



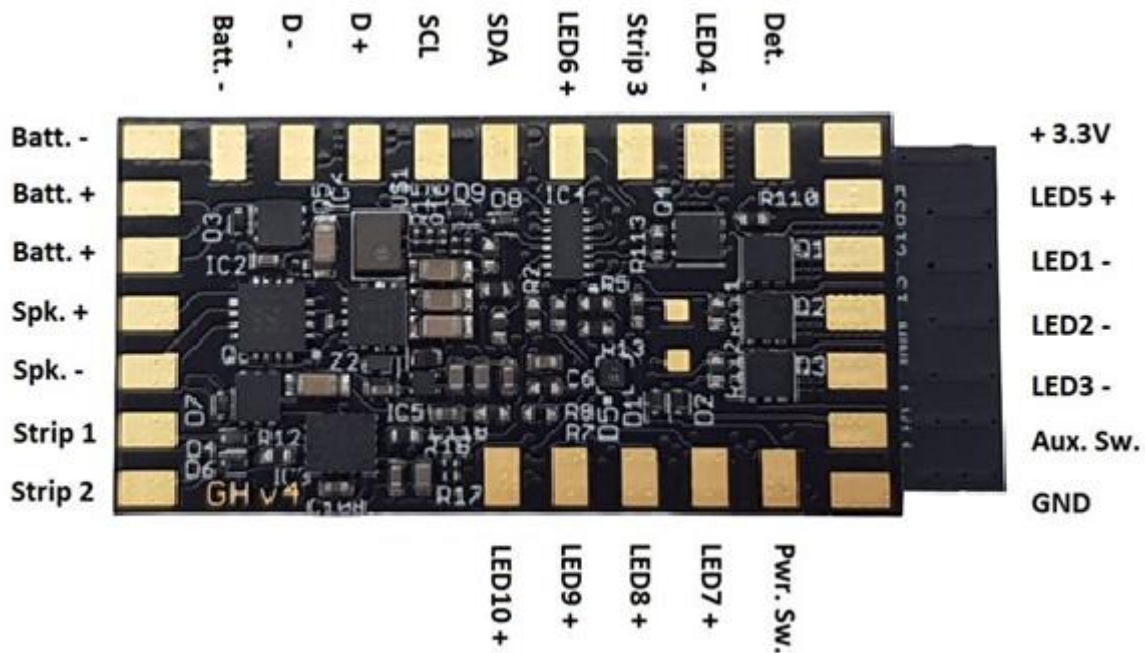
Quick Setup Guide

This guide provides the most essential information for setting up your Golden Harvest v4, offering a simpler overview than the full manual. For detailed instructions and advanced configurations, please refer to the complete manual.

Wiring Diagrams

The picture below shows the pads of the GHv4, whose functions are specified in the table. To create wiring diagrams tailored to your specific setup, you can use our online tool:

<https://sabertec.net/wiring-diagram-creator/>



Pad	Function	Remark
Batt. -	Connect to negative of battery	Two identical pads that are internally connected
Batt. +	Connect to positive of battery	Two identical pads that are internally connected
Spk. -	Connect to negative of speaker	
Spk. +	Connect to positive of speaker	
Strip 1	Connect to data line of the Neopixel blade	Resistor is already included on the board
Strip 2	Connect to data line of the Neopixel accent LEDs	Resistor is already included on the board
Strip 3	Connect to data line of the Neopixel side blade	Resistor is already included on the board

D +	Connect to D + of the USB-C module	
D -	Connect to D - of the USB-C module	
SCL	Connect to SCL of an OLED display	
SDA	Connect to SDA of an OLED display	
Det.	Connect to Det. of the USB-C module	
+ 3.3V	Constant 3.3V output	Disabled while in deep sleep, can be used to power an OLED display for example
Aux. Sw.	Connect to auxiliary switch (must be momentary if used)	Second pin of the switch needs to be connected to GND
GND	Ground	
Pwr. Sw.	Connect to power switch (must be momentary)	Second pin of the switch needs to be connected to GND
LED1 -	High-power LED output (4,2 V and 9 A)	
LED2 -	High-power LED output (4,2 V and 9 A)	
LED3 -	High-power LED output (4,2 V and 9 A)	
LED4 -	High-power LED output (4,2 V and 9 A)	
LED5 +	Accent LED output (3,3V and 20 mA)	
LED6 +	Accent LED output (3,3V and 20 mA)	
LED7 +	Accent LED output (3,3V and 20 mA)	
LED8 +	Accent LED output (3,3V and 20 mA)	
LED9 +	Accent LED output (3,3V and 20 mA)	
LED10 +	Accent LED output (3,3V and 20 mA)	

To set up the Golden Harvest v4 for your saber, follow these instructions to choose your hardware setup and configure your light effects.

Setting Up Your Board

Choosing Your Hardware Setup

Customize your hardware setup by editing the "general.txt" file on your microSD card. You can do this with any standard text editor or the Golden Harvest Commander, a web app that allows you to edit files via WiFi (see the "WiFi Connectivity" section in the manual). To configure your board, you only need to adjust three key parameters, as described below.

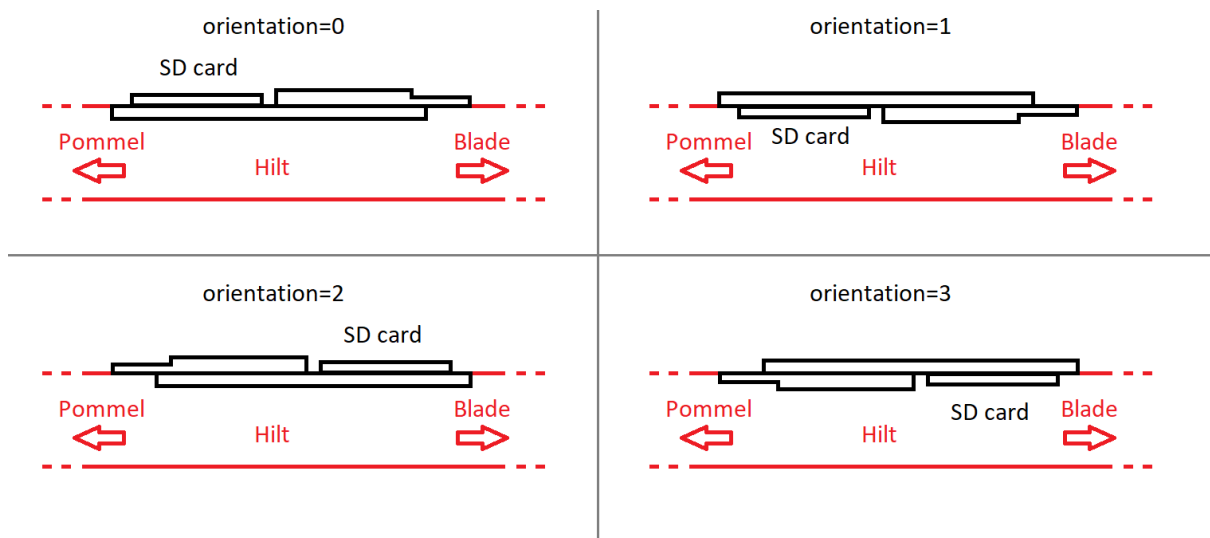
If an "override-general.txt" file is also present, it will take precedence over the "general.txt" values. Therefore, make sure to apply any changes to both files to ensure your configuration is correctly applied.

PARAMETER	DESCRIPTION
button_mode	Defines which button mode you want to use. The following modes are available: <ul style="list-style-type: none"> button_mode=4: single momentary switch button_mode=2: two momentary switches
orientation	Sets the orientation of the board in the saber for proper function of orientation-based features. The different orientations are illustrated in the picture below.

- **orientation=0:** The SD card is on top, and the LED pads (1-3) point towards the blade.
- **orientation=1:** The SD card is on the bottom, and the LED pads (1-3) point towards the blade.
- **orientation=2:** The SD card is on top, and the LED pads (1-3) point towards the pommel.
- **orientation=3:** The SD card is on the bottom, and the LED pads (1-3) point towards the pommel.

number_of_leds

Specifies the number of pixels in a Neopixel blade. If unsure, check with the blade manufacturer or use the pixel number edit mode in the Saber Editor for visual feedback. Typically, this number ranges from 110 to 135 and is internally capped at 144.



While there are many other customizable parameters in the "general.txt" file, only these three are necessary to set up your Golden Harvest v4 for your hardware. The "button_mode" and "orientation" parameters must be edited directly in the "general.txt" and "override-general.txt" files. However, the "number_of_leds" parameter can also be adjusted on the fly using the Saber Editor.

Choosing Your Light Effects

Customize your light effects by adjusting the "effect_font_slot" parameter in the "general.txt" file on your microSD card. The image below shows the values corresponding to different LED setups. For Neopixel setups, three default packages are available, each varying in the number of included presets.

slot1 - In-Hilt Dedicated Color	10.08.2020 21:05	Dateiordner
slot2 - In-Hilt Dedicated Color plus Clash...	11.07.2020 16:25	Dateiordner
slot3 - In-Hilt RGB LED with Colored Clash	20.08.2020 12:25	Dateiordner
slot4 - In-Hilt RGB LED with White Clash	21.08.2020 11:44	Dateiordner
slot5 - In-Hilt RGBA	21.08.2020 11:34	Dateiordner
slot6 - In-Hilt RGBW	21.08.2020 11:52	Dateiordner
slot7 - Neopixel Basic	21.08.2020 11:25	Dateiordner
slot8 - Neopixel Default	23.08.2020 13:30	Dateiordner
slot9 - Neopixel Extended	23.08.2020 13:31	Dateiordner
slot10 - Custom	11.07.2020 16:29	Dateiordner

You can also change the effect font slot dynamically using the Saber Editor, providing a flexible way to experiment with and adjust light effects.

Note: If you have a Neopixel saber but select an effect font slot intended for an in-hilt saber, the blade will not light up. Similarly, if you select a Neopixel effect font slot for an in-hilt saber, the in-hilt LED will remain fixed in color with no effects.

Navigation Using Two Momentary Buttons

In this setup, the two buttons are referred to as the auxiliary button and the power button. To enable this button configuration, set the parameter "button_mode=2" in the "general.txt" file on your microSD card.

FUNCTION	TRIGGERING WITH TWO BUTTONS
Power On	Tap the power button
Change Color Profile*	Tap the power button while holding the auxiliary button
Enter Effect Menu	Hold the power button, then hold it again. Point the saber upwards while doing this.
└ Change Blade Profile*	Slowly twist the saber
└ Change On Top Effect*	Tap the auxiliary button
└ Save And Leave	Hold the power button until the confirmation sound is played
Enter Accent Menu	Hold the power button, then hold it again. Point the saber downwards while doing this.
└ Change Ignited Accent Profile*	Tap the power button
└ Go To Ignited Accent Profile	Hold the power button
└ Change Standby Accent Profile*	Tap the power button
└ Save And Leave	Hold the power button until the confirmation sound is played
Enter Color Change Menu	Hold the power button, then tap it. Point the saber upwards while doing this.
└ Cycle Through Preset Color Profiles	Slowly twist the saber
└ Save And Leave	Hold the power button
Enter Lockup Mode	Hold the auxiliary button, then tap it. Point the saber upwards while doing this.
└ Leave Lockup Mode	Tap the auxiliary button
Enter Drag Mode	Hold the auxiliary button, then tap it. Point the saber downwards while doing this.
└ Leave Drag Mode	Tap the auxiliary 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 auxiliary button
Force Push	Hold the auxiliary button while swinging the saber
Activate Power Saving	Hold the power button while performing a stab
Deactivate Power Saving	Hold the power button while performing a stab
Power Off	Hold the power button until the saber shuts down
Enter Sound Font Menu	Hold the auxiliary button before the blade is ignited. Point the saber upwards while doing this.
└ Go To Next Sound Font*	Slowly twist the saber
└ Jump 10 Sound Fonts Further*	Tap the power button
└ Save And Leave Sound Font	Hold the auxiliary button
Menu	
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	Hold the auxiliary button before the blade is ignited. Point the saber downwards while doing this.
└ Adjust Volume	Slowly twist the saber
└ Save And Leave Volume Control	Tap the power button
Start Background Music	Hold the power button before the saber is ignited, then release it. Point the saber upwards while doing this.
└ Skip Track	Tap the auxiliary button
└ Stop Background Music	Hold the power button before the saber is ignited, then release it
Enter Saber Editor	Hold the power button before the saber is ignited, then release it. Point the saber downwards while doing this.
└ Select Editor Mode	Tap the power button
└ Color Profile	
└ Select Color Profile	Slowly twist the saber
└ Edit Color	Slowly twist the saber
└ Go To Next Saber State	Tap the power button
└ Revert Colors To Default	Perform a stab
└ Save Color Profile	Hold the power button
└ Confirm Selection	Tap the power button
└ Save and Leave Editor Mode	Hold the power button
└ Pixel Number	
└ Edit Pixel Number	Slowly twist the saber
└ Save and Leave Editor Mode	Hold the power button
└ Ignition Speed	
└ Select Sound Font	Slowly twist the saber
└ Edit Ignition Speed	Slowly twist the saber
└ Save Ignition Speed	Hold the power button
└ Confirm Selection	Tap the power button
└ Save and Leave Editor Mode	Hold the power button
└ Retraction Speed	
└ Select Sound Font	Slowly twist the saber
└ Edit Retraction Speed	Slowly twist the saber
└ Save Retraction Speed	Hold the power button
└ Confirm Selection	Tap the power button
└ Save and Leave Editor Mode	Hold the power button
└ Ignition Type	
└ Select Blade Style	Slowly twist the saber
└ Edit Ignition Type	Slowly twist the saber
└ Save Ignition Type	Hold the power button
└ Confirm Selection	Tap the power button
└ Save and Leave Editor Mode	Hold the power button
└ Retraction Type	
└ Select Blade Style	Slowly twist the saber
└ Edit Retraction Type	Slowly twist the saber
└ Save Retraction Type	Hold the power button
└ Confirm Selection	Tap the power button
└ Save and Leave Editor Mode	Hold the power button
└ Battle Configuration	

└ Blaster Block Mode	Tap the power button
└ Button and Swinging	Slowly twist the saber clockwise
└ Button	Slowly twist the saber counterclockwise
└ Force Push Mode	Tap the power button
└ Button and Swinging	Slowly twist the saber clockwise
└ Button	Slowly twist the saber counterclockwise
└ Lockup Mode	Tap the power button
└ Button and Clashing	Slowly twist the saber clockwise
└ Button	Slowly twist the saber counterclockwise
└ Save and Leave Editor Mode	Hold the power button
└ Gesture Controls	
└ Stab Ignition	Tap the power button
└ Turn stab ignition on	Slowly twist the saber clockwise
└ Turn stab ignition off	Slowly twist the saber counterclockwise
└ Twist Ignition	Tap the power button
└ Turn twist ignition on	Slowly twist the saber clockwise
└ Turn twist ignition off	Slowly twist the saber counterclockwise
└ Swing Ignition	Tap the power button
└ Turn swing ignition on	Slowly twist the saber clockwise
└ Turn swing ignition off	Slowly twist the saber counterclockwise
└ Twist Retraction	Tap the power button Tap the power button
└ Turn twist retraction on	Slowly twist the saber clockwise
└ Turn twist retraction off	Slowly twist the saber counterclockwise
└ Go To Next Gesture Control	Tap the power button
└ Save and Leave Editor Mode	Hold the power button
└ WiFi Setup	
└ Select WiFi mode	Slowly twist the saber
└ Confirm Selection	Hold the power button
└ Bluetooth Setup	
└ Turn Bluetooth on	Slowly twist the saber clockwise
└ Turn Bluetooth off	Slowly twist the saber counterclockwise
└ Confirm Selection	Hold the power button
└ Hilt Calibration	
└ Effect Font Slot	
└ Select effect font slot	Slowly twist the saber
└ Save and Leave Editor Mode	Hold the power button
└ Save And Leave Saber Editor	
└ Confirm Selection	Hold the power button
Wake Up From Deep Sleep	Tap the power button
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.**

Navigation Using One Momentary Button

All features of the board can be accessed using just a single momentary button. To select this button configuration, set the parameter "button_mode=4" in the "general.txt" file on your microSD card.

FUNCTION	TRIGGERING WITH ONE MOMENTARY SWITCH
Power On	Tap the button
Enter Effect Menu	Hold the button, then hold it again. Point the saber upwards while doing this.
└ Change Blade Profile*	Slowly twist the saber
└ Change On Top Effect*	Tap the button
└ Save And Leave	Hold the button until the confirmation sound is played
Enter Accent Menu	Hold the button, then hold it again. Point the saber downwards while doing this.
└ Change Standby Accent Profile*	Tap the button
└ Enter Ignited Accent Submenu	Hold the button for 1 s
└ Change Ignited Accent Profile*	Tap the button
└ Save And Leave	Hold the button until the confirmation sound is played
Enter Color Change Menu	Hold the button, then tap it. Point the saber upwards while doing this.
└ Cycle Through Preset Color Profiles	Slowly twist the saber
└ Save And Leave	Hold the button
Enter Lockup Mode	Hold the button, release it and then twist the saber. Point the saber upwards while doing this.
└ Leave Lockup Mode	Tap the button
Enter Drag Mode	Hold the button, release it and then twist the saber. Point the saber downwards while doing this.
└ 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 swinging the saber
Activate Power Saving	Hold the power button while performing a stab
Deactivate Power Saving	Hold the power button while performing a stab
Power Off	Hold the power button until the saber shuts down
Enter Sound Font Menu	Hold the button before the blade is ignited, then release it. Point the saber upwards while doing this.
└ Go To Next Sound Font*	Slowly twist the saber
└ Jump 10 Sound Fonts Further*	Tap the button
└ Save And Leave Sound Font	Hold the button
Menu	
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	Hold the button before the blade is ignited, then release it. Point the saber downwards while doing this.
└ Adjust Volume	Slowly twist the saber
└ Save And Leave Volume Control	Tap the power button
Start Background Music	Hold the button while twisting the saber before the saber is ignited. Point the saber upwards while doing this.
└ Skip Track	Quickly twist the saber
└ Stop Background Music	Hold the button while twisting the saber before the saber is ignited
Enter Saber Editor	Hold the button while twisting the saber before the saber

	is ignited. Point the saber downwards while doing this.
└ Select Editor Mode	Tap the button
└ Color Profile	
└ Select Color Profile	Slowly twist the saber
└ Edit Color	Slowly twist the saber
└ Go To Next Saber State	Tap the button
└ Revert Colors To Default	Perform a stab
└ Save Color Profile	Hold the button
└ Confirm Selection	Tap the button
└ Save and Leave Editor Mode	Hold the button
└ Pixel Number	
└ Edit Pixel Number	Slowly twist the saber
└ Save and Leave Editor Mode	Hold the button
└ Ignition Speed	
└ Select Sound Font	Slowly twist the saber
└ Edit Ignition Speed	Slowly twist the saber
└ Save Ignition Speed	Hold the button
└ Confirm Selection	Tap the button
└ Save and Leave Editor Mode	Hold the button
└ Retraction Speed	
└ Select Sound Font	Slowly twist the saber
└ Edit Retraction Speed	Slowly twist the saber
└ Save Retraction Speed	Hold the button
└ Confirm Selection	Tap the button
└ Save and Leave Editor Mode	Hold the button
└ Ignition Type	
└ Select Blade Style	Slowly twist the saber
└ Edit Ignition Type	Slowly twist the saber
└ Save Ignition Type	Hold the button
└ Confirm Selection	Tap the button
└ Save and Leave Editor Mode	Hold the button
└ Retraction Type	
└ Select Blade Style	Slowly twist the saber
└ Edit Retraction Type	Slowly twist the saber
└ Save Retraction Type	Hold the button
└ Confirm Selection	Tap the button
└ Save and Leave Editor Mode	Hold the button
└ Battle Configuration	
└ Blaster Block Mode	
└ Button and Swinging	Slowly twist the saber clockwise
└ Button	Slowly twist the saber counterclockwise
└ Force Push Mode	
└ Button and Swinging	Slowly twist the saber clockwise
└ Button	Slowly twist the saber counterclockwise
└ Lockup Mode	
└ Button and Clashing	Slowly twist the saber clockwise
└ Button	Slowly twist the saber counterclockwise
└ Save and Leave Editor Mode	Hold the power button
└ Gesture Controls	
└ Stab Ignition	
└ Turn stab ignition on	Slowly twist the saber clockwise

L Turn stab ignition off	Slowly twist the saber counterclockwise
L Twist Ignition	
L Turn twist ignition on	Slowly twist the saber clockwise
L Turn twist ignition off	Slowly twist the saber counterclockwise
L Swing Ignition	
L Turn swing ignition on	Slowly twist the saber clockwise
L Turn swing ignition off	Slowly twist the saber counterclockwise
L Twist Retraction	
L Turn twist retraction on	Slowly twist the saber clockwise
L Turn twist retraction off	Slowly twist the saber counterclockwise
L Go To Next Gesture Control	Tap the power button
L Save and Leave Editor Mode	Hold the power button
L WiFi Setup	
L Select WiFi mode	Slowly twist the saber
L Confirm Selection	Hold the button
L Bluetooth Setup	
L Turn Bluetooth on	Slowly twist the saber clockwise
L Turn Bluetooth off	Slowly twist the saber counterclockwise
L Confirm Selection	Hold the button
L Hilt Calibration	
L Effect Font Slot	
L Select effect font slot	Slowly twist the saber
L Save and Leave Editor Mode	Hold the button
L Save And Leave Saber Editor	
L Confirm Selection	Hold the button
Wake Up From Deep Sleep	Tap the button
Reset	Hold the 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.**

Frequently Asked Questions

- There are no blaster or lockup effects in my Neopixel setup. How can I fix this?
Answer: This is usually caused by the board not being setup for Neopixel light effects on your microSD card. Please follow the instructions in the "Choosing Your Light Effects" section.
- The board plays a sound indicating a missing SD card, even though the SD card is inserted. What should I do?
Answer: Try reinserting the SD card. If the issue persists, reformat the card and reload the default files.
- The onboard LED, accent LEDs, or my blade is blinking. What does this mean?
Answer: Blinking indicates the microSD card is not inserted properly, or files/folders are missing. Try reinserting the card. If the problem continues, reformat and reload the default files.
- There is no sound or the sound is stuttering. How can I fix this?
Answer: Recharge your saber, as this issue often occurs when the battery is low.

- The speaker is crackling. What should I do?
Answer: Lower the volume, either in the "general.txt" file or using the Volume Control feature on the fly.
- Some sound files are not played, or some sound fonts are not recognized. How can I fix this?
Answer: Ensure that sound font folders and file names are numbered continuously and correctly. Refer to the manual for the correct naming conventions of each sound file.
- My computer does not recognize the microSD card as a mass storage device after connecting the Seedling v2 USB-C Module. What can I do?
Answer: Check the Device Manager for an "unknown device." Right-click on it and select "Uninstall device." Then reconnect the Seedling v2 USB-C Module. Ensure you are using Windows 10 or later.