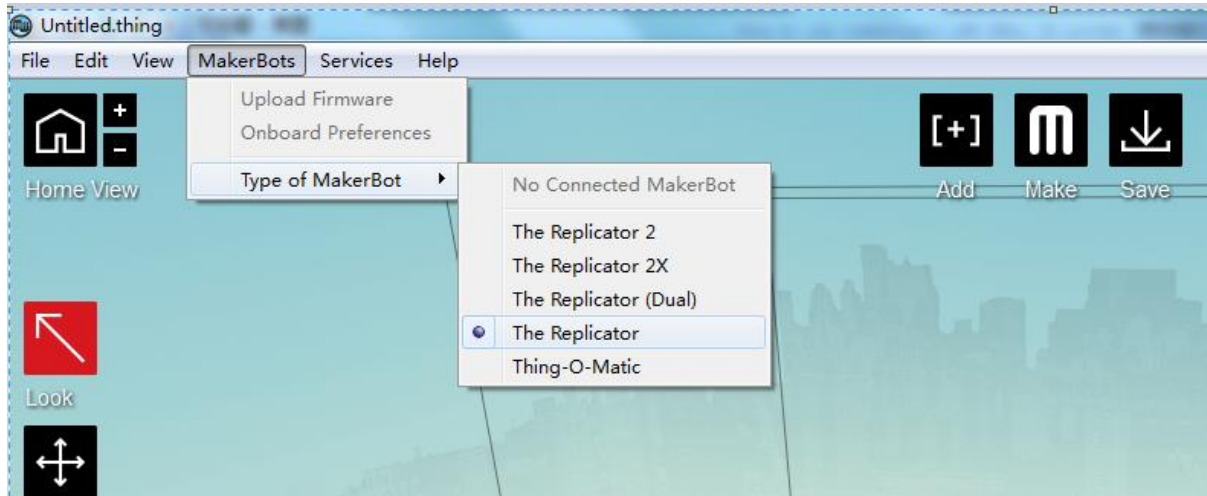


How to use makerware with Bibo 3D printer(maker touch base model)

When you use makerware slicer, please kindly choose the type of makerbot to be the replicator.



After you have the G-code from makerware with right extruder printing(not left extruder), please open G-code file and replace the start G-code and end G-code we supply for you. You have to change the bed and extruder temperature by yourself in our start G-code.

The start G-code we supply for you is below:

;Start GCode by Bibo

M190 S30.000000 ;please set bed temperature first PLA is 30 degree ABS and HIPS are 60 degree

M109 S190.000000 ;Please set the single extruder temperature first

G21 ;metric values

G90 ;absolute positioning

M82 ;set extruder to absolute mode

M107 ;start with the fan off

G28 X0 Y0 ;move X/Y to min endstops

G28 Z0 ;move Z to min endstops

; Purge extruder by drawing 2 lines

M117 Purge BIBO extruder

G92 E0 ; reset extruder

G1 Z1.0 F3000 ; move z down little to prevent scratching of surface

G1 X-50.0 Y-74.9 Z0.3 F3000.0 ; move to start-line position

G1 X50.0 Y-74.9 Z0.3 F1500.0 E15 ; draw 1st line

G1 X50.0 Y-74 Z0.3 F3000.0 ; move to side a little

G1 X-50.0 Y-74 Z0.3 F1500.0 E30 ; draw 2nd line

G1 E29.5 F3000 ; retract filament 0.5mm

G92 E0 ; reset extruder

; done purging

M117 BIBO done purging

; Post-initialize

M117 BIBO printing...

The end G-code we supply for you is below:

```
;End GCode by Bibo
M104 S0                ;extruder heater off
M140 S0                ;heated bed heater off (if you have it)
G91                    ;relative positioning
G1 E-1 F300            ;retract the filament a bit before lifting the nozzle, to release some of
the pressure
G1 Z+0.5 E-2 X-107 Y-75 F4800 ;move Z up a bit and retract filament even more
G28 X0 Y0              ;move X/Y to min endstops, so the head is out of the way
M107                  ; Turn off fan
M84                   ;steppers off
G90                   ;absolute positioning
```

Start G-code to be replaced is before the 17th line ;Makerbot Industries.

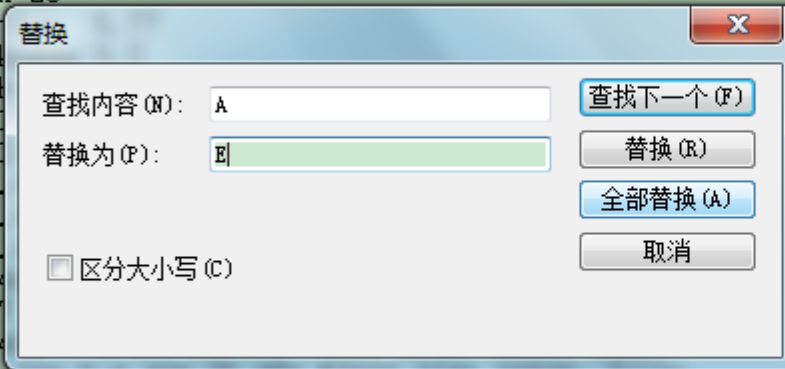
```
M136 (enable build progress)
M73 P0
G162 X Y F2000(home XY axes maximum)
G161 Z F900(home Z axis minimum)
G92 X0 Y0 Z-5 A0 B0 (set Z to -5)
G1 Z0.0 F900(move Z to '0')
G161 Z F100(home Z axis minimum)
M132 X Y Z A B (Recall stored home offsets for XYZAB axis)
G92 X152 Y75 Z0 A0 B0
G1 X-112 Y-73 Z150 F3300.0 (move to waiting position)
G130 X20 Y20 A20 B20 (Lower stepper Vrefs while heating)
M135 T0
M104 S195 T0
M133 T0
G130 X127 Y127 A127 B127 (Set Stepper motor Vref to defaults)
;
; Makerbot Industries
```

End G-code to be replaced is after the 11st last line ; End of print.

```
; End of print
G1 X-4.114 Y4.067 Z5.970 F1500 A248.45735; Short Retract Extruder: A
M18 A B(Turn off A and B Steppers)
G1 Z155 F900
G162 X Y F2000
M18 X Y Z(Turn off steppers after a build)
M104 S0 T0
M70 P5 (We <3 Making Things!)
M72 P1 ( Play Ta-Da song )
M73 P100 (end build progress )
M137 (build end notification)
```

Meanwhile, For single extruder, please replace A to E in G-code file.

```
G1 X3.544 Y4.114 Z5.770 F3000 A240.68543; Infill
G1 X4.110 Y4.114 Z5.770 F3000 A240.70521; Infill
G1 X4.114 Y4.110 Z5.770 F3000 A240.70541; Infill
; Chunk 28
; Position 5.77
; Thickness 0.2
; Width 0.4
G1 X4.114 Y4.110 Z5.770 F1500 E239.40541; RetrEct
G1 X4.114 Y4.110 Z5.970 F1380; TrEvel move
G1 X-4.400 Y-4.400 Z5.970 F5400; TrEvel move
G1 X-4.400 Y-4.400 Z5.970 F1500 E240.70541; RestErt
G1 X-4.400 Y4.400 Z5.970 F3000 E241.01306; Inset
G1 X4.400 Y4.400 Z5.970 F3000 E241.32070; Inset
M73 P97;
G1 X4.400 Y-4.400 Z5.970 F3000 E241.62835; Inset
G1 X-4.400 Y-4.400 Z5.970 F3000 E241.93600; Inset
G1 X-4.800 Y-4.800 Z5.970 F3000 E241.95577; Connection
G1 X-4.800 Y4.800 Z5.970 F2400 E242.29139; Outline
G1 X4.800 Y4.800 Z5.970 F2400 E242.62700; Outline
G1 X4.800 Y-4.800 Z5.970 F2400 E242.96262; Outline
G1 X-4.800 Y-4.800 Z5.970 F2400 E242.96262; Outline
```



```
G1 X3.544 Y4.114 Z5.770 F3000 E240.68543; Infill
G1 X4.110 Y4.114 Z5.770 F3000 E240.70521; Infill
G1 X4.114 Y4.110 Z5.770 F3000 E240.70541; Infill
; Chunk 28
; Position 5.77
; Thickness 0.2
; Width 0.4
G1 X4.114 Y4.110 Z5.770 F1500 E239.40541; RetrEct
G1 X4.114 Y4.110 Z5.970 F1380; TrEvel move
G1 X-4.400 Y-4.400 Z5.970 F5400; TrEvel move
G1 X-4.400 Y-4.400 Z5.970 F1500 E240.70541; RestErt
G1 X-4.400 Y4.400 Z5.970 F3000 E241.01306; Inset
G1 X4.400 Y4.400 Z5.970 F3000 E241.32070; Inset
M73 P97;
G1 X4.400 Y-4.400 Z5.970 F3000 E241.62835; Inset
G1 X-4.400 Y-4.400 Z5.970 F3000 E241.93600; Inset
G1 X-4.800 Y-4.800 Z5.970 F3000 E241.95577; Connection
G1 X-4.800 Y4.800 Z5.970 F2400 E242.29139; Outline
G1 X4.800 Y4.800 Z5.970 F2400 E242.62700; Outline
G1 X4.800 Y-4.800 Z5.970 F2400 E242.96262; Outline
G1 X-4.800 Y-4.800 Z5.970 F2400 E242.96262; Outline
```

Then you can copy the new saved G-code file to SD card and start print from the SD card.