



## Release Notes

<b>Release</b>	Bits from Bytes 3D printer firmware
<b>Products</b>	Bits from Bytes 3D printers: - 3D TOUCH - RapMan 3.2
<b>Hardware Compatibility</b>	PCB V3.4
<b>Firmware Version</b>	5.4.1
<b>Date</b>	19 October 2012

## Overview

This release contains a RapMan 3.2 firmware image so RapMan 3.2 owners can now print .bfb files generated with Axon 3. It also fixes a problem in V5.4.0 where the pre-print check can fail when printing .bfb files.

The following firmware image files are associated with this release:

- BFB 3D TOUCH V5-4-1.hex
- BFB RapMan 3-2 V5-4-1.hex

## Extruder Wipe Hardware Upgrade for 3D TOUCH

A new feature has been added to the firmware which improves the nose wipe procedure on the 3D TOUCH. This results in cleaner prints when multiple extruders are used during printing. The improvements can only be realised when this firmware is used in conjunction with a nose wipe hardware update kit. Nose wipe upgrade kits will be available from the BfB shop soon.

## Firmware Update

Instructions are provided in the Technical Resources Downloads area of the BFB website [www.bitsfrombytes.com](http://www.bitsfrombytes.com).





## V5.4.0 – V5.4.1 Changes Summary

- RapMan 3.2 firmware image so RapMan 3.2 owners can now print .bfbe files generated with Axon 3
- Bug fix where the pre-print check can fail when printing .bfb files

## V5.3.1 – V5.4.0 Changes Summary

- Add support for Axon 3 build files
- Slightly increase part cooling fans speed
- Allow to enter standby from splash screen in addition to main menu
- Zero all extruder RPMs when exiting manual extruder screen
- New nose wipe procedure
- Add nose wipe Y offset adjustment
- New file system
- Adjustments to pause resume prime parameters
- Bug fix long file names causing problems when the print file is selected
- Bug fix where after cancelling a print the carriage does not return to the rest location
- Bug fix which improves use of acceleration during printing

## V5.3.0 – V5.3.1 Changes Summary

- Bug fix where cancelling a print during the initial build file verification stage caused undefined printer operation. The printer begins to home and commence the print after the verification had completed in the background.
- Bug fix where the following sequence causes the printer to lock up:  
print file > pause print > cancel print > print file
- Bug fix to prevent initiation of hibernate from pause mode

## V5.2.0 – V5.3.0 Changes Summary

- Added build file verification functionality. When a build file is selected, the printer will first verify the contents of the build file before commencing the physical build. If errors are detected a message is displayed and the build is aborted. This has been added in order to detect corrupted build files which can occur in some rare situations during saving of data to the USB memory stick. An option to disable this feature is included in the printer settings screen.
- During printing the data contained within the build file is checked more stringently in order to detect errors, even if the verify functionality described above is disabled in the printer settings.
- Adjusted the temperature error 4 monitoring system in order to reduce false TE4 triggers.
- Increased the size of the touch areas for the main menu scroll left / right arrows.





- Bug fix where pausing a print, then cancelling the print can cause a false temperature error 3 when the next print is started.
- Bug fix where the power loss save state functionality could be triggered in error, resulting in the printer stopping and backlight turning off.
- Bug fix where the Z offset was not applied on the RapMan after homing.
- Bug fix where Z stepper motor is not disabled properly in some scenarios.
- Bug fix where extruder redirection works incorrectly when the build file utilises extruders that are not physically present on the printer.

## V5.1.0 – V5.2.0 Changes Summary

- Added power cut save print state function where the print state is saved to the USB memory stick in the event of a power cut. The print can be resumed when the printer is turned back on. (3D TOUCH feature only)
- Added hibernate function which allows the print state to be saved to a file on the USB memory stick and the printer turns off. The print can be resumed when the printer is turned back on.
- Added long filename support.
- Added extruder control screen shortcut method to set pre-determined extruder RPMs by repeatedly tapping the RPM value to set 40 RPM, 90 RPM, 0 RPM.
- User is not prompted to save settings when no settings changes have been made on extruder mapping, extruder offsets and general settings screens.
- Improved usability of several screens and menus by increasing active touch areas around display items.
- Changed power on function button press sequence so the printer turns on when the button is pressed, not released. Now the user simply holds the button until the display lights up instead of guessing how long to hold the button.
- Fix bug where Z stepper can remain powered after exiting from manual move screen.

## V5.0.0 – V5.1.0 Changes Summary

- Bug fix scenarios which can cause overheating of a hot end.
- Added extruder control screen shortcut method to set pre-determined extruder temperatures by repeatedly tapping the target temperature value to set 195C, 230C, 0C.
- Improved the usability of the level bed screen by slowing Z acceleration and maximum speed. Added a temperature check to prevent damaging the bed with a hot extruder tip. Bug fix to prevent lockup of display if the touch release is not over the up or down arrows.
- Improved usability of the print file selection menu by changing instruction text, centralising the file name text and increasing the active touch area.
- Improved the print menu to show a resume button for when the printer is paused. Removed pause and resume buttons from the basic print display.
- Added settings screen.





## Bits from Bytes

- Exiting manual extruder screen sets all extruders temperature to 0C.
- Firmware update operation confirms saving of settings to file.
- Bug fix where the basic print display shows the wrong temperature after an extruder change.
- Bug fix where hot extruders were not automatically detected when the system is turned on.
- Bug fix to hide data for extruders that are not connected to the system.
- Bug fix after the use of manual extruder screen to prevent extruder turning during heat up at the start of a print.

