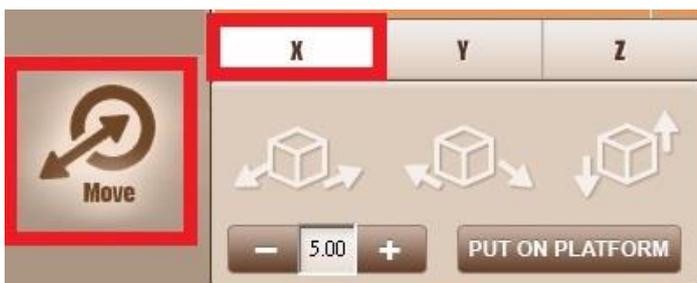
(Illustration 20) YZ Axis

Menu for Move



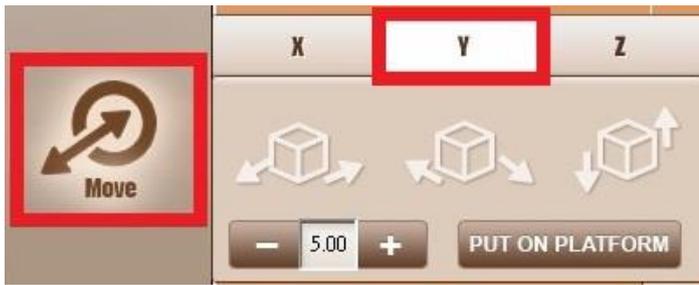
(Illustration 21) Menu for Move

X Axis Move



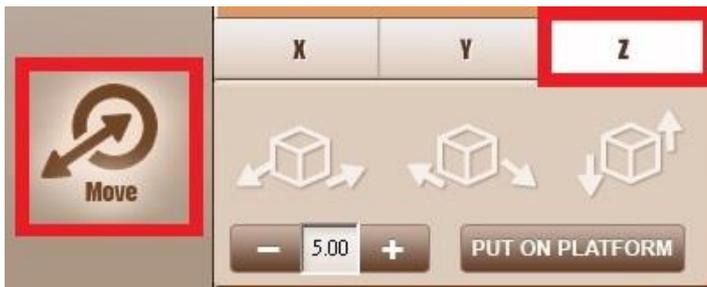
(Illustration 22) X Axis Move

Y Axis Move



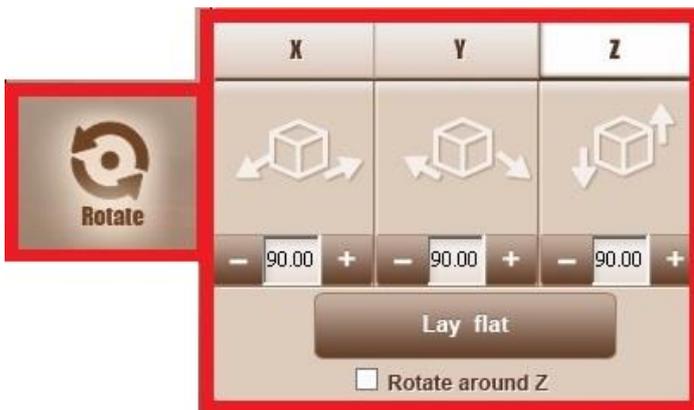
(Illustration 23) Y Axis Move

Z Axis Move



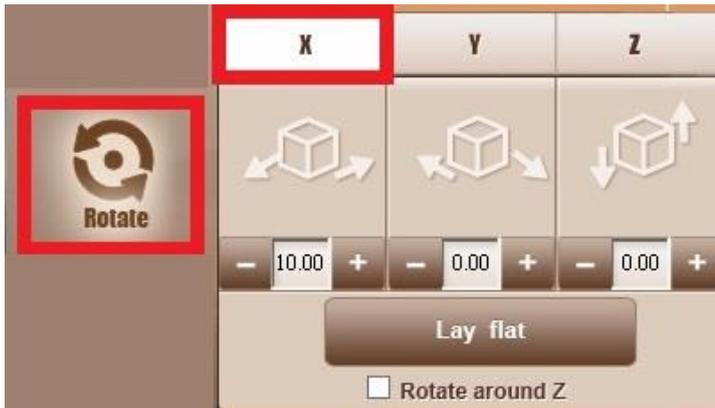
(Illustration 24) Z Axis Move

Menu for Rotate



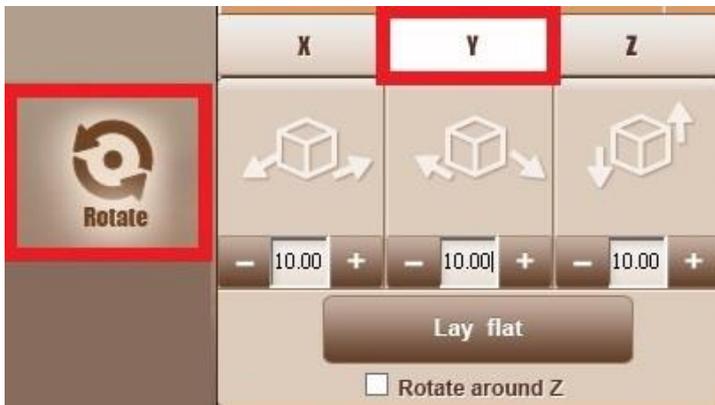
(Illustration 25) Menu for Rotate

X Axis Rotate



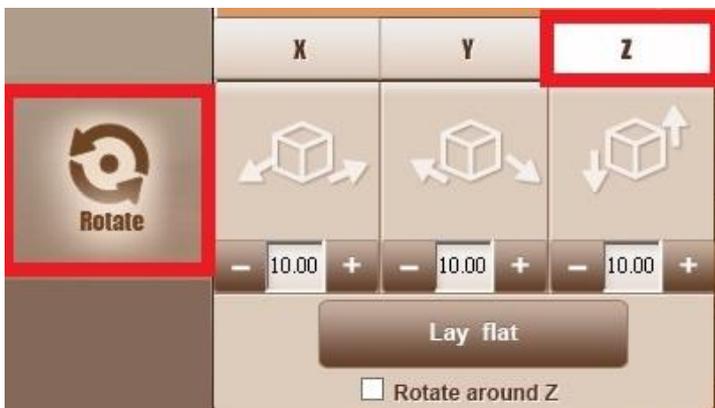
(Illustration 26) X Axis Rotate

Y Axis Rotate

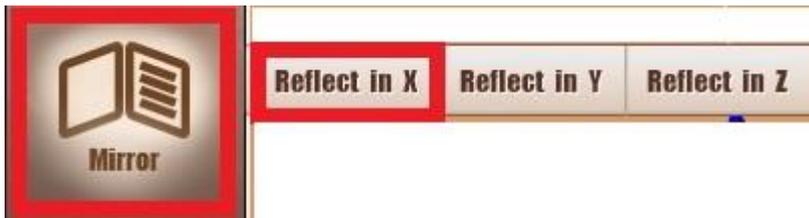


(Illustration 27) Y Axis Rotate

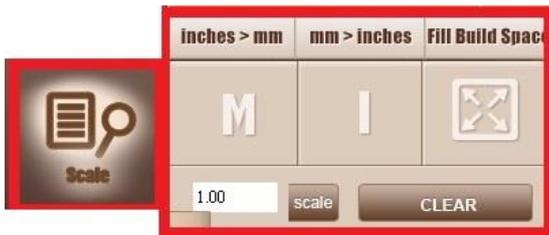
Z Axis Rotate



(Illustration 28) Z Axis Rotate

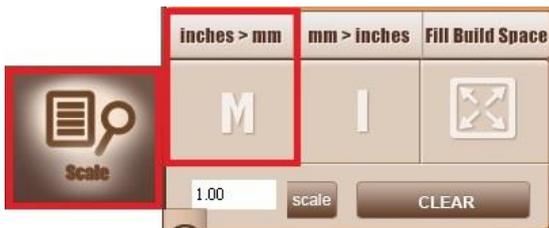
Menu for Mirror**(Illustration 29) Menu for Mirror****X Axis Mirror****(Illustration 30) X Axis Mirror****Y Axis Mirror****(Illustration 31) Y Axis Mirror****Z Axis Mirror****(Illustration 33) Z Axis Mirror**

Menu for Scale



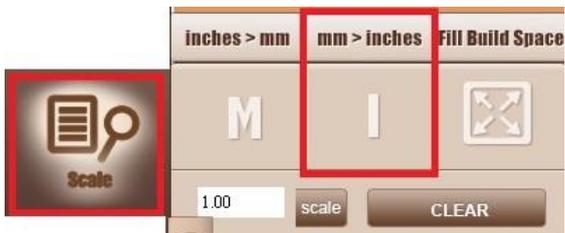
(Illustration 33) Menu for Scale

Inch→mm



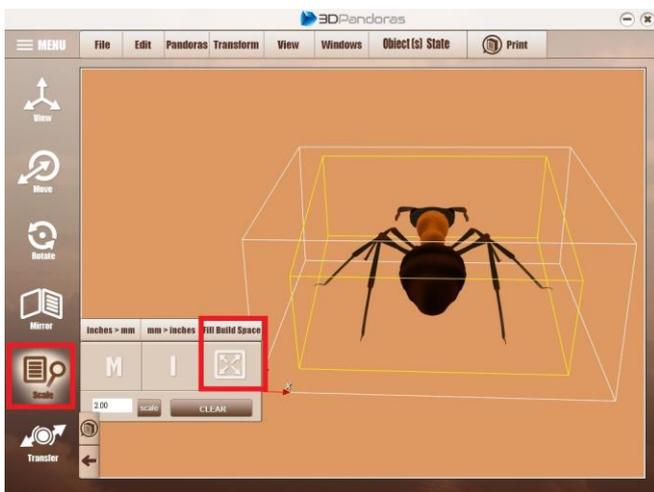
(Illustration 34) Inch →mm

mm→inch



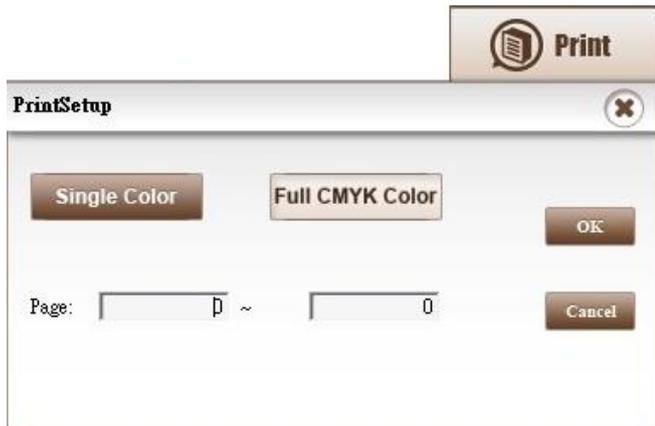
(Illustration 35) mm→inch

3D Object Scale Up



(Illustration 36) 3D Object Scale Up

Print



(Illustration 37) Print

Select Printer



(Illustration 38) Select Printer

C. Procedure of re-fill the binder bag

*Must keep binder bag without bubble and place binder bag position as below.

Before printing, make sure there is 90% ink on each ink cartage.

1. Before re-fill binder please close outfall of binder bag, use syringes inject the binder to the bag.
2. Always keep 80% binder inside of the bag.
3. Plug back for injection pipe
4. Open the outfall of pipe, place the feeding pipe in original shape so that binder flowing smoothly.
5. Clean dropping binder

D. Procedure of operating

1. Connect AC power cable
2. Connect two USB cables
3. Product power switch on

E. Procedure of shutdown

1. Make sure power of printer is off
2. Close 3D Pandoras software
3. AC power off

F. Procedure of cleaning nozzle

1. Move printer platform to the right edge
2. By software select **File ->Print Setup** and printer setup window will be pop up
3. Select Canon iX6560, select paper size as A3, select paper source as rear tray and printing orientation setting as horizontal.
4. When select Canon iX6560 printer please select printing quality in high and keeps other parameter as default.
5. By Cannon iX6560 window select maintenance -> clean -> black and click OK, and then printer will comply the command of cleaning.
6. After ink nozzle cleaning please click OK for close.

G. Procedure of multi-page printing

1. Complete operating procedures
2. Open HMI software
3. Spreading the powder
4. Complete ink nozzle cleaning process
5. Press left button move platform to stop-end sensor, keep 2cm~3cm distance before reach home position, and press home button move to home position
6. If error occurs, please do not perform any action, software will continue to operating
7. Printer will print multi-page automatically

H. Procedure of replace powder

* please wear the mask before replace powder

1. Use small shovel removes majority powder
2. For the residual powder, use HMI powder feeding ON for 100 times and brush for clean all powder.
3. Remove right side recycle bag powder
4. Remove right side recycle bag powder
5. Pour new powder into powder tank for complete process

I. 3D Pandoras error code and error message

Error code	Error status	Error code	Error status
5100	Platform stuck	5B00	Waste ink full
5110	Platform moving error	5C00	Waste ink component failure
5200	Printer head is overheated	6A00	Paper displacement detecting component error
5400	Data transfer logic error	6B00	Paper feed detecting component error
5700	Paper feeding unit error	6D00	Motor error
6000	Paper feeder unit error		
6500	Other hardware failure		
9000	USB data entry electric current overload		

(Troubleshooting)

Error Status	Error code	Signal light	Shooting trouble	Adjusting
No paper (ASF) / NoCD-R/ No paper in tray	1000/1001/1 003/1002	Orange light flash 2 times	Place paper on ASF/CD-Ron tray/put paper to paper tray , press Resume button	
Paper stuck	1300/1303/1 304/1250	Orange light flash 3times	Take out paper and press Resume button	
Out of ink/No ink cartage install	1600/1660	Orange light flash 4times	Re-fill the ink / install the ink cartage and press RESUME button	
Print head is not installed / Print Head improper installation / print head temperature sensor fault	1401/1403/1 405/1682	Orange light flash 5 times	Install the print head or reinstall the print head and re-boot printer	
Inside the doors opened (or during printing) / CD-R disc holder closed (when printed CD-R)	1851/1856/1 850/1855	Orange light flash 6 times	Close inside door / open CD-R disc holder, press the RESUME button	
Ink cartridge installation errors	1681/1680	Orange light flash 7 times	CD-R or DVD-R discs mounted on shelves, into the print path, and press RESUME button	
Waste ink near full warning error	1700/1701	Orange light flash 8 times	Press RESUME button and replace the ink absorbing sponge	Clean waste ink
Digital camera or camcorder does not support for printing	2001	Orange light flash 9 times	Plus off cable and press RESUME button	
Not automatic duplexing (printing paper size is not supported)	1310 error , re-print	Orange light flash 10 times	Press RESUME button	
Automatic calibration print head failure / front door opening	2500	Orange light flash 11 times	Press RESUME button	
Remaining ink level is not recognized	1683	Orange light flash 13 times		

Ink cartridge is not recognized	1684	Orange light flash 14 times		
Ink cartridge chip error	1410-1419	Orange light flash 15 times		
Out of ink	1688	Orange light flash 16 times		
Do not support PictBridge	2002	Orange light flash 19 times	Delete USB hub , support PictBridge (USB port)	

(Below trouble shooting is not for user, only for manufacturer)

Ink cartage carrier error	5100	Orange light flash 2 times	Replace the encoder or the motor car or motherboard	
Paper feed wrong	6000	Orange light flash 3 times	Replace the encoder or the pickup roller or motherboard or feed motor	
Cleaning unit (cam) sensor fault	5C00	Orange light flash 4 times	Replace the cleaning unit or main board	
ASF (Cam) sensor fault	5700	Orange light flash 5 times	Paper feeder assembly	Adjust paper feeder assembly
Printer temperature is high	5400	Orange light flash 6 times	Replace main board	
Waste ink full error	5B00 (other area) /5B01(Japan)	Orange light flash 7 times	Replace the ink absorbing sponge or main board	Clean waste ink
Print head temperature is too high error	5200	Orange light flash 8 times	Replace main board or print head	
EEPROM error	6800/6801	Orange light/Green light flash 9 times	Replace main board	
VH control error	B200	Orange light/Green light flash 10 times	Print head VH control error	

Mechanical parts error	5110	Orange light/Green light flash 115 times	Replace the small frame or axle or photo insert feeder assembly or main board	
APerror	6A80	Orange light/Green light flash 12 times	Replace main board	
APPsensor error	6A90	Orange light/Green light flash 14 times	Replace main board	
Feed-situ error	6B00	Orange light/Green light flash 13 times	Replace main board	
Paper feed cam sensor fault	6B10	Orange light/Green light flash 14 times	Replace main board	
USBport error	9000	Orange light/Green light flash 15 times	Replace main board	
Clean the gear sensor error	5C20	Orange light/Green light flash 16 times	Replace main board/ cleaning unit	
Feeder encoder error	6010	Orange light/Green light flash 17 times	Replacing the feed encoder / motherboard / feed motor / discharge paper components	
Ink cartage detects error	6502	Orange light/Green light flash 19 times	Replace the paper ejection component / main board	
Other hardware error	6500	Orange light/Green light flash 20 times	Replace main board	
ROM error		Yellow light flashing constantly	Replace main board	
RAM error		Yellow light flashing constantly	Replace main board	
Drive conversion error	C000	Orange	Drive switch is not set	

		light/Green light flash 21 times	correctly. Material or document fragments drive the transition area / replacement parts	
Cam sensor error	6C10	Orange light/Green light flash 23 times alternately	Cam sensor, in the boot or intend to cleaning	

J. Maintenance mode

1. Press RESUME button and press power button for power on.
2. Press power button and release RESUME button and press twice RESUME button
3. Release POWER button and RESUME button at the same time, entering the maintenance mode.
4. Once power light change to green use software for operation