



Quick User Guide

Please read this guide before using your saber equipped with a Golden Harvest v3 for the first time. It describes the menu navigation, but gives also important information on how to charge your saber properly for example.

Menu Navigation

The default menu navigation for a single momentary button is shown below. For alternative navigation layouts, please check the manual of the Golden Harvest v3 which can be found on <https://sabertec.net/downloads/>. The color changing features are only available for Hero sabers.

FUNCTION	TRIGGERING WITH ONE MOMENTARY SWITCH
POWER ON	Tap the button
ENTER EFFECT MENU	Hold the button, then hold it again
└ CHANGE ON TOP EFFECT*	└ Tap the button
└ CHANGE BACKGROUND EFFECT*	└ Twist the saber
SAVE AND LEAVE EFFECT MENU	Hold the button
CHANGE SOUND FONT*	Hold the button before igniting the blade
ENTER LOCKUP MODE	Hold the button, then tap it while pointing the saber upwards
LEAVE LOCKUP MODE	Tap the button
ENTER DRAG MODE	Hold the button, then tap it while pointing the saber downwards
LEAVE DRAG MODE	Tap the button
ENTER MELT MODE	Hold the power button, release it and then perform a stab
LEAVE MELT MODE	Tap the power button
BLASTER BLOCK	Tap the button
FORCE PUSH	Hold the button while twisting the saber
ENTER COLOR WHEEL	Hold the power button, release it and then twist the saber
└ CHANGE COLOR	└ Twist the saber
└ GO TO NEXT SABER STATE	└ Tap the power button
SAVE AND LEAVE COLOR WHEEL	Hold the power button
ACTIVATE POWER SAVING	Hold the power button while performing a stab
DEACTIVATE POWER SAVING	Hold the power button while performing a stab
START BACKGROUND MUSIC	Hold the button while twisting the saber before the saber is ignited
└ SKIP TRACK	└ Twist the saber
STOP BACKGROUND MUSIC	Hold the button while twisting the saber before the saber is ignited
SHOW BATTERY INDICATOR	Hold the power button while performing a stab before the saber is ignited
└ CALIBRATE BATTERY	└ When your battery is fully charged, perform a stab while battery level is displayed

ENTER VOLUME CONTROL	Twist the saber, then perform a stab before the saber is ignited
L ADJUST VOLUME	L Twist the saber
SAVE AND LEAVE VOLUME CONTROL	Tap the power button
WAKE UP FROM DEEP SLEEP	Tap the power button
POWER OFF	Hold the power button until the saber shuts down
RESET	Hold the power button for 10 s

*** When changing the On Top Effect, Background Effect or Sound Font, you can go to the next one by pointing your saber upwards during selection or to the previous one by pointing your saber downwards.**

Different Background Effects correspond to different colors in general. Thus, changing the Background Effect changes the color of your blade. In contrast to that, different On Top Effects correspond to different styles of the blade like flicker or pulse effects. Thus, changing the On Top Effect allows you to change the style of your blade without changing the color.

How to Charge Your Saber Properly

In the following, we'll describe how to charge your saber properly. To charge it, you can use any wall adapter with a micro USB connector. Just plug it into your saber and the charging starts. In general, make sure to turn your blade LEDs off before charging and keep them turned off during charging. Also never leave the saber unsupervised during charging. In the rare case that your battery has discharged *completely* (i.e. when the saber abruptly turns off and you cannot ignite your saber any more afterwards), make sure to wait for 5 minutes before you charge your saber to relax the battery. To avoid discharging the battery completely and to increase the lifetime of the battery, the Golden Harvest v3 automatically shuts down when the battery gets discharged to a dangerously low level and plays a battery warning sound.

Adding Sound Fonts

To add your own sound fonts to your saber, just access the microSD card via USB and open the folder "SoundFonts". After that, you will see a similar folder structure to the one shown below. The different sound fonts of your saber have their own folders called "sound[number]". To add one, just create a new folder and label it "sound[number]". Make sure to enumerate the new folder continuously. That means, when there are 14 sound fonts on your saber for example and you want to add one, just label it "sound15". Your saber supports all CFX sound fonts. However, make sure that there is a "font.wav" file. If it is missing, just copy another file from the sound font and label the copy "font.wav". The sound files need to have a resolution of 16 bit and a sampling rate of 22,050 Hz or 44,100 Hz.

You can also add music tracks to any of your sound fonts. Just name the corresponding file "track[number]" and add it to the sound font to which you want it to be assigned to. Make sure to start enumerating the track files from 1. For more information on sound fonts and sound files in general, please check the manual. It can be found on <https://sabertec.net/downloads/>.

sound1	02.04.2020 21:20	Dateiordner	
sound2	02.04.2020 21:20	Dateiordner	
sound3	30.03.2020 19:03	Dateiordner	
sound4	02.04.2020 21:21	Dateiordner	
sound5	04.04.2020 17:43	Dateiordner	
sound6	23.03.2020 13:13	Dateiordner	
sound7	26.03.2020 00:55	Dateiordner	
sound8	04.04.2020 17:48	Dateiordner	
sound9	04.04.2020 17:49	Dateiordner	
sound10	30.03.2020 19:25	Dateiordner	
sound11	30.03.2020 19:27	Dateiordner	
sound12	23.03.2020 13:13	Dateiordner	
sound13	30.03.2020 19:07	Dateiordner	
sound14	16.05.2020 16:01	Dateiordner	
SoundFonts	16.05.2020 16:03	Textdokument	3 KB

Deep Sleep

The Golden Harvest v3 has a deep sleep feature for power saving. If your saber was not used for 5 minutes, it will enter deep sleep mode in which the power consumption of the board is drastically reduced. This allows you to store the saber for a long time without draining the battery completely. The time after which the Golden Harvest v3 enters deep sleep can be customized. Please check the manual for more information. It can be found on <https://sabertec.net/downloads/>.

USB File Transfer

The Golden Harvest v3 supports USB file transfer using the Seedling module. It allows you to access the microSD card without needing to pull it out of your board. To enter the mass storage device mode, connect your saber via USB to your computer when it is in idle mode. That's the state the saber is in before igniting the blade (you may have to wake it up from deep sleep first). Please do not try to connect your saber to USB while the blade LEDs are turned on. When connecting the saber to your computer for the first time, it can take several minutes until your computer recognizes the microSD card as mass storage device as it will install the driver. The USB file transfer is currently supported on Windows 7 and Windows 10.

Firmware Updates

The set of features of the Golden Harvest v3 is always expanding. It can be extended by firmware updates which are easy to install without requiring any coding skills. **Before connecting it to your computer to install the firmware update, make sure to fully charge it.** Also, it is important that your blade is not ignited when connecting your saber to your computer. To install it via USB, just do the following:

1. Connect your saber via USB to your computer while the saber is in idle mode. That's the state the saber is in before igniting the blade (you may have to wake it up from deep sleep first).
2. Wait until your computer detects your saber as mass storage device.
3. Check if there are "slot[number]" folders contained in the "EffectFonts" folder on your saber. If yes, proceed with step 7. If no, proceed with step 4.
4. Delete the EffectFonts folder and the UserInterfaceSounds folder from your saber. Do **not** delete the SoundFonts folder and the "general.txt" file.

5. Download the new default files, unzip them and add them to the microSD card:
<https://sabertec.net/wp-content/uploads/2020/10/Default-Package.zip>
6. Open the "general.txt" file with a text editor and add the new parameters that are introduced by the firmware update. For a list of the parameters that need to be added, see the section below.
7. Delete the file "UPDATE_D.DAT" from your saber (if this file is present).
8. Download the firmware update and put the "update.dat" file on your saber:
https://sabertec.net/wp-content/uploads/2020/10/APP_17_10-14_44.zip
9. Unplug the USB connection to your computer. Now, it takes approximately 10 - 20 s before the update is finished. If the boot sound is played after this time, the update was successful.

New parameters

In the following, we list all new parameters that need to be added to the "general.txt" file:

```
stab_ignition=0  
swing_ignition=0
```

```
twist_retraction=0  
twist_protection=1500
```

```
color_wheel=2  
color_wheel_tilt_speed=100  
color_wheel_twist_speed=100
```

```
volume_control=2  
volume_control_tilt_speed=100  
volume_control_twist_speed=200
```

```
effect_font_slot=3
```

Just copy and paste these new parameters to the "general.txt" file. Place them between the parameters `blade_double_tap` and `orientation`. The screenshot below illustrates that.

```
blade_double_tap=1  
  
stab_ignition=0  
swing_ignition=0  
  
twist_retraction=0  
twist_protection=1500  
  
color_wheel=2  
color_wheel_tilt_speed=100  
color_wheel_twist_speed=100  
  
volume_control=2  
volume_control_tilt_speed=100  
volume_control_twist_speed=200  
  
effect_font_slot=3  
  
orientation=0
```

Set the parameter `effect_font_slot` to 1 if you have a Champion saber, set it to 5 if you have a Hero saber with In-Hilt LED and set it to 8 if you have a Hero saber with Neopixel. Please make sure that there is no space between the symbol "=" and the value of the parameter.

Frequently Asked Questions

- There is no sound or stuttering sound. How can I fix that?
Answer: Please charge your saber. Follow the guidelines described in the section "How to Charge Your Saber Properly".
- Some sound files are not played or some sound fonts are not recognized. How can I fix that?
Answer: Please check that your sound font folders and the sound file names are enumerated continuously and check the naming of the sound files. These are described in the manual of the board. Furthermore, make sure that there is a "font.wav" file in all sound fonts.
- The saber is connected to my computer, but even after 10 minutes it does not recognize the microSD card as mass storage device. How can I fix that?
Answer: Please check the device manager, look for an "unknown device", click on it with the right mouse button and uninstall the "unknown device". After that, you can try to reconnect the saber to your computer. Also make sure that you are using a computer with Windows 7 or Windows 10. If you still cannot access your saber via USB, make sure to fully charge it using a wall adapter and then connect it to your computer again. Then, hold the power button for 10 s.
- The blade is blinking. How can I fix that?
Answer: This indicates that there is a problem with the SD card or with the files on it. Either it needs to be rebooted, there are erroneous files on it or it is dislocated. Try to connect it to your computer and check the files.