

Maintenance Manual

Profession Series / Advance Series

Version 1.0

MiiCraft Profession & Advance series printer are well designed by the finest design & optical engineers to provide additive manufacturing process more compatibility, with low maintenance on the machine. Maintenance work should be regular in order to keep the printer in good condition and achieve high quality prints every time. Some parts require maintenance before each print and some every few hundred working hours. All maintenance activities do not take much time and are not complicated. Before commencing any repair, it is extremely important to turn off the printer. Remember to always wear safety gloves and glasses while working with printer.

MiiCraft Advance Series / Profession Series



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Common & frequently performed practices

The following tables present maintenance and repair guidelines connected with each section of the MiiCraft Profession & Advance series printers, together with specific check points, necessary activities and their frequency.

Sr. No.	Activity	Frequency
1	Cleaning the machine & interior Surroundings	Before Every Print
2	Cleaning Picker Surface	Before Every Print
3	Cleaning teflon glass	After change of teflon or print failure
4	Change of Teflon	After 20 prints
5	Resin Mixing	Before Every Print
6	Checking for printing residuals in the resin tank	After Printing / Must check if print failure occurs
7	Cleaning Recoater Stirrer	After Change of resin in tank / After print failure / Before starting Printing if standby 12Hours or More
8	Cleaning Tank	After Print Failure
9	Restart / Shut Down	Shut Down the printer if there's no use
10	Checking Tension in recoater belt	After 2 Years
11	Tightening Picker Locking Screws	Before Every Print
12	Tightening Tank Locking Screws	Before Every Print

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Main Components to be checked frequently

- Glass
- Teflon
- Picker
- Recoater

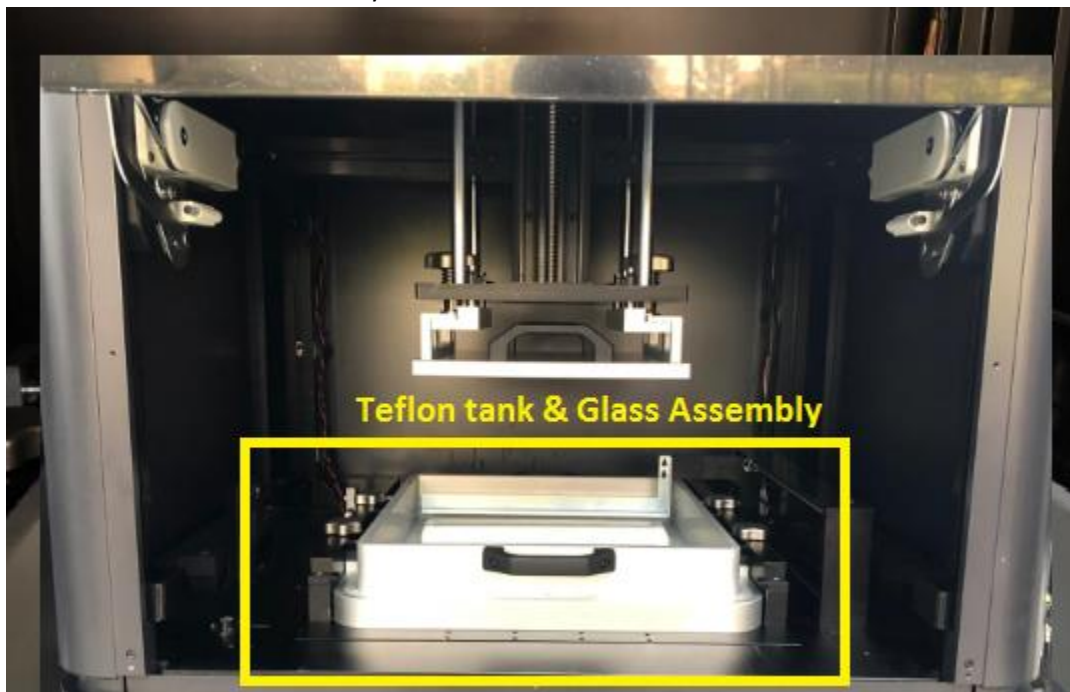
Glass :-

Required tools :-

- 1) Hand Gloves
- 2) Hex Allen Key – 3mm
- 3) Cotton Cloth
- 4) Alcohol / Acetone

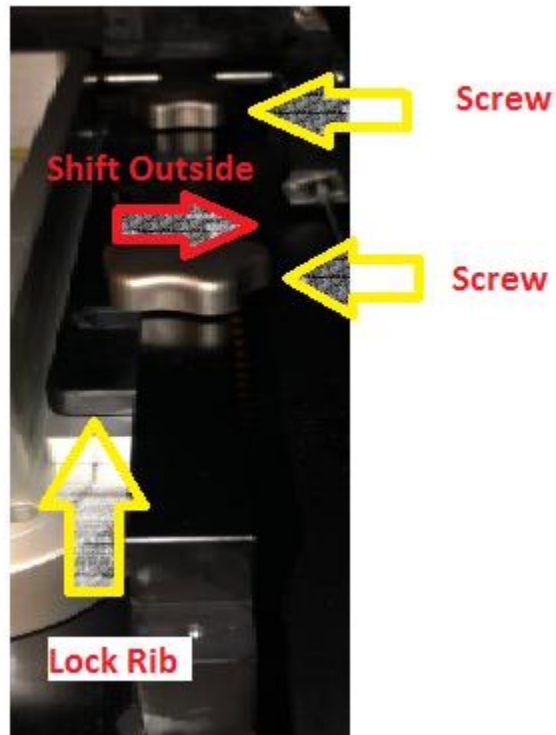
Procedure :-

- Glass is located in between tilt tray & teflon module.



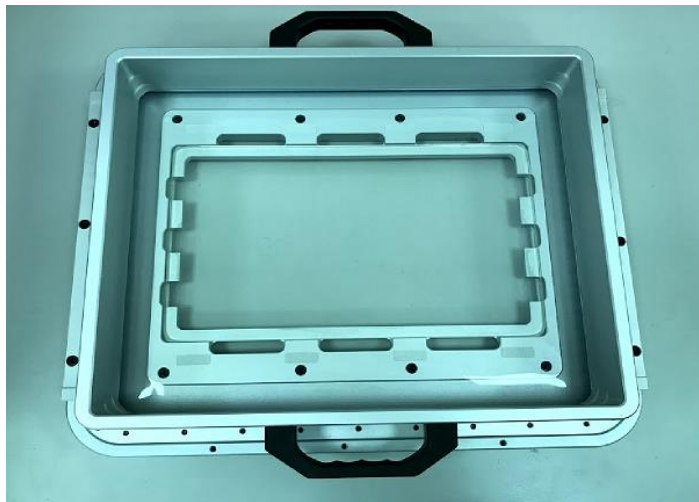
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- Remove the module by unscrewing tank holders 4 screw & shifting ribs on the outside.



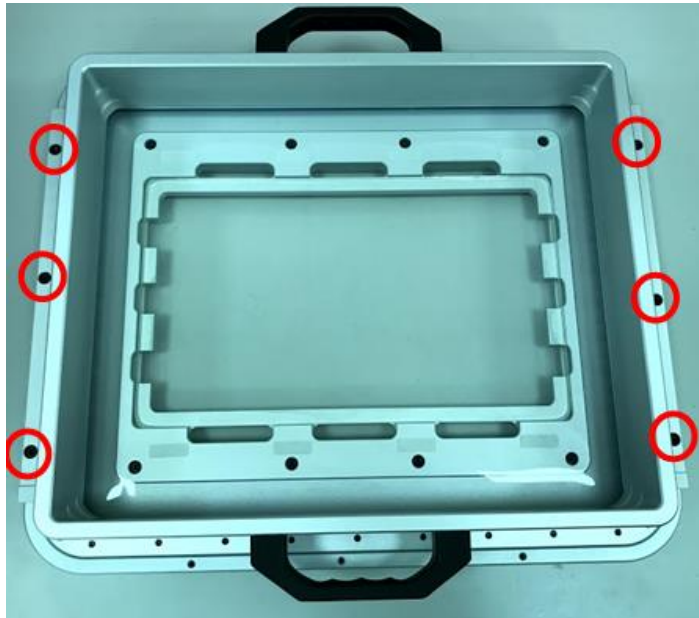
(Image contains one side only)

- Pull out the tank outside by holding tank handle & place it on safe cart to start further procedure.



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- Remove the 6 locking bolts using hex allen key as shown in the image.



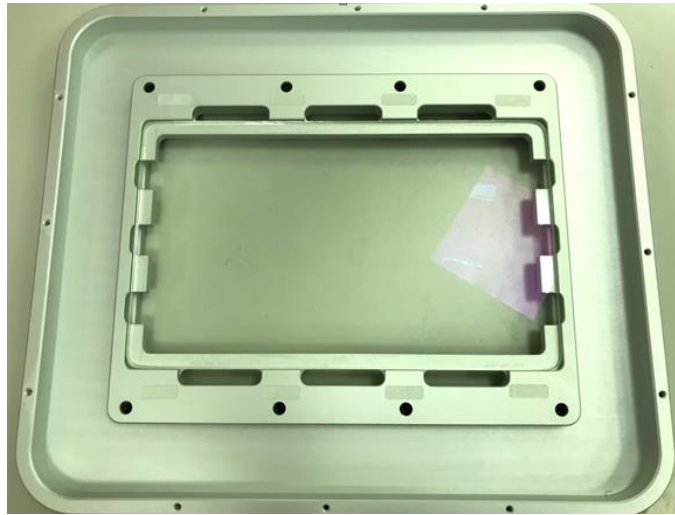
- Lift up the teflon module to check if glass have some residuals or dirt on it. Take out the glass & teflon tank assembly. (Refer following image)



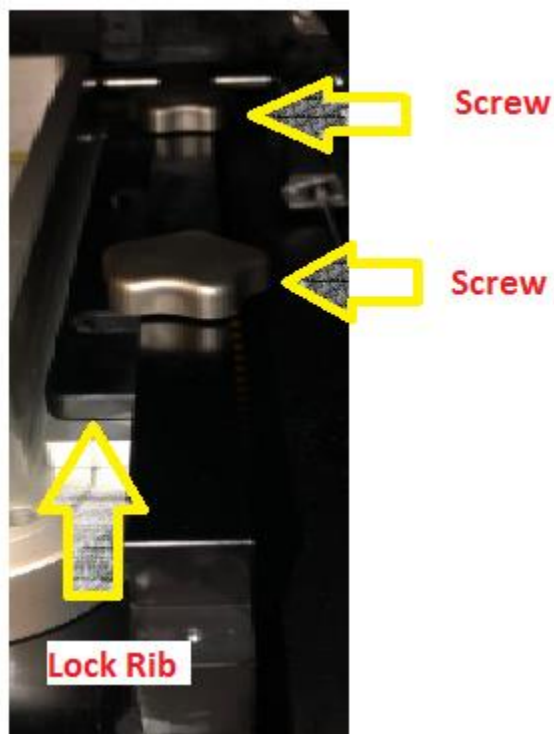
- If glass contains any kind of dirt on it, clean it with alcohol or acetone using cotton or tissue. Cleaning procedure should be done soft & slowly on both sides to avoid damage to the glass.

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- The cleaned glass will be transparent as shown in the image.



- Check if teflon is leaking resin from its surface, if yes, there's need to change teflon.
- Reassemble the teflon module on the glass using hex allen key by tightening 6 screws & insert the assembled glass & tank module on the tilt tray mechanism.
- Lock the top 4 screws after shifting both side ribs inside to secure the fixed position of tank module on the tank holder.



(Image contains one side only)

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Teflon :-

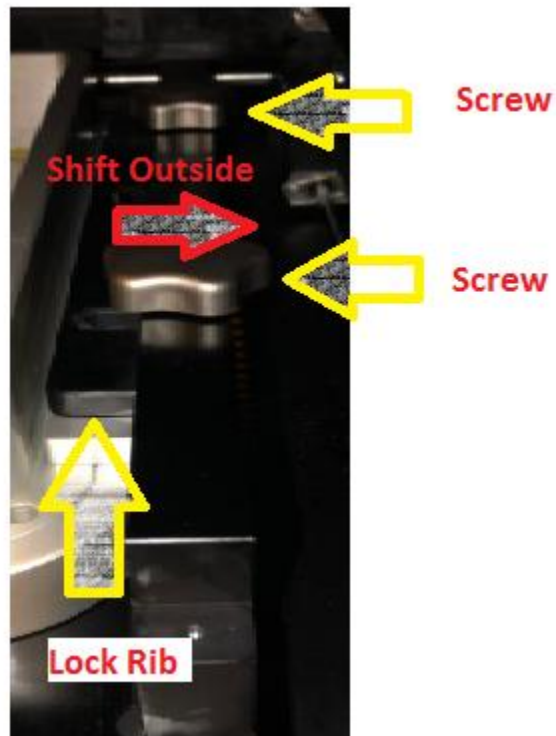
MiiCraft suggest end users to change teflon after 20 prints for avoiding print failure & wastage of time in case of teflon failure.

Require tools :-

- 1) Hand Gloves
- 2) Power screw driver
- 3) Allen Key Hex - 3mm
- 4) Teflon Module

Procedure :-

- Remove the 4 locking screws & shift the rib in unlocking position.



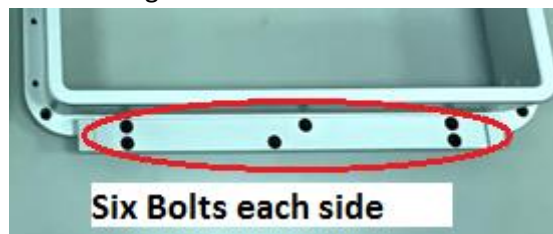
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- Take out the glass & teflon tank assembly



- Clean the tank module by removing excess amount of resin in the resin container.
- Remove 12 bolts (6 bolts on each rib) using hex Allen key or power screw driver. Lift up the teflon module to check if glass have some residuals or dirt on it.

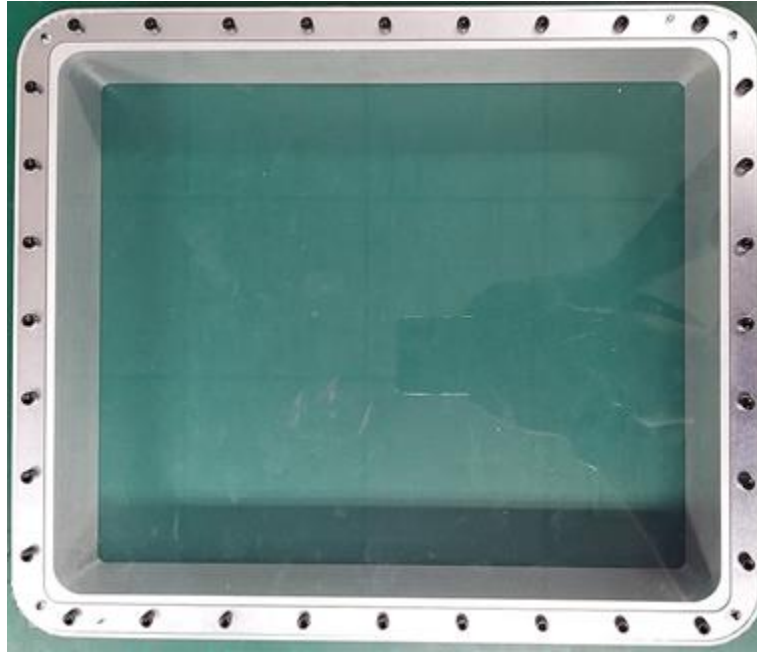


(Image contains one side only)

- Clean it if there's any dirt by using cotton cloth & alcohol.

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- Place the tank upside down for removing the 32 screws using power screw driver.

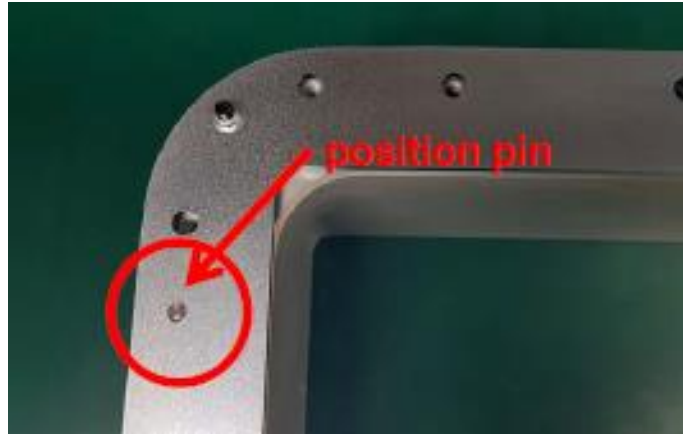


- Using hex allen key or power screw driver, remove all of the screws from the tank module.
- Take new teflon module.

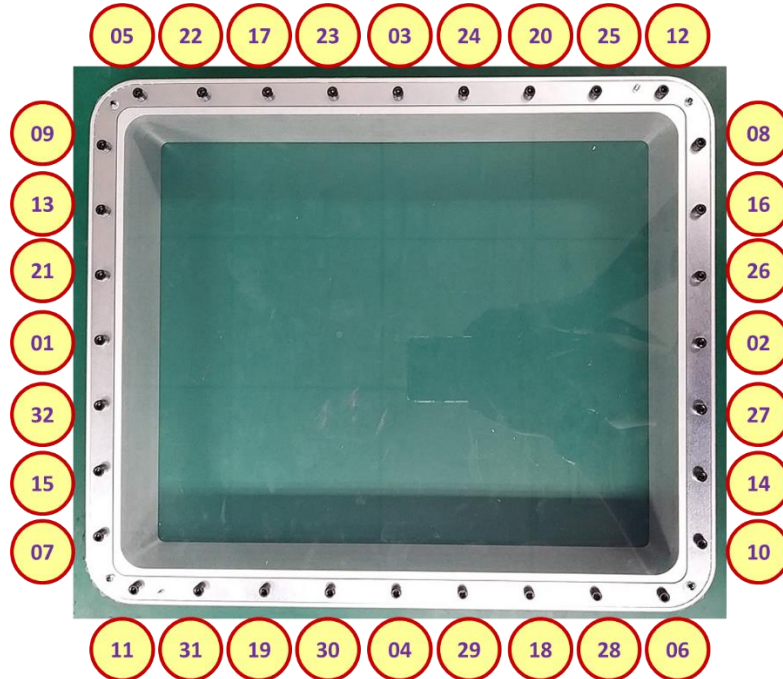


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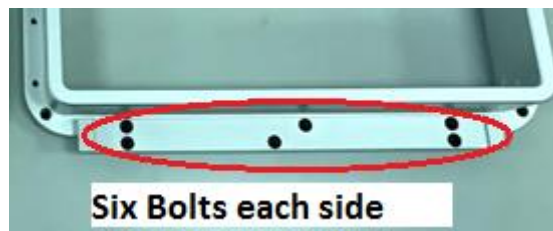
- Put the teflon film module on the tank surface & fit with pin position.



- Assemble the bolts in order from 1 to 32 as shown in following image.

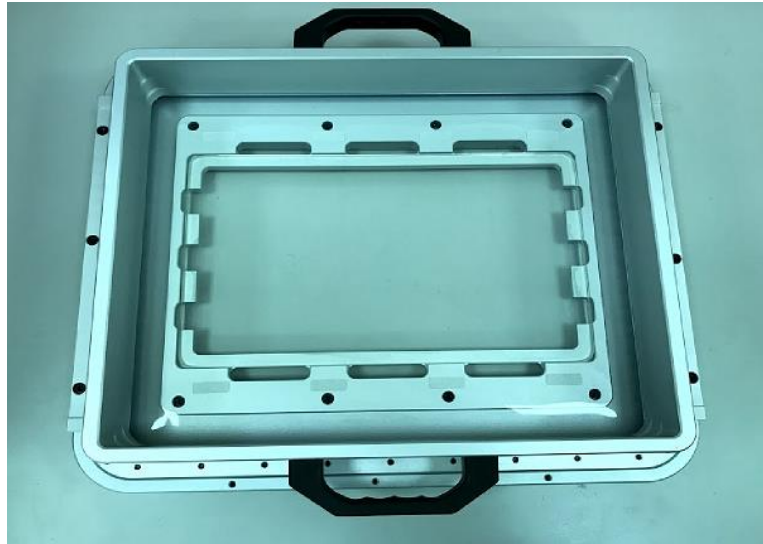


- After fastening 32 bolts, assemble the removed ribs which holds tank & glass module using rest of 12 bolts & power screw driver.

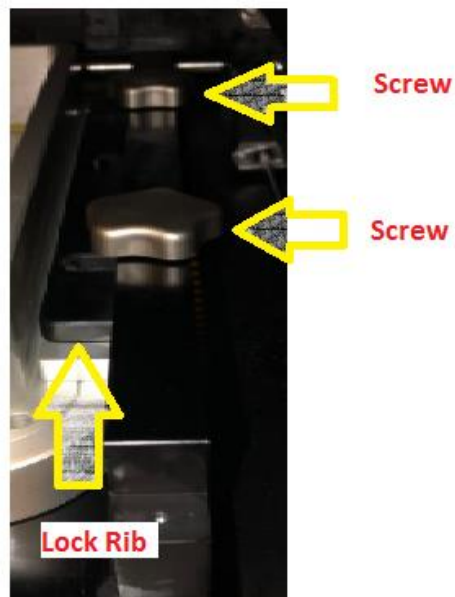


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- Place the assembled glass & tank module on the tank holder.



- Simply shift tank holder's 2 ribs at inner side & lock the 4 screws.



(Image contains one side only)

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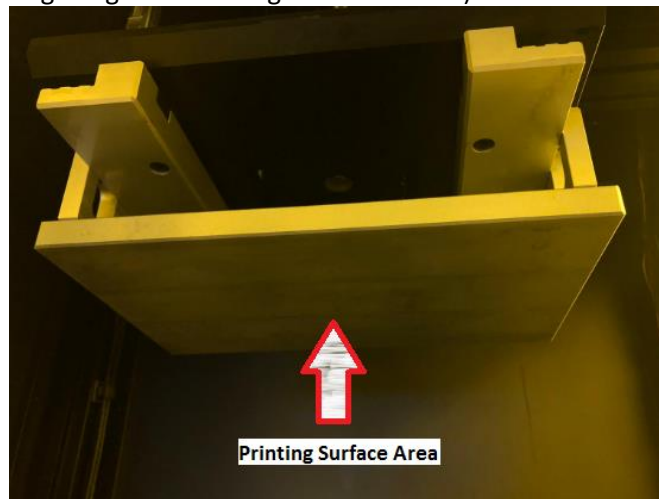
Picker :-

Required Tools :-

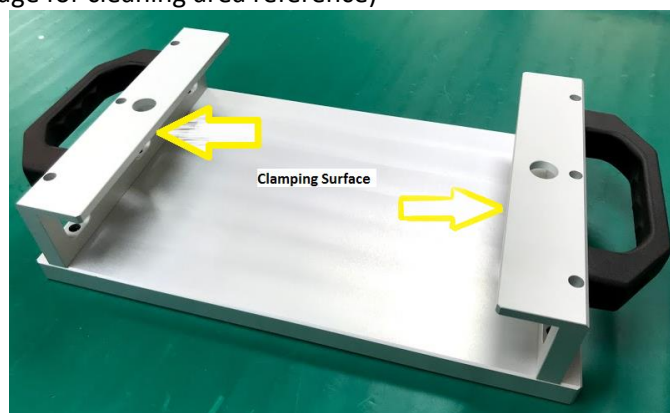
- 1) Hand Gloves
- 2) Cotton Cloth
- 3) Alcohol / Acetone

Reference :-

- Keep the printing surface as clean as possible for each printing process by using cotton cloth & alcohol. (Refer following image for cleaning area reference)



- Keep inner clamping surface clean for each printing process by using cotton cloth & alcohol. (Refer following image for cleaning area reference)



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Recoater :-

Required Tools :-

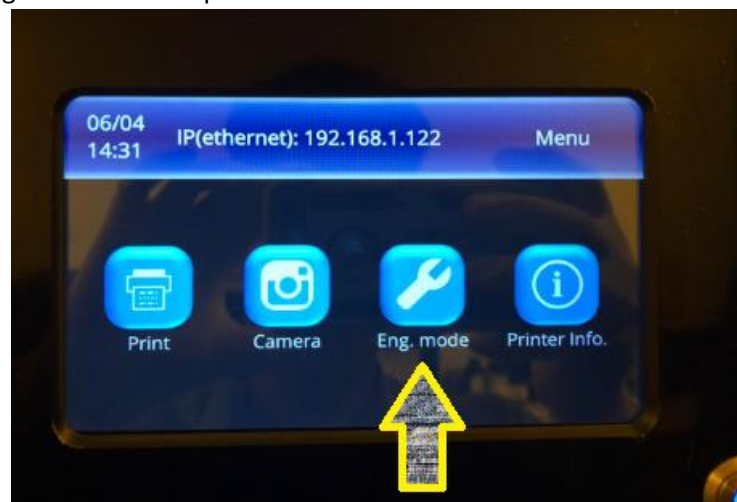
- 1) Hand Gloves
- 2) Cotton Cloth
- 3) Alcohol / Acetone
- 4) Hex Allen Key – 3mm

Procedure :-

- The right side mounting after opening door is recoater assembly.



- Open Engineering Mode in touch panel window



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- Select Motor Control in next window

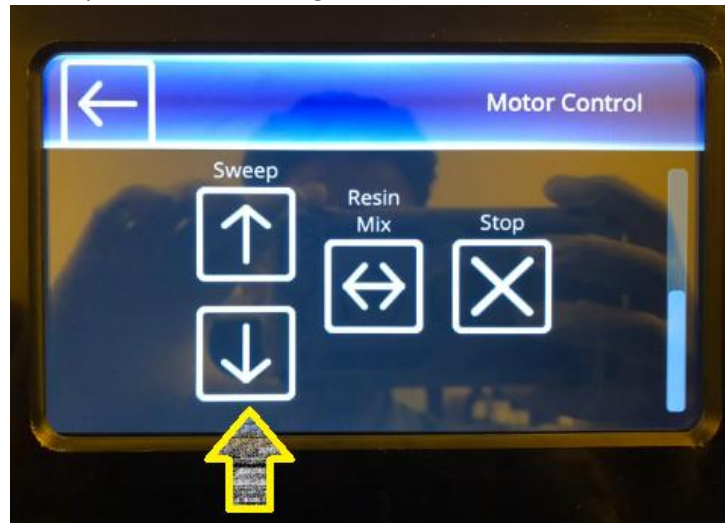


- Select next page on screen by swiping down action in next window

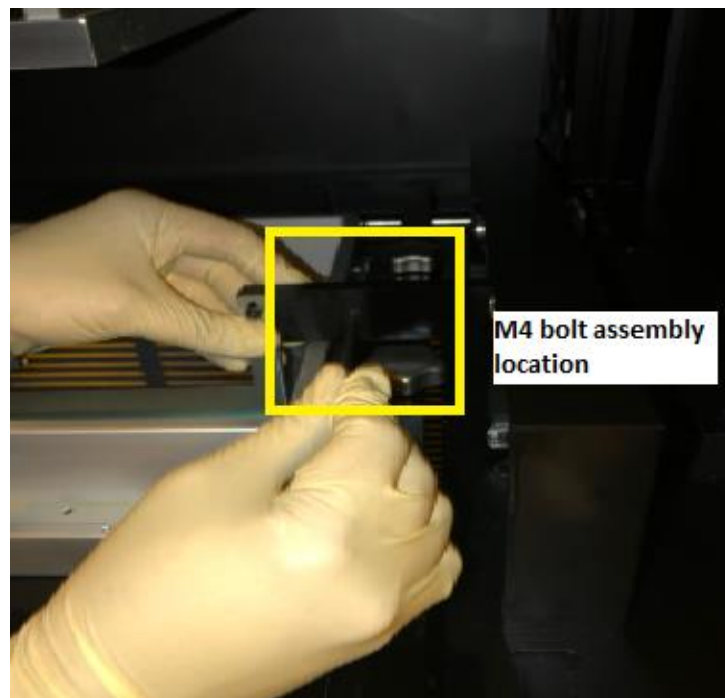


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- Select front action sweep menu as following



- Recoater will get forward (Near Door)
- Remove the front end screw from the module by using hex Allen key as shown in following image & remove the stirrer.

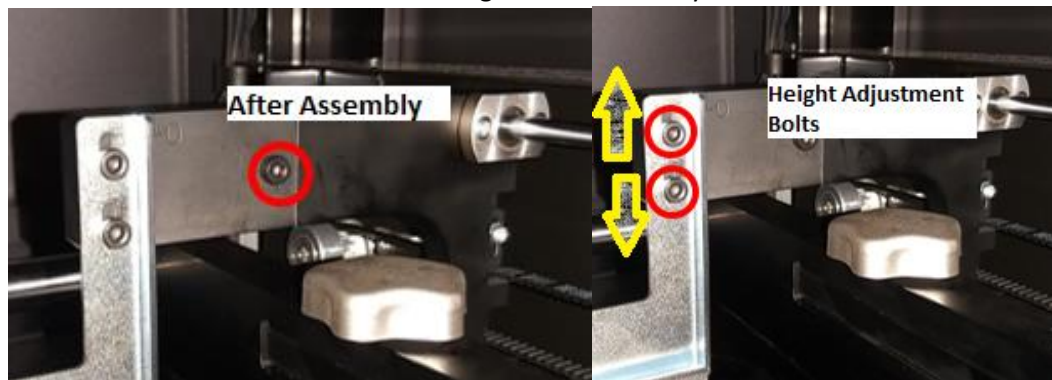


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- Using cotton cloth & alcohol, slightly clean stirrer.



- Reassemble stirrer on recoater module using the hex Allen key.



Note :-

- Recoater cleaning must be performed after change of resin for printing.
- After placing machine on standby mode for more than 12 hours or more, stirrer needs to be cleaned.

Thanks for reading carefully,

Team MiiCraft.