This user manual is described in detail to help your first experience with CHOCOSKETCH. The manual will show you how to simply and easily use the printer. Please carefully read and follow the manual to fully utilize CHOCOSKETCH.
Contents

Safety Information ........................................................................................................ 3
Specifications .............................................................................................................. 4
Product Function ......................................................................................................... 5
What’s in the Box ......................................................................................................... 6
Printer Overview .......................................................................................................... 7

How to use CHOCOSKETCH
1) Unpacking your CHOCOSKETCH ........................................................................... 8
2) Filament Loading and Unloading ............................................................................. 9
3) Leveling the Printing Bed ....................................................................................... 11
4) Display Menu Introduction ..................................................................................... 12
5) Start 3D Printing ..................................................................................................... 13

Additional function
1) Finger Sketch .......................................................................................................... 16

FAQ .............................................................................................................................. 18
Product Warranty ......................................................................................................... 21
Certification Mark ........................................................................................................ 22
1. The CHOCOSKTECH generates heats and includes moving parts that can cause injury. Thus, don’t put your hands in the machine while printing. After the printing is completed, wait until the temperature inside the printer goes down.

2. Never reach inside the printer while it’s operating.

KC Certification – CHOCOSKTECH is certificated by KC, which indicates that CHOCOSKTECH meets the requirements of customer protection on safety, health, and environment in Korea.
# Specifications

## Printing

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Build Size</td>
<td>1.7ℓ (210 X 110 X 75mm)</td>
</tr>
<tr>
<td>Printing Speed</td>
<td>20mm/sec</td>
</tr>
<tr>
<td>Hot-End(Nozzle) Size</td>
<td>0.84mm</td>
</tr>
<tr>
<td>Layer Resolution</td>
<td>0.3mm</td>
</tr>
<tr>
<td>Printing Material</td>
<td>Chocolate (Dark, Milk, White)</td>
</tr>
</tbody>
</table>

## Hardware

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruder</td>
<td>UNIVERSAL EXTRUDER</td>
</tr>
<tr>
<td>Shaft Thickness</td>
<td>X, Y, Z: 8mm</td>
</tr>
<tr>
<td>Belt/ Pulley</td>
<td>S2M Belt / Pulley</td>
</tr>
<tr>
<td>Internal LED Lighting</td>
<td>O</td>
</tr>
<tr>
<td>Equip Photo Sensor</td>
<td>O</td>
</tr>
<tr>
<td>Auto–Leveling</td>
<td>O</td>
</tr>
<tr>
<td>Installation Front Door</td>
<td>O</td>
</tr>
<tr>
<td>Pause/Unpause</td>
<td>O</td>
</tr>
<tr>
<td>Material Change While</td>
<td>O</td>
</tr>
<tr>
<td>Operation</td>
<td></td>
</tr>
<tr>
<td>Frame Dimension</td>
<td>464mm X 324mm X 558mm</td>
</tr>
<tr>
<td>Product Weight</td>
<td>14kg</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>10℃ ~ 40℃</td>
</tr>
<tr>
<td>Extruder Temperature</td>
<td>30℃ ~ 60℃</td>
</tr>
</tbody>
</table>

## Electronic

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>100 ~ 220v, 50/60Hz</td>
</tr>
<tr>
<td>Output</td>
<td>24v, 5A</td>
</tr>
</tbody>
</table>

## Software

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Program</td>
<td>Creator K</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows, Mac OS X</td>
</tr>
<tr>
<td>Compatible File Format</td>
<td>STL, OBJ</td>
</tr>
</tbody>
</table>
Welcome to CHOCHSKETCH

CHOCHSKETCH is a desktop 3D printer that can produce a three dimensional object using chocolate. It can use 3 different chocolate cartridges (dark, milk, and white) to produce objects up to size of 1.7L. You can simply print without complex procedure, and it will be your unique chocolate structure that cannot be found anywhere else.

Product Function


   (Warmer always keep the temperature as 40°C)

3. Height Detector: When you want to print chocolate on and even surface, the printer sensing the heights of it.
   (Note that surface of base materials should be flat)

4. Finger Sketch: Automatically convert your Hand-Made picture to 3D design and print using chocolate.
### What’s in the Box

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Printer Body</strong></td>
<td>CHOCOSKETCH Printer</td>
</tr>
<tr>
<td><strong>Paper Foil</strong></td>
<td>Paper Foil, Hex Wrench</td>
</tr>
<tr>
<td><strong>Hex Wrench</strong></td>
<td>SD Card 4GB, Power Supply, Mini USB Cable, Power Cable, Choco Catridge</td>
</tr>
<tr>
<td><strong>SD Card 4GB</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Power Cable</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mini USB Cable</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Quick Guide</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Removal Tool</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Choco Catridge</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FINGER SKETCH Box</strong></td>
<td></td>
</tr>
</tbody>
</table>

**CHOCOSKETCH Printer**

- Printer Body
- Paper Foil
- Hex Wrench
- SD Card 4GB
- Power Supply
- Power Cable
- Mini USB Cable
- Quick Guide
- Removal Tool
- Choco Catridge
- FINGER SKETCH Box

**Welcome Box**

- Paper Foil, Hex Wrench, SD Card 4GB, Removal Tool

**Accessories**

- Finger Sketch, Power Supply, Power Cable, Mini USB Cable, Choco Catridge
Printer Overview

9. Arrows and OK Button 10. SD Card Slot
How to use CHOCOSKETCH

Unpacking your CHOCOSKETCH

First, open the box and remove welcome box. Carefully take out the CHOCOSKETCH from the box and put it on a sturdy table.

After removing the packing buffers surrounding CHOCOSKETCH, check the component set.

Do not discard the box and the packing buffers. You may use them later to transport the printer.
How to use CHOCOSKETCH

Cartridge Installation

1. Pull out the cap of syringe and put the plastic needle then put it into the extruder.

2. Turn the gear in reverse direction to loosen the belt, and put the cartridge to extruder of CHOCOSKETCH.

3. Insert the stopper to the syringe and put forward the gear tightly.

4. Select Utilities > Preheat and melt the chocolate during 30 minutes.

5. Put the gear forward to take little chocolate out.
How to use CHOCOSKETCH

Replace the Cartridge

To replace the filament from the extruder, select Utilities > Filament Loading and select Unload Right.

Pull cartridge out from extruder when the belt is loosened enough after the gear is moved in opposite direction.

Changing New Cartridge is the same as Page 9.

You can reduce the Pre-Heat time of cartridge if you use the cartridge in the warmer.
How to use CHOCOSKETCH

Leveling the Printing Bed_ Auto-Leveling

Select Utilities > Level Build Plate on the display menu.

Select Home Check to confirm the origin.

Select P1 to adjust the number. Set number as 0.00 through adjusting nuts under Heat-Bed.

In Creator K, if you check Auto-Leveling item when generating G-Code, Auto-Leveling function will automatically work. (Uncheck Auto-Leveling if you don’t want it)

- Despite of using Auto-Leveling function, if the gradient of the printing bed is too steep because no zero point leveling has been done, Z axis will operate too much and may lower the quality of the output.
- When extra force or shock is exerted on Heat-Bed, the levelness of the Heat-Bed could be affected.
- Before your first use, please adjust the levelness of Heat-Bed as described above to optimize the production quality.
How to use CHOCOSKETCH

Detect the Height of Bottom

1. Put on the material which you want to print chocolate on it. (Note that surface of base material should be flat)

2. Go to Utilities > Height detector and turn on Height detector function.

3. Check Height detector when you create G-Code file using Software. (Creator K)

4. Save the file in .x3g format in 3D card you prepare and start printing.
Display Menu Introduction

There are 3 configuration items on the display menu: Print from SD, Preheat and Utilities.

1. Print from SD: To load a file from SD Card.
2. Preheat: To preheat the Hot-End(Nozzle) and Platform.
   - Right Tool: By setting On/Off, you can start preheating of the right extruder.
   - Left Tool: By setting On/Off, you can start preheating of the left extruder.
3. Utilities: It will lead to 12 different options for hardware. You may not change the settings without any specific explanation because they are only for developers or aftersales service.
   - Monitor Mode: It shows current temperature of the extruder and printing status.
   - Filament Loading: To put the filament into the extruder or pull it out of the extruder.
   - Preheat Settings: To set up temperature and the Extruder.
   - General Settings: To configure sound, LED color or etc.
     • Ditto Printing Off
     • Override GCTemp Off
     • Pause with Heat Off
     • Sound On/Off
     • Heat LEDs On/Off
     • LED Color: To change LED colors.
     • Accelerate On/Off
     • Extruders
     • Extruder Hold On/Off
     • HBP Installed Yes/No
     • Tool Offset Sys New/Old
     • Check SD Reads Yes/No
     • P-Stop Control On/Off
How to use CHOCOSKETCH

Display Menu Introduction

- Home Axes: To default the position of X, Y, Z axis.
- Jog Mode: To manually control the location of the extruder and the Heat-Bed.
- Height Detector: When you want to print chocolate on and even surface, the printer sensing the heights of it.
- Restore Settings
- Eeprom
- Restore Settings
- Eeprom
How to use CHOCOSKETCH

**Start 3D Printing**

1. Prepare STL or OBJ file you want to print out. You can also easily download STL files from free 3D file websites.

2. Select File > Open and choose STL file you want to 3D print out. You also can drag and drop the 3D image file to Creator K.

3. Printer > Select CHOCOSKETCH from printer type. Check Right Nozzle, then click Gcode Generate icon, located on left side of the icons.

4. SD card icon color will change, indicating G-Code is has generated successfully. And then click the SD card button to save the file in x3g format into SD card.

5. Insert the SD card on the right of the printer.

6. Select Preheat from display menu, and preheat your device to 43°C for 30 minutes.

7. After preheating, start your production from the file, by selecting Create from display menu.

   * TIP: once production is started, change temperature of the nozzle to 40°C, by selecting Utilities > Change temperature (RECOMMENDED). You may adjust the temperature 1~5°C more or less, depending on the room temperature.

---

※ You can also print directly from your Creator K by connecting your computer to the printer with the USB cable without using SD card.

※ You can download this software, Creator K, and the concerned manual on the ROKIT’s website. (http://en.3dissonprinter.com/)
How to use CHOCOSKETCH

Setting the Finger Sketch

1. Put adapter on the socket after connecting power plug to the power port. (beside of finger sketch)

2. Connect finger sketch and USB drive port using mini USB cable.

3. After step #1, #2 finished, first light on the top of finger sketch will be turned on.

4. Lights on the finger sketch will be turned on after 1 minute.

5. Click doodle 3D on the Wifi list from tablet PC or computer network.

6. After connecting finger sketch’s wifi, second light will blink slowly at first and rapidly.

7. You can check Print connected on the right upper of the website (www.doodle3d.com) if the setting was successful.
How to use CHOCOSKETCH

Finger Sketch Manual

1. Setting cartridge. (refer to page 9 for detail)
2. Access the website (www.doodle3d.com) through tablet PC or computer. (Check Print connected)
3. Draw the picture freely on the screen.
4. Click ! icon to set the expected output value.
5. Click Print button after image is created.
6. When the message of “Seeding poodler to print” Shows on screen, printing will start soon.

※ Finger Sketch Output Value
Layer Height: 0.2mm
Wall Thickness: 0.3mm
Filament Thickness: 1mm
Temperater: 40℃
Speed: 13mm/s
Bottom Layer Speed: 13mm/s
Traverling Speed: 100mm/s
FAQ

Hardware

What if the chocolate isn’t printed well?
- If the chocolate of the nozzle part wasn’t melt enough, the chocolate isn’t printed well. It’s better to preheat enough (Utilities > Preheat). Also it is affected by the surrounding environment, If the external temperature is low, please raise the preheat temperature 1~5℃ higher than usual.

What if the chocolate printing out irregularly?
- The cause is loose levelling. Reduce the gap between Heat-Bed and Hot-End through making the levelling tight until chocolate being pressed a little bit.

What if the edges of printed chocolate shape are floating?
- The cause is the low temperature of external environment. The recommended external temperature is from 24~30 degree. Please raise the external temperature, do not print the chocolate in the low temperature (below 24℃).
  ※ Appropriate temperature will be changed depend on the season or surrounding environment.

Is it possible to adjust the printing speed and temperature on the machine while printing?
- Yes. When pressing the OK button on the machine, you can adjust the printing speed and temperature while printing. Moreover, you can control the printing process such as temporary pause or cancellation.
FAQ

What is the Auto-Leveling?
- Auto-Leveling is the function that the horizontality of the Heat-Bed is automatically adjusted. Thus, all users can easily use 3D Printing without manual adjustment.

Is it possible to use Standard-Levelling?
- The CHOCOSKETCH support Standard-Levelling and Auto-Levelling. If you want Standard-Levelling : Level build plate ([Utilities] > [Level Build Plate]) → Set the levelling manually (Left, Right, Front, Back, Middle) → Remove the check box of [Auto Leveling] on Creator K S/W. → Print. If you want Auto-Levelling : Level build plate ([Utilities] > [Level Build Plate]) → Set the levelling manually (Left, Right, Front, Back, Middle) → Check the box of [Auto Leveling] on Creator K S/W. → Print.
FAQ

Software

Is it possible to design 3D contents using dedicated software (Creator K)?
- You can’t modify 3D design using Creator K. Default Setting of Creator K is optimized for users. You need to use separate program for modeling and designing of 3D contents.

Can Mac OS use the dedicated 3DSION Software (Creator K)?
- Dedicated 3DSION’s software (Creator K) supports Windows and Mac operating systems. These operating systems can easily be installed and used. You can download the manual for installation on the website.

Material

Is it possible to use the chocolate from the market?
- Possible, but we recommend you to use the chocolate cartridge provided from Rokit, for stable result and product protection. Also, it can be ruled out of A/S when the problem caused by reason mentioned above.
Product Warranty

About the Service:
The following are terms of Warranty applicable to Rokit products. Please contact the vendor from whom you purchased the product in case of product failure.

Service with Free of Charge
Rokit will repair, without any charge, any merchandise proved defective in material or workmanship for the warranty period of one year. (It will not be applied if the product has been subjected to abnormal physical or electrical stress, abnormal environmental conditions, misuse, negligence, or accident)

Service with Charge
If the product is not experiencing any failure but you request for service, a service charge may apply regardless of the warranty period. Please refer to the instruction manual for more information.

1. Damage caused by user
   - Damage, deterioration, or malfunction resulting from modification or attempted repair by consumer
   - Malfunction resulting from repair by someone other than Rokit certified technician
   - Malfunction resulting from use of parts and components not supplied by Rokit
   - Malfunction resulting from not following instruction manual

2. Other cases
   - Malfunction resulting from natural disaster (fire, salt damage, flood, lightning)
   - In case expendable components are fully used

Introduction for the Criteria of Consumer Dispute Resolution

<table>
<thead>
<tr>
<th>Types of Consumer Damage</th>
<th>Contents of Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance or functional failure within the warranty period under the conditions of normal use</td>
<td></td>
</tr>
<tr>
<td>If major repair is needed within 10 days of purchase</td>
<td>Product exchange or refund</td>
</tr>
<tr>
<td>If major repair is needed within 1 month of purchase</td>
<td>Exchange of product or free repair</td>
</tr>
<tr>
<td>If at time of purchase, damage occurs during installation or shipping process</td>
<td></td>
</tr>
<tr>
<td>In case product is not exchangeable</td>
<td>Refund</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairable</td>
<td></td>
</tr>
<tr>
<td>In case failure occurs twice for the same cause</td>
<td>Free repair</td>
</tr>
<tr>
<td>In case failure occurs third for the same cause</td>
<td>Exchange of product or free repair</td>
</tr>
<tr>
<td>In case failure occurs 5 times for different causes</td>
<td>Product exchange or refund</td>
</tr>
<tr>
<td>In case the service provider has lost the customer's product</td>
<td></td>
</tr>
<tr>
<td>In case replacement item is available but repair is not possible</td>
<td>Product exchange or refund</td>
</tr>
<tr>
<td>In case replacement item is not available during retention period</td>
<td></td>
</tr>
</tbody>
</table>

ROKIT Service Information
※ The KC (Korea Certification) signifies compliance with Korea’s product safety requirements for electrical and electronic equipment and components that utilise power. It is a legally compulsory certification mark that must appear on products as specified in related laws and ordinances.
Multiple Perfection
3D Printer

3DISON 3D PRINTER ©ROKIT Inc.

B-1106 Kabul Great Valley 60-5
Gasan-dong Geumcheon-gu Seoul Korea
http://en.3disonprinter.com/
T. 02-867-0182
F. 02-865-0182
E-mail. 3dison@rokit.co.kr