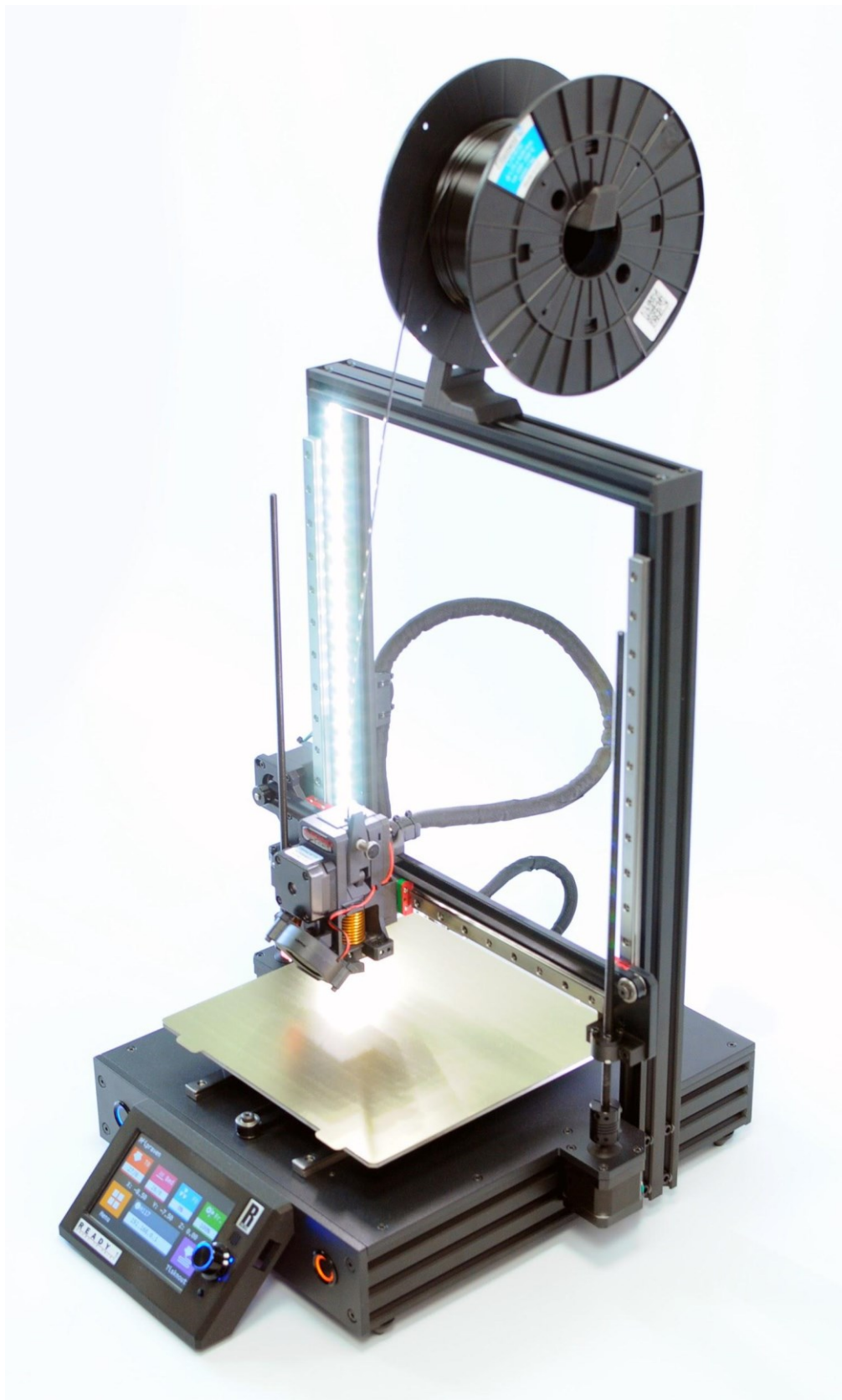


READY REBEL 1 MANUAL



<https://www.facebook.com/readyrebel1>

<http://ready3d.store/en/>






Accountability disclaimer

Read the contents of this manual carefully please. If you don't read this manual carefully, it can at minimum lead to underwhelming results or to damaging of the printer REBEL READY 1 (RR1 from now on) or in the worst case scenario even to injury, so please make sure that anybody that will use this 3D printer knows and understands the contents of this manual well enough to be able to use the printer RR1 safely and optimally.

Conditions or methods used for manipulation, storage, usage or disposal of the product are not in our control and can be above our knowledge. That said, we will not be held accountable for any related loss, injury, damage or charges as a result of manipulation, storage, usage or disposal of the product.

The information in this document was acquired from trusted sources and we believe it to be reliable. As far as the correctness of the information goes, we provide this information without a warrant.

Safety instructions

	Only well informed individuals should work with the printer.
	The printer needs to be supervised at all times. In case of a malfunction, stop the print and switch off the printer.
	The printer contains parts and surfaces that reach dangerous temperatures (up to 300°C) which can stay hot after the printer is switched off. Burn injury hazard!
	The printer is powered by high voltage. Always switch off and plug the printer out of the wall socket before working with the power supply.
	The printer contains moving parts. Don't interact with the printing volume during printing. The printer can make a move even without warning beforehand. Injury hazard.

Content

Safety instructions	2
Content	3
About READY REBEL 1 (RR1)	4
3D printer specifications	5
Basic description of the printer	6
Menu LCD	8
Main menu	8
Print menu - media selection	9
Print menu - gcode selection	9
Print menu	10
Menu	11
Submenu "Movement"	12
Enter the menu of manual movements of the axes Move	12
Enter the leveling menu - no need to control here, controlled by gcod !!!	12
Enter the menu of manual washer alignment - unused function !!!	12
Enter the BabyStep menu to fine-tune the first layer	12
Menu "BabyStep"	13
Increase the print height by the selected height step (Z feed)	13
Save settings	13
Selection of the feed step Z in steps of 0.01, 0.1 and 1 mm	13
Menu "Heat"	14
Menu for manual extrusion and filament exchange - Extrude	15
Submenu "Move"	16
Preparing to print	17
Turn on the printer for the first time	17
Printing area	17
Removing a printout	17
Inserting / removing / replacing the filament	18

About READY REBEL 1 (RR1)

For the RR1, speed and accuracy are a matter of course!

The printer achieves high accuracy thanks to precise branded linear guides and high-quality belt drives. In addition to accuracy, it is also very fast compared to other RR1 machines, while maintaining excellent quality thanks to sufficiently dimensioned drives and light moving parts. Treat yourself to first-class printing!

Rigid construction is a sign of stability.

The solid construction of the RR1 ensures excellent stability in all printing conditions, which increases print quality.

Maximum lightweight direct drive printhead with dual-drive

the drive and transmission system is tuned to easily reach the speed and acceleration of Bowden lightweight extruders (without motor on the platform) while maintaining top print quality.

Large print space to implement your ideas

You have a large print space for printing even the most demanding models with a floor plan of 235x235mm and 300mm print height! Implement your ideas and turn them into printed facts.

Hotend is the foundation

We use combinations of extruder parts and hot ends with components of the highest quality manufacturers available for our printers. The main elements of the hotend are compatible with E3D in the highest quality. They can print virtually all available print materials, which means complete freedom for you to choose them. PLA, ABS, HIPS, ASA, PET, nylon, polycarbonate, flexible materials, filled or highly abrasive filaments. Hotend handles material printing up to 300°C.

Automatic axial calibration

The design of the printers is strong and accurate enough that no special calibration is required. The only way to align the Z axis is to use a digital scan sensor (BL-TOUCH), which allows the printer to automatically compare the Z axis using a pad, even if it is replaced by a different surface thickness (PEI, PET, GLASS) and therefore flawless first layer - the basis for successful model printing.

Quality printing pad

On the RR1 printer, we use a high-quality removable printing pad with powerful and even heating. The actual printing surface then forms polyetherimide (PEI). It fastens practically all commonly used printing materials, is maintenance-free and very durable.

PC-free printing

You do not need a computer connected to the printer to print. Thanks to the LCD display with SD card reader or USB flash drive, everything is simpler. The model can be easily loaded on one of the media and the printer then prints directly from it. Simple, reliable.

Resuming after an unexpected print interruption

The control system is equipped with the function of resuming printing after a power failure, so it is possible to resume printing where it left off when printing is interrupted. The system is functional, but not 100% reliable in all circumstances, so we recommend installing a suitable UPS to eliminate interruption of printing due to loss of power.

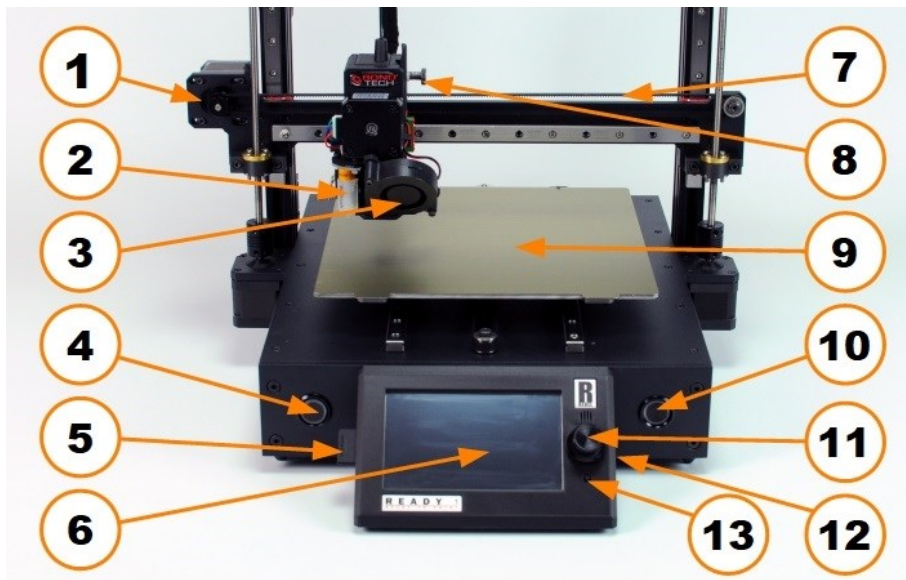
Calm and quiet operation

Although it is a printer with a relatively high power drive system, it can be described as relatively quiet, mainly due to the combination of massive construction, precise linear guides and quality control of stepper motors.

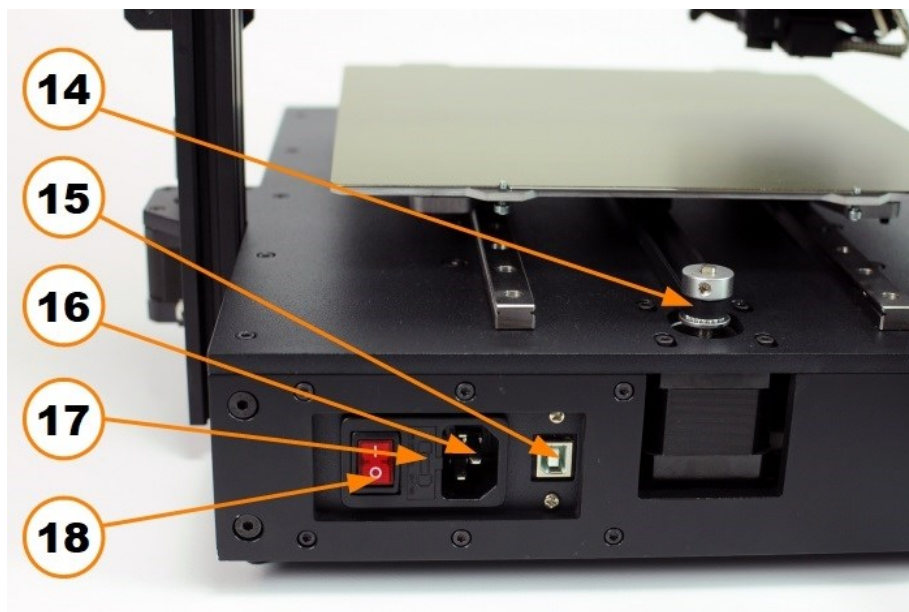
3D printer specifications

3D Printing Technology:	Fused Deposition Modeling (FDM)
Print space:	235x235x300mm (X, Y, Z)
X / Y axis resolution:	0.025mm
Z axis resolution:	0.0025mm
Max. nozzle temperature:	300°C
Max. substrate temperature:	115°C
Heated bed:	magnetic with removable foil and PEI surface
Ovládání a rozhraní:	5 "touch LCD display with SD card reader and USB flash drives, integrated WiFi for basic printer control and monitoring. USB interface for printing from a PC or OctoPrint print server (Wifi, Ethernet), RepetierServer, etc.
Supported print formats:	STL, gcode; Standard slicers such as Simplify3D, Cura, Slic3r etc.
Dimensions:	43x45x54cm
Weight:	14kg
Mains voltage:	100-240VAC
Printer power supply:	24VDC system, 350W

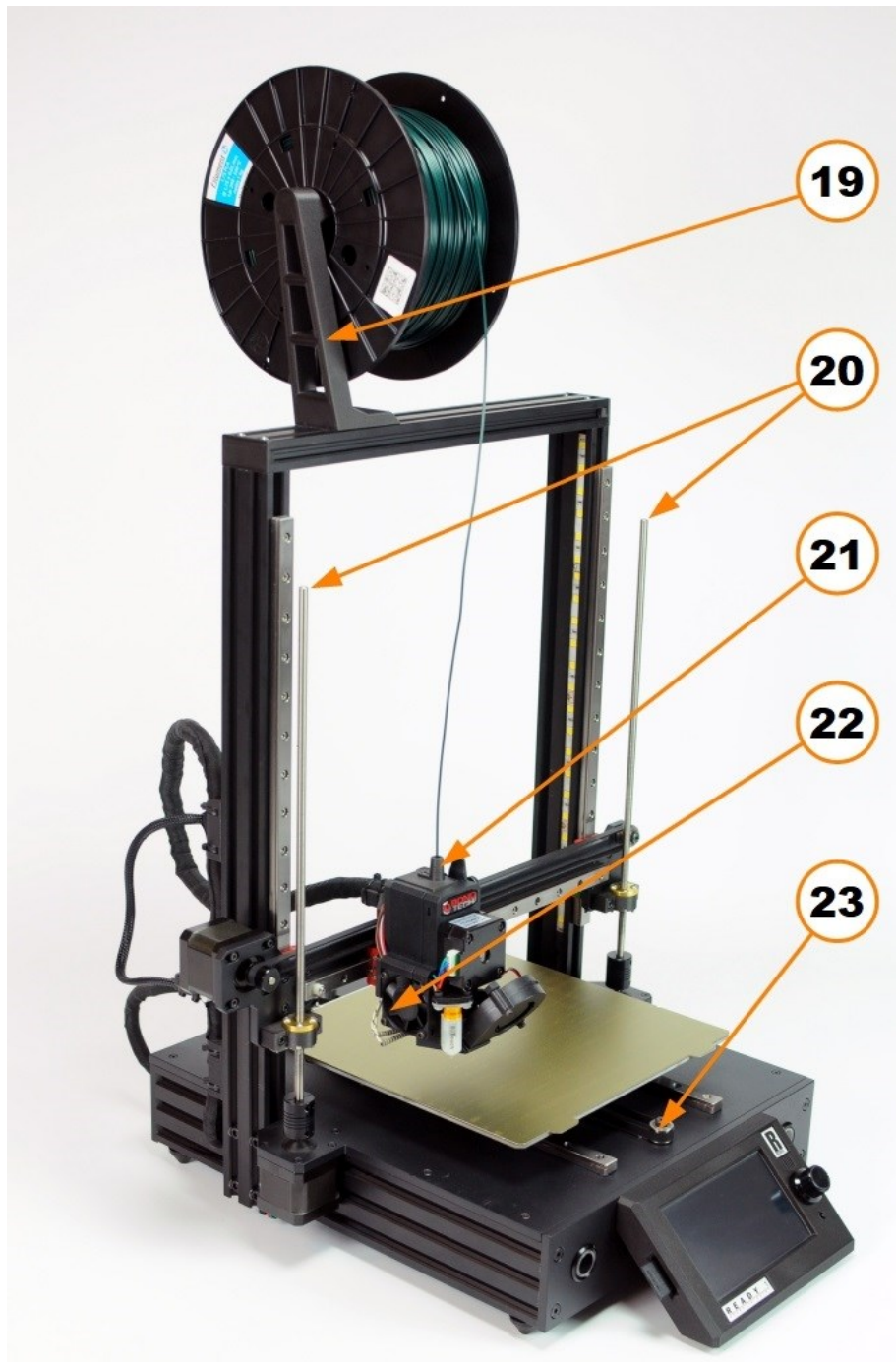
Basic description of the printer



1. Tensioner X
2. Leveling sensor
3. Cooling the printout
4. Operating switch
5. SD card reader
6. LCD control
7. Belt X
8. Extruder pressure extruderu
9. Printing plate
10. Lighting switch
11. Rotary knob
12. USB for flash drive
13. Reset button



14. Tensioner Y
15. USB connector
16. Power connector 230VAC
17. Fuse
18. Main switch



- 19. Filament spool holder
- 20. Trapezoidal screws Z
- 21. Filament input
- 22. Hotend radiator fan
- 23. Belt Y

Menu LCD

The printer is controlled by a 5 "touch LCD display, which provides high comfort and ease of use. Most square information icons serve as a direct entry to the menu for changing a given quantity. The individual menus described here are those that are important for the operation of the printers. We do not recommend using other items not listed here if you are unsure of their functions and impact on machine operation and printing !!!

Main menu



Enter the **Heat** menu and set the nozzle temperature with the current / set temperature displayed



Enter the **Heat** menu and set the bed temperature with the current / set temperature displayed



Enter the **Fan** menu and set the fan speed.



Enter the **Flow** and **Speed** menu for global speed correction or material flow adjustment



Information panel where notifications from the printer are displayed. After pressing it, a chronological list of the latest operating messages can be displayed.

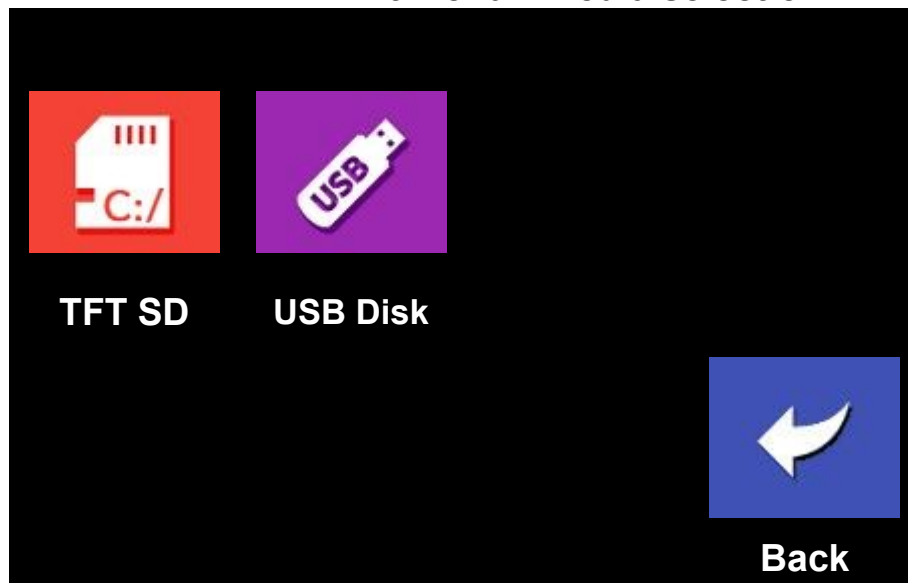


Enter the Control and Settings submenu to set and control other functions



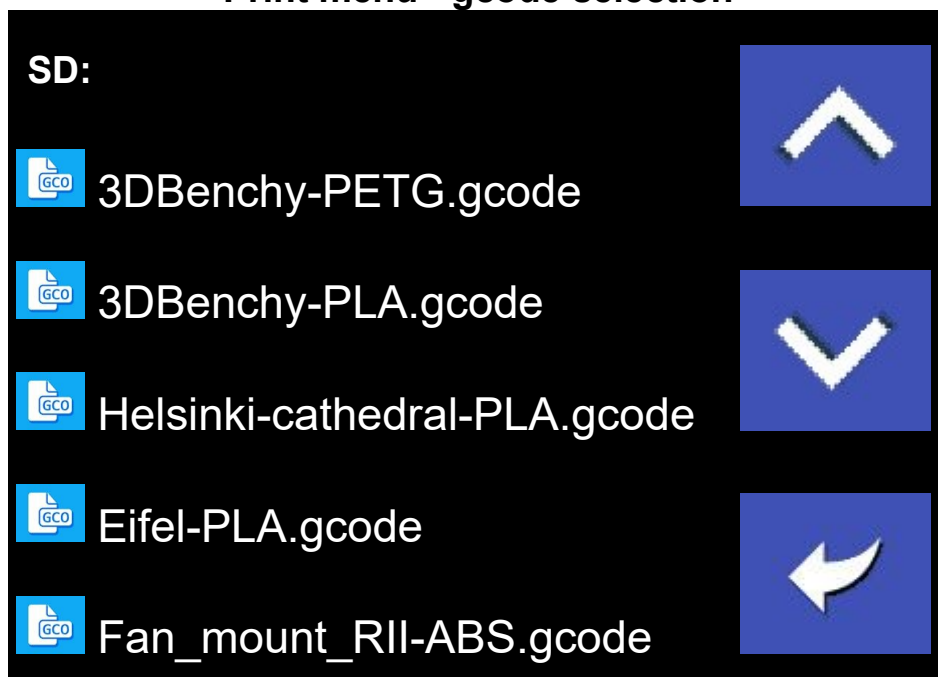
Enter the **Print** Menu to select a file and start printing

Print menu - media selection



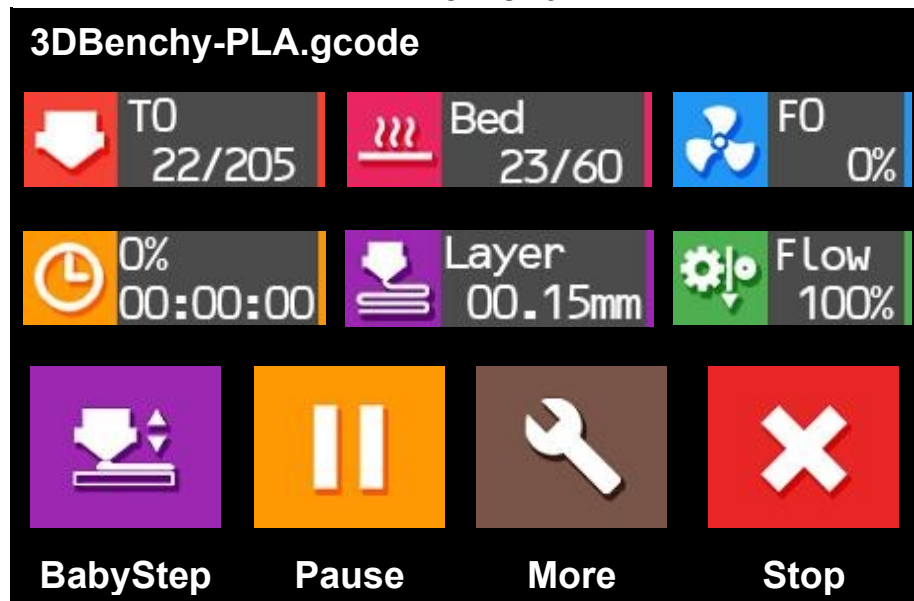
Touch to select the media you want to print from, or return to the main menu

Print menu - gcode selection



Touch the file named gcode to select it and confirm or cancel printing in the following dialog box.

Print menu



Enter the **Print** menu to adjust the Z offset to fine-tune the ideal first print layer



Pause printing



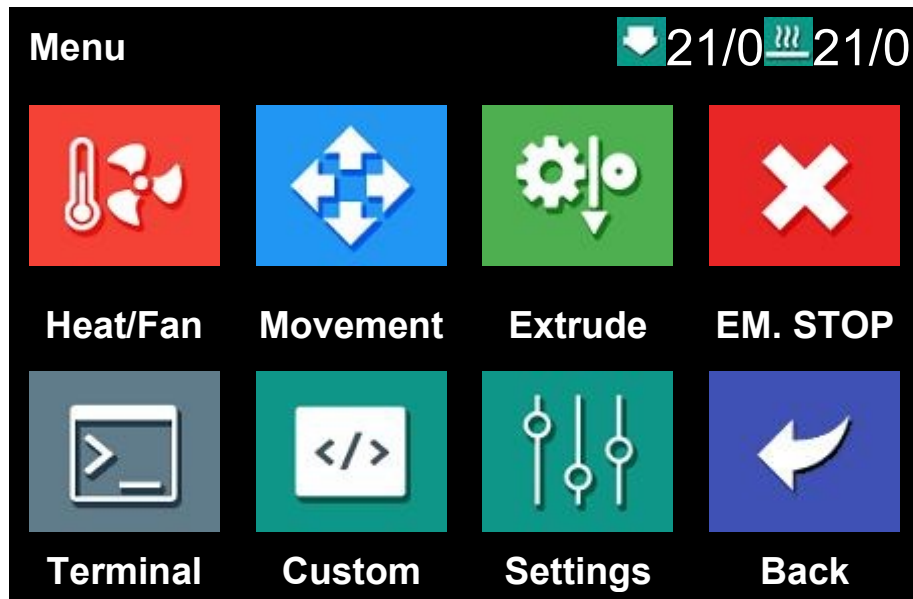
Enter the Print Tuning Menu



Stop printing

The first 6 panels provide information on temperatures, cooling capacity, print length, height of the current printed layer, and flow rate / global percentage rate settings.

Menu



Enter the Temperature menu and set the temperature of the nozzle or bed



Enter the **Movement** menu for manual control of individual axes



Enter the **Extrude** menu for manual extrusion or fiber replacement



Emergency STOP of all activities. !!! Attention, after pressing this button, for further reliable operation of the printer, it is necessary to reset the printer with the button under the rotary LCD controller, or by switching the power off and on !!!



Access to the **Terminal**, for direct commands to the printer. **!!! ATTENTION, do not use the terminal if you do not know what you are doing, it is more of a service tool !!!**

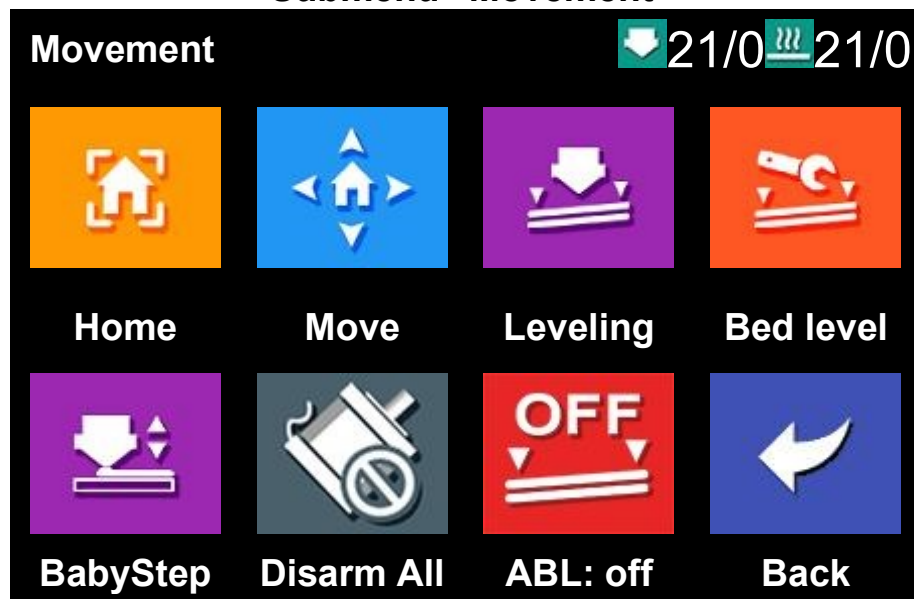


Enter the User Commands Menu. **!!! ATTENTION, do not use this menu if you do not know what you are doing, it is more of a service tool !!!!**



Enter the Printer Settings Menu. **!!! ATTENTION, do not use this menu if you do not know what you are doing, it is more of a service tool !!!**

Submenu "Movement"



Enter the menu for parking axes to home positions



Enter the menu of manual movements of the axes **Move**



Enter the leveling menu - **no need to control here, controlled by gcod !!!**



Enter the menu of manual washer alignment - **unused function !!!**



Enter the **BabyStep** menu to fine-tune the first layer

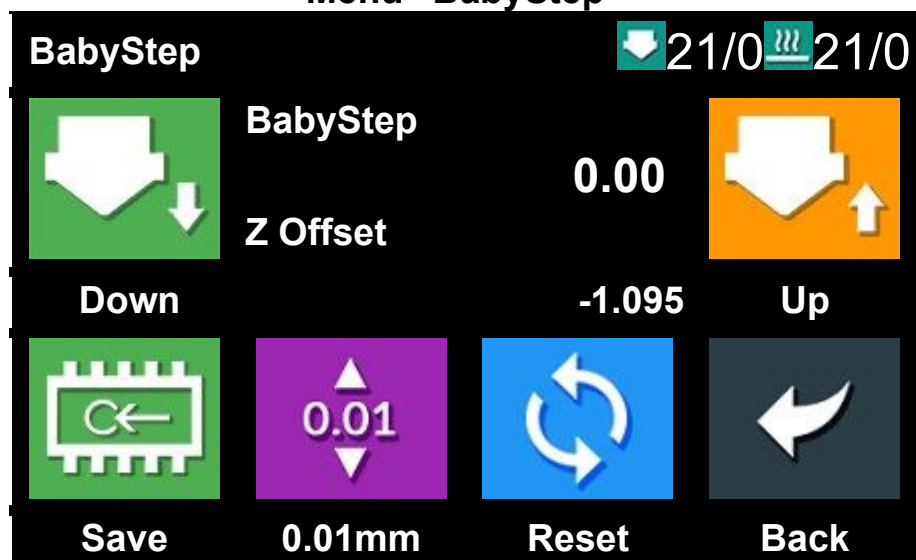


Disabling motor drivers



Switching leveling on and off - **no need to control here, controlled by gcod !!!**

Menu "BabyStep"



Decrease the print height by the selected height step (Z feed)



Increase the print height by the selected height step (Z feed)



Save settings

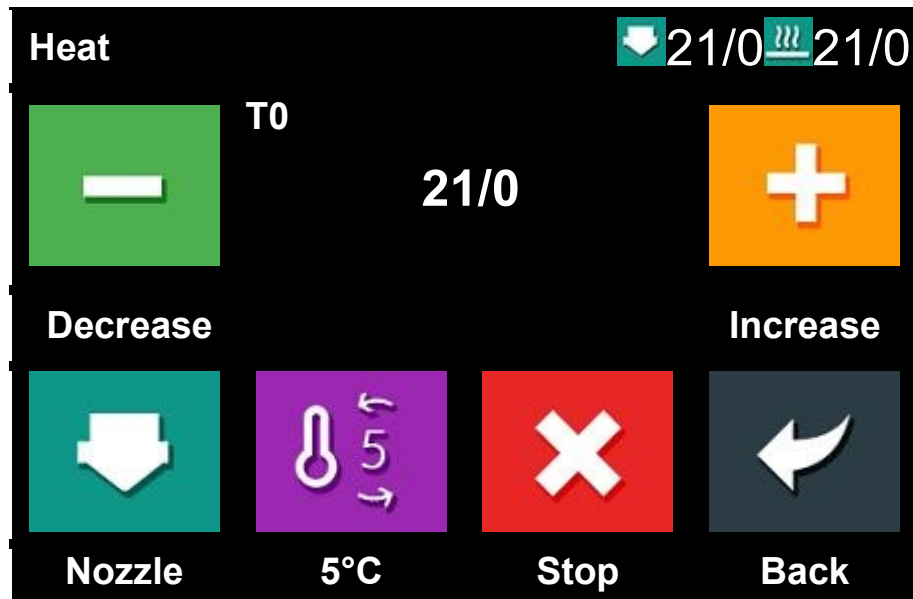


Selection of the feed step Z in steps of 0.01, 0.1 and 1 mm



Reset settings

Menu "Heat"



Buttons for setting the nozzle temperature in steps given by selecting the step below. In the same steps, the temperature can be set with the rotary knob on the LCD.



Press this button to switch to the pad temperature setting menu.



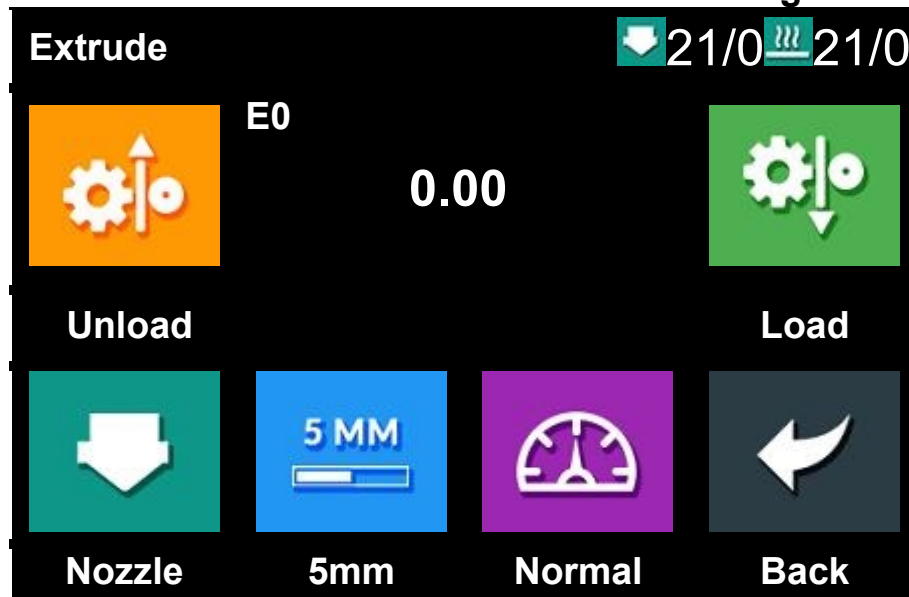
Selection of control step 1, 5 and 10°C



Immediate switch-off of the selected heating (nozzle / bed)

Temperature adjustment during normal printer operation is only required when replacing the filament. Print temperatures are set by automatically running gcode.

Menu for manual extrusion and filament exchange - Extrude



Buttons for ejecting and loading the filament in the steps given by the selection below. In the same steps, the filament can be moved with the rotary knob on the LCD..



Choice of filament feed step 1, 5, 10, 100 and 200mm

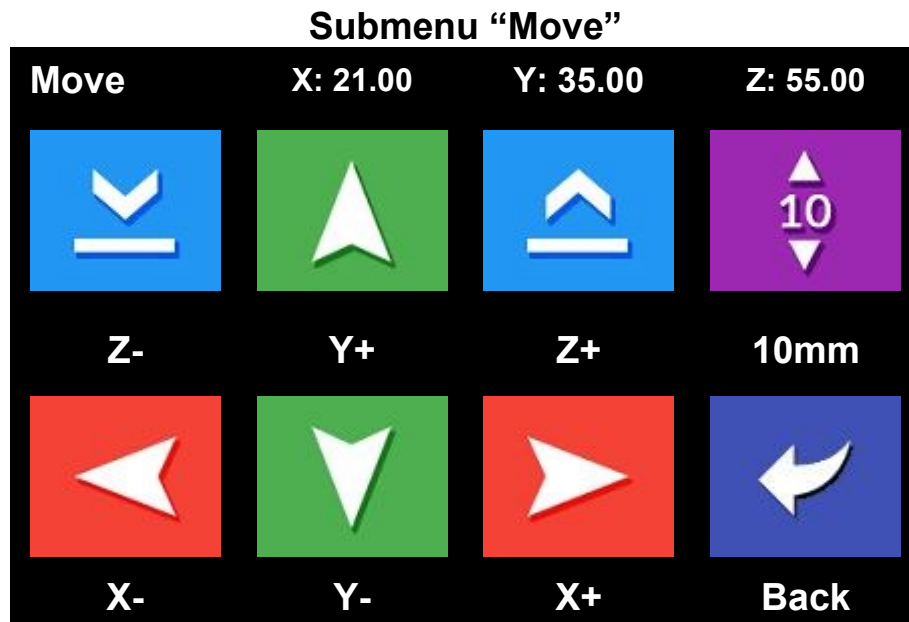


Feed rate selection Slow / Normal / Fast

To move the filament, it is necessary to have the temperature set to the melting temperature of the fiber, which you can do, for example, in the "Temperature" menu. Common nozzle temperatures are:

PLA -	200°C
ABS -	230°C
ASA -	230°C
PETG -	230°C
TPE/FLEX -	210°C

Temperatures for other materials Choose the standard printing recommended by the material manufacturer.



The menu is used to move the X / Y / Z axes manually. After pressing the axis feedrate shifts the distance given by the step setting, in this case by 10 mm.



Axis feed step selection 0.01, 0.1, 1, 10 and 100mm

Preparing to print

Turn on the printer for the first time

- Connect the printer to a 230V mains using the power cord.
- Check the **main switch** on the back and if it is not in position 1, turn it to position.
- After pressing the front operation switch, the start logo appears on the control LCD and then in the main menu. This starts the printer and prepares you to begin printing or other actions.

Note: The right light switch can be turned on or off. The light switch has no further effect on the operation of the printer.

Printing area

!!! If the bed is hot, always hold it only by the handles, otherwise burns may occur !!!

If any plastic remains on the substrate on the previous print, carefully remove it, preferably with a plastic spatula **!!! not with a sharp metal or a breaking knife !!!**
Always clean the pad with a paper towel or other dry non-greasy cloth before printing. Do not touch the pad unnecessarily with your hands and do not use anything other than IPA - isopropyl alcohol for degreasing. There is no need to degrease before each print, only if the prints stop sticking to the plate.

Note: The board is coated with PEI foil, which you should try to keep clean and free of grease. Do not use sharp and hard tools to remove the printout or material residues, as this could damage the surface of the PEI and cause poor adhesion of the printouts !!!!

Removing a printout

Always allow the pad to cool as much as possible after printing. **!!! If you try to remove the printout from the pad immediately after printing, the surface of the pad will be damaged !!!**

The temperature at which printing can be easily removed cannot be clearly determined depending on the type and manufacturer of the material. With PLA, the ideal temperature for removing printing is about 40 ° C, PETG and ABS about 50 ° C.
After cooling to the ideal temperature, gently bend the printing plate on both sides to release the print. If the print is still on the platen, help it with your hand, but do not use excessive force.

Inserting / removing / replacing the filament

all the above actions are performed using the menu for manual extrusion and filament exchange - **Extrude** on page 15. Here we summarize the basic steps:

1. set the appropriate temperature for handling the filament in the Nozzle temperature menu, for example for PLA - 200 ° C, for ABS, ASA and PETG - 230 ° C and for TPE / FLEX - 210 ° C
2. after heating, select in the menu **Extrude**

feed length **100mm** and click on the filament **Increase** icon



The filament starts to come out of the extruder and at the end help your hand to remove it completely.

3. When inserting, proceed in the opposite way to point 2. Insert the fiber with slight pressure

into the inlet of the filament extruder and click on the filament Decrease icon and wait for the material to start flowing out of the nozzle.



If changing to a different color, feed the filament until a material of the same color as the one being fed comes out of the nozzle.



Osvědčení o shodě
Konformitätsaussage
Statement of conformity
Číslo/Nr./No.:01102020/R

Potvrzuji tímto, že uvedený výrobek vyhovuje podmínkám níže uvedených předpisů a norem.

Hiermit wird bestätigt, dass das weiter angeführte Erzeugnis mit den unten angeführten Prüfunterlagen übereinstimmt.

I hereby certify that the product below mentioned meets the below mentioned requirements and standards.

Výrobce: READY REBEL 3D s.r.o., Sobáčov 103, 783 21 Sobáčov, ČR
Hersteller
Manufacturer

Výrobek: 3D tiskárna
Erzeugnis
Product description

Typ/Model: READY REBEL 1
Typ/Modell
Type/Model

Ověřeno dle: NV č. 118/2016 Sb., které je ekvivalentní SR č. 2014/35/EU, NV č. 117/2016 Sb., které je ekvivalentní SR č. 2014/30/EU, NV č. 176/2008 Sb. ve znění NV č. 170/2011 Sb. a 229/2012 Sb., které je ekvivalentní SR č. 2006/42/ES ve znění SR č. 2009/127/ES a 2012/32/EU, ČSN EN ISO 12100, ČSN EN 61010-1 ed. 2, ČSN EN 61000-6-3 ed. 2, ČSN EN 55014-1 ed. 4, ČSN EN ISO 13849-1
Geprüft nach
Tested according to

Závěrečná zpráva číslo: 01102020/R
Abschlussbericht Nr.
Final report No. **ze dne/vom/dated:** 16.10.2020

Dne: 16.10.2020
Ausgestellt am
Date of issue

Platnost do: odvolání
Gültig bis widerrufsgültig
Expiry date valid until recalled

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