

How to use 3D Printer

3D printer



Cubicon

Process of 3D printing

1. Modeling (Rhino, 3D max, Maya, Solidworks, etc...)
2. Save as STL file.
3. Slicing program (Cubicreator) execution and settings.
4. Convert STL file to Gcode
5. Save to SD card
6. Printing

Cubicon

- Input file type : .st
- Slicing software : Cubicreator
- Printing Technology
FFF(Fused Filament Fabrication)/FDM
- Size : 240 x 190 x 200 mm
- Nozzle diameter : 0.4 mm

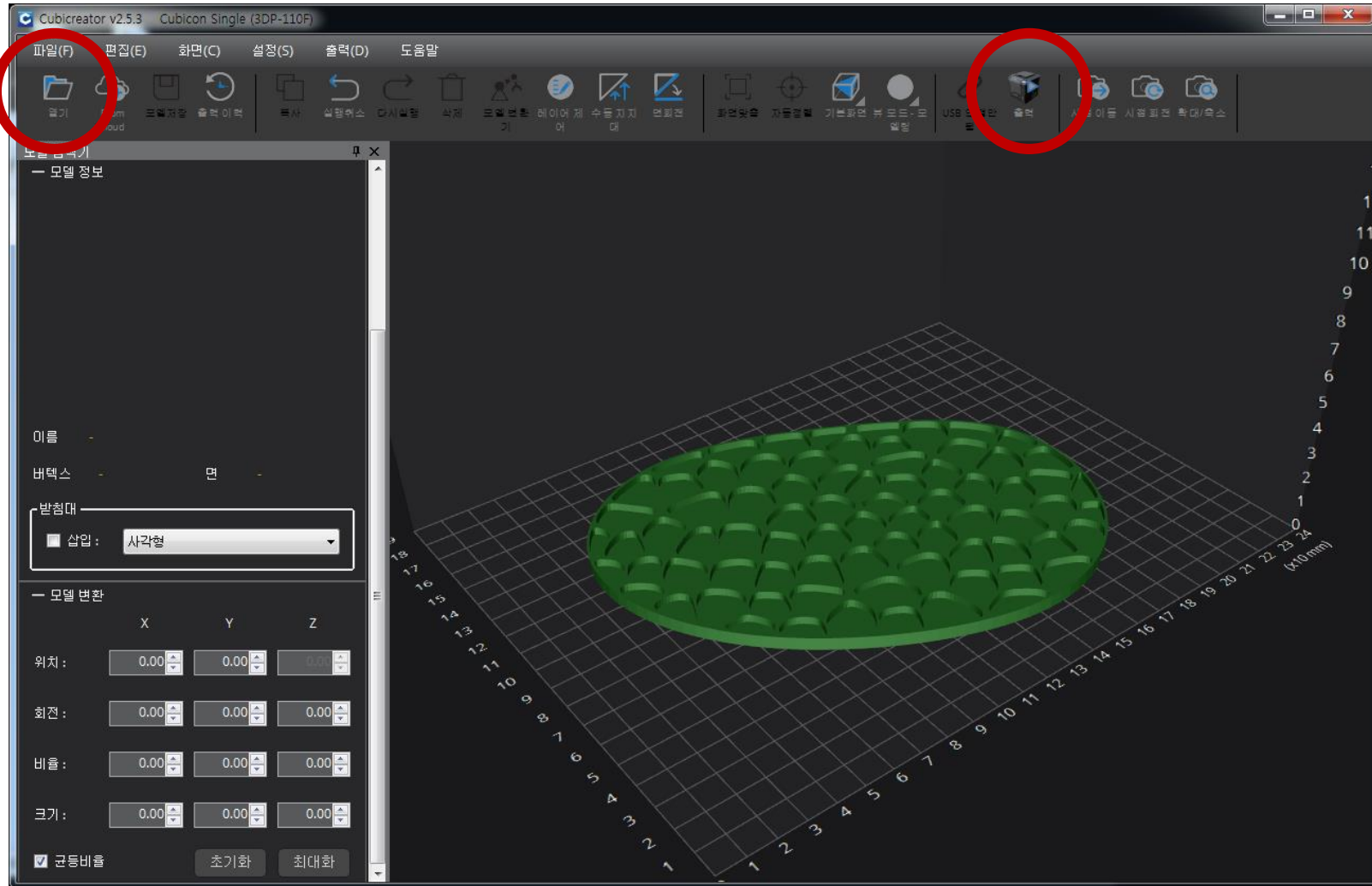
Cubicreator

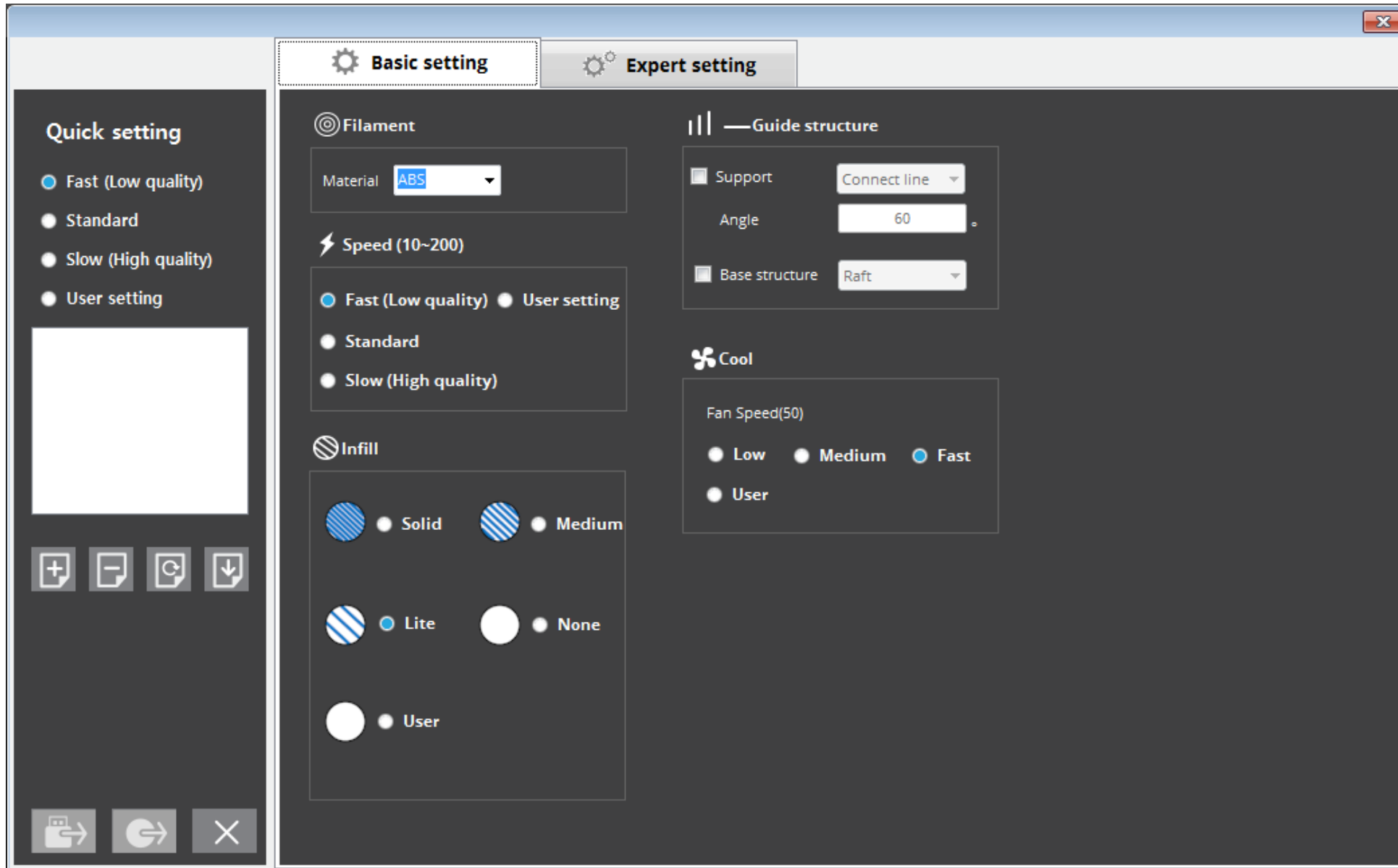
- Import STL file
- Print > Basic setting or Expert setting
- Support, Base structure
- Speed
- Temp.
- Export to hvs. file

Cubicreator

Print

Load





- Material
 - only ABS available
- Quality setting with speed & Infill
- Support & Base structure are optional.
(If area under the model is small or model is too high are more likely to fail.)

Quick setting

Fast (Low quality)

Standard

Slow (High quality)

User setting

Basic setting

Expert setting

Filament

Material

ABS

 Flow

(50~200)

100

 %

Temp (Bed 40~120, Ext 160~260)

Extruder Temp. (160~260)

240

 °C

Bed Temp. (40~120)

115

 °C

Chamber Temp. (30~55)

50

 °C

★ Quality

Layer height (0.1~0.5)

0.2

 mm

Wall thickness (0.4~125)

0.8

 mm

Bottom thickness (0.2~0.5)

0.2

 mm

Sink object (0~)

0

 mm

Spiralize

☐

Enable layer fill

☒

— Base structure

Type

Raft

Margin

5

 mm

Pattern length

7

 mm

Raft speed

40

 mm/s

Raft Temp. (160~260)

240

 °C

Adhesive strength(5)

1

9

Support

Range

Everywhere

Type

Connect line

Fill rate (0~100)

15

 %

Distance XY

0.7

 mm

Distance Z

0.15

 mm

Angle

60

 °

Infill

Rate (0~100)

10

 %

Top count (0~n)

6

 ea

Bottom count (0~n)

3

 ea

Infill overlap (0~100)

15

 %

Retraction

Enable retraction

☒

Enable combing

☒

Enable wall

☐

Distance

1.5

 mm

Minimum distance

1

 mm

Minimum extrusion

0.01

 mm

Speed (10~200)

Support speed

200

 mm/s

Travel speed

200

 mm/s

Inner wall speed

150

 mm/s

Outer wall speed

30

 mm/s

Bottom layer speed

20

 mm/s

Infill speed

150

 mm/s

Retraction speed

40

 mm/s

Fix model

Fill small hole

☒

Combine type A

☐

Combine type B

☐

Extensive

☐

Keep open polygon

☐

Cool

Cool head

☐

Fan on height (0~n)

0.5

 mm

Fan min speed

50

 %

Fan max speed

100

 %

Minimal layer time

5

 sec

- Filament
 - ABS
- Temp
 - remain default value.
- Quality
 - Layer height
- Base structure & Support
 - Choose only type.
- Infill
 - Rate (A well-broken model is 15% moderate)
- Speed
 - Support speed, Travel speed, Inner wall speed, Infill speed



Basic setting



Expert setting

Quick setting

- ☒ Fast (Low quality)
- ☐ Standard
- ☐ Slow (High quality)
- ☐ User setting

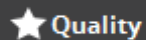


Filament

Material ABS Flow (50~200) 100 %

Temp (Bed 40~120, Ext 160~260)

Extruder Temp. (160~260) 240 °C
Bed Temp. (40~120) 115 °C
Chamber Temp. (30~55) 50 °C

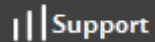


Quality

Layer height (0.1~0.5) 0.2 mm
Wall thickness (0.4~125) 0.8 mm
Bottom thickness (0.2~0.5) 0.2 mm
Sink object (0~) 0 mm
Spiralize ☐
Enable layer fill ☒

Base structure

Type Raft
Margin 5 mm
Pattern length 7 mm
Raft speed 40 mm/s
Raft Temp. (160~260) 240 °C
Adhesive strength(5) 1 9



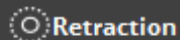
Support

Range Everywhere
Type Connect line
Fill rate (0~100) 15 %
Distance XY 0.7 mm
Distance Z 0.15 mm
Angle 60 °



Infill

Rate (0~100) 10 %
Top count (0~n) 6 ea
Bottom count (0~n) 3 ea
Infill overlap (0~100) 15 %



Retraction

Enable retraction ☒
Enable combing ☒
Enable wall ☐
Distance 1.5 mm
Minimum distance 1 mm
Minimum extrusion 0.01 mm



Speed (10~200)

Support speed 200 mm/s
Travel speed 200 mm/s
Inner wall speed 150 mm/s
Outer wall speed 30 mm/s
Bottom layer speed 20 mm/s
Infill speed 150 mm/s
Retraction speed 40 mm/s



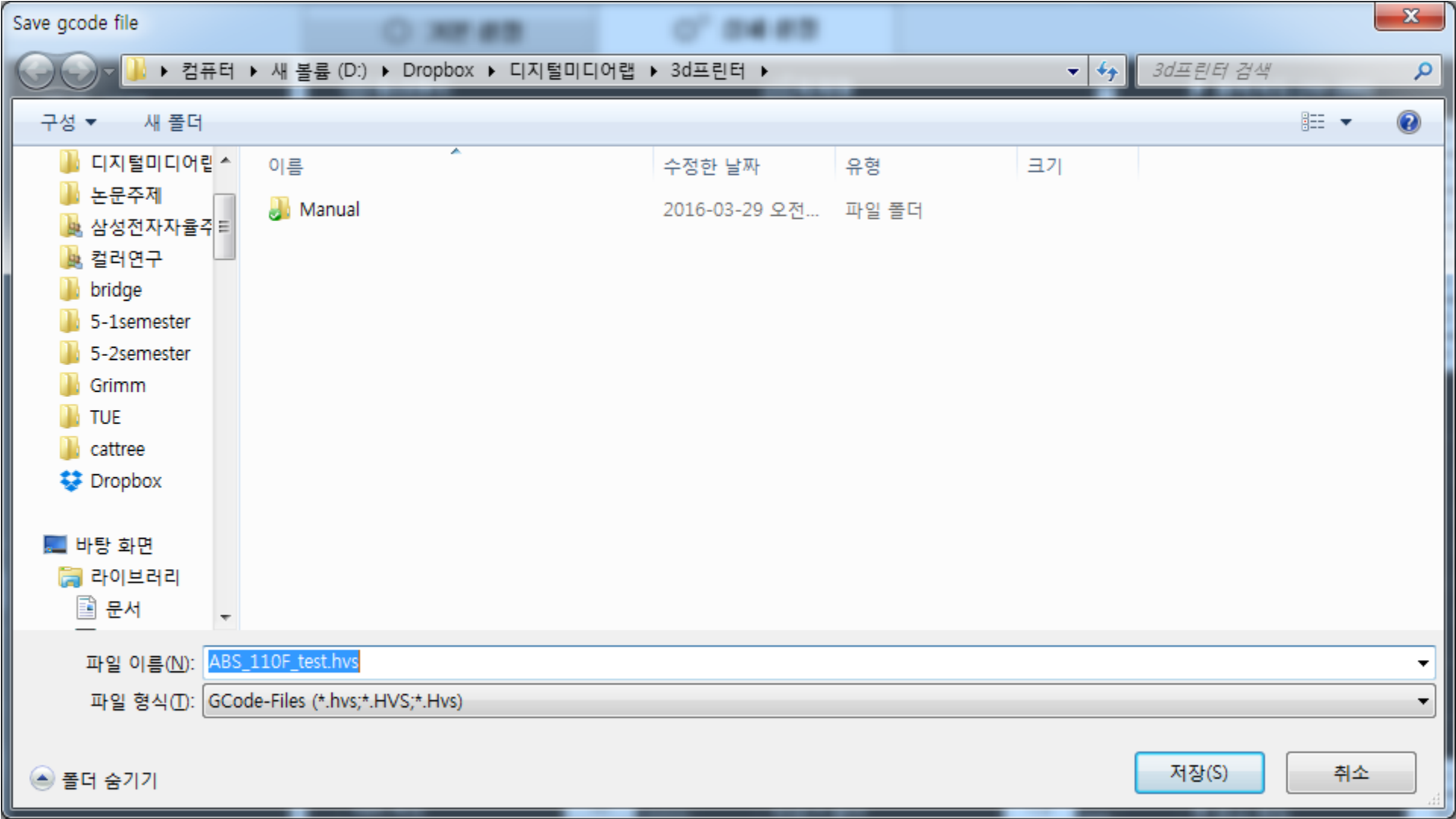
Fix model

Fill small hole ☒
Combine type A ☐
Combine type B ☐
Extensive ☐
Keep open polygon ☐

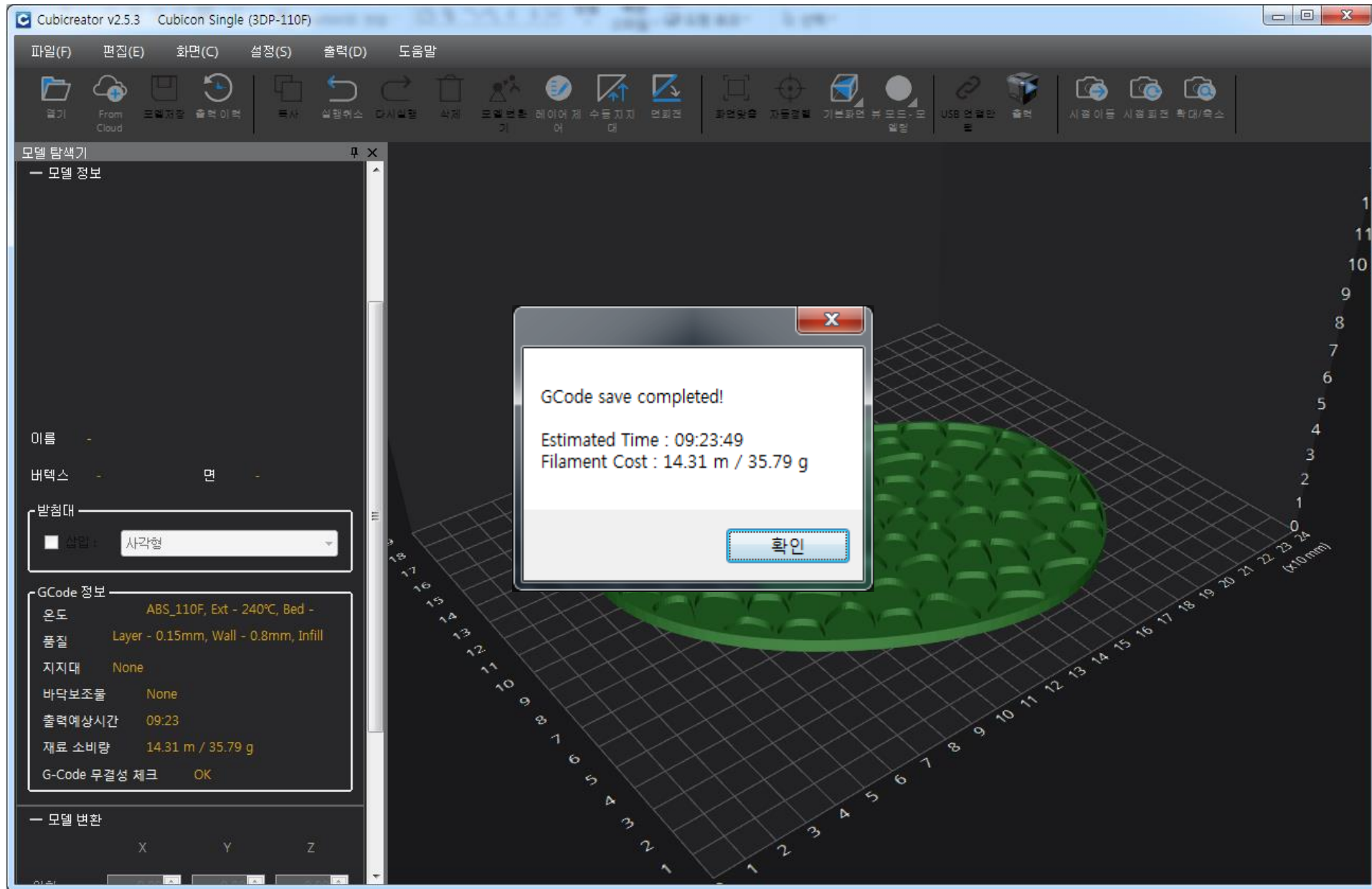


Cool

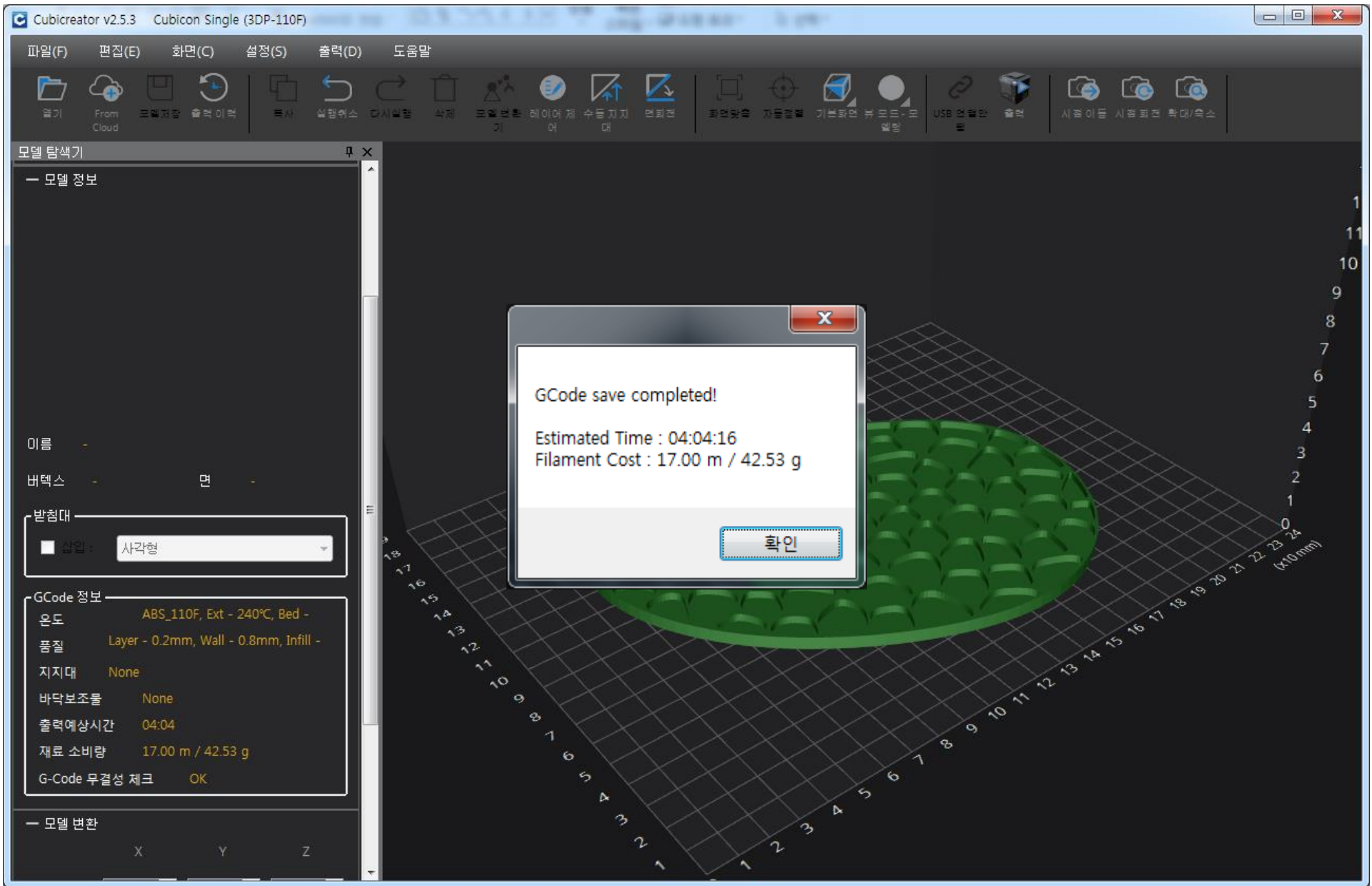
Cool head ☐
Fan on height (0~n) 0.5 mm
Fan min speed 50 %
Fan max speed 100 %
Minimal layer time 5 sec



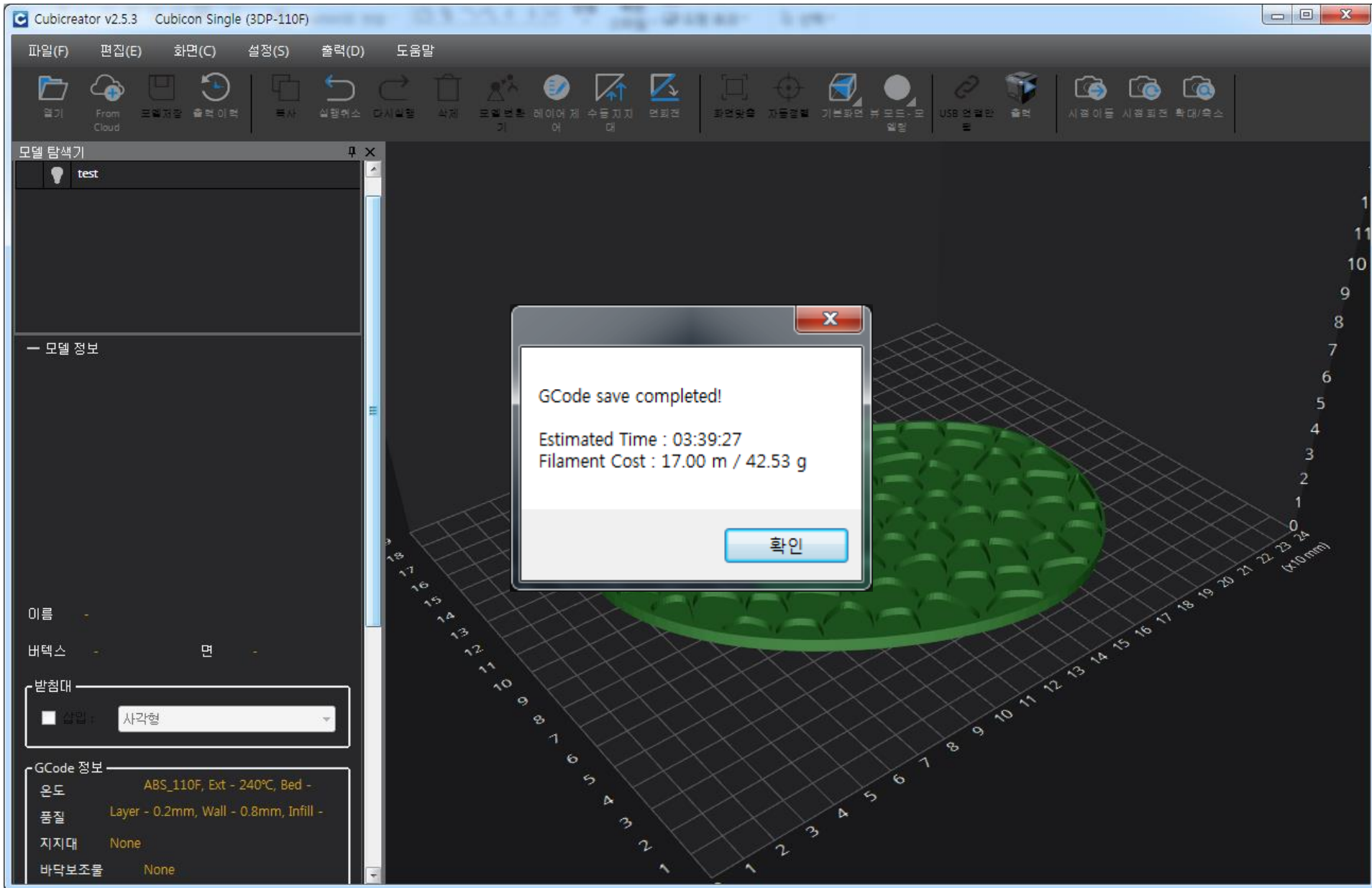
Slow



Standard



Fast



How to use

- Tutorial videos
 - 6. First printing : <https://youtu.be/oyB8w6LwUrY> (from 0:20)
 - 9. Plug and play : <https://youtu.be/o5g2j1oTQx4>
- Reboot button : Press the Enter & Back button simultaneously.
- End : Turn off the power button (back of the device)

Thanks