

OB-1 SABERS

XENOPIXEL

V3

INSTRUCTION MANUAL



BUTTON CONTROLS:

Press and hold the power button for two seconds until you hear a power on notification. LED ring will light up.

Tap the button to activate the blade.

Controls while the blade is on:

- Blaster effect will activate with a quick button tap or striking the blade (flash on clash).
- Press and hold the button for 1 flash, then release. This will initiate the drag effect. A quick press will end the drag effect.
- Press and hold the button for 2 flashes, then release. This will initiate the color cycle. When the color you want shows, a quick press will end the color cycle.
- Continue to hold the button past 2 flashes to turn off the blade.

Controls while the blade is off:

Press and hold the button for 1 flash then release to change the volume. There are three volume settings: Volume High, Volume Low, and Mute.

Press and hold the button for 2 flashes then release to change the blade effect. There are 6 blade effects: Steady, Pulse, Rainbow Blade, Unstable, Cracked Blade and Fire Blade.

Press and hold the button for 3 flashes then release to change the blade mode. There are several blade modes, including Some pre-on effects. Blade effects will affect pre-ons but will not have any effect on Blaster Blade and Ghost Blade modes. Only blade color and font selection impact these modes.

Press and hold for 4 flashes to cycle flash on clash on/off.

Pres and hold for 5 flashes to cycle gesture control on/off.

Press and hold the button for 6 flashes, then release. This will change the sound font. The selection of fonts can be customized by the user.

Press and hold for 10 seconds to power down the saber.

GESTURE CONTROLS

There are several motion or manual controls available on the Xenopixel V3. These are based on control settings in the config.ini file:

- A direct and quick stabbing motion with the hilt level will turn the blade on. A stab will not turn the blade off by default, this can be changed.
- A quick counter clockwise twist while the hilt is pointed down will change the font to the previous on the list.
- A quick clockwise twist while the blade is pointed down will activate the blade.
- A quick counter clockwise twist while the blade is pointed up will activate the blade.
- A quick clockwise twist while the hilt is pointed up will play a music track, if one or more are available in the selected fonts folder. A quick twist again will stop the music.
- Hold the button and impact the hilt/blade to activate lockup. Release the button to end lockup.
- While holding the button, a quick twist while the hilt is pointed down will change the selected blade color. Release the button to select the current color.
- While holding the button, a quick twist while the hilt is pointed up will play a special effect. This will also play a sound if the correct file is included in the font.

FIRMWARE UPDATE

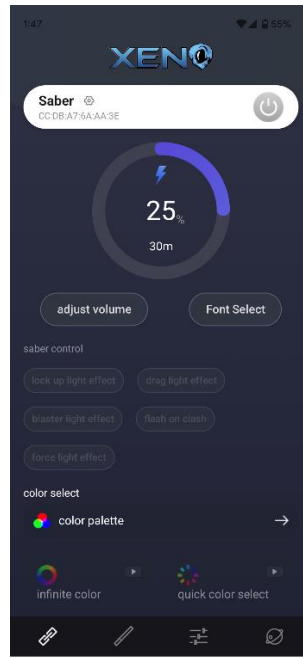
This version of the Xeno soundboard comes with an accompanying app to wirelessly connect to the saber and make changes on the fly. Firmware updates are also completed this way.

App Screenshots

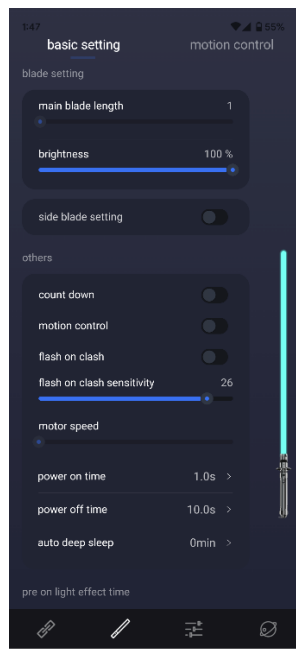
Launch screen. This is the icon when searching for the app on your device.



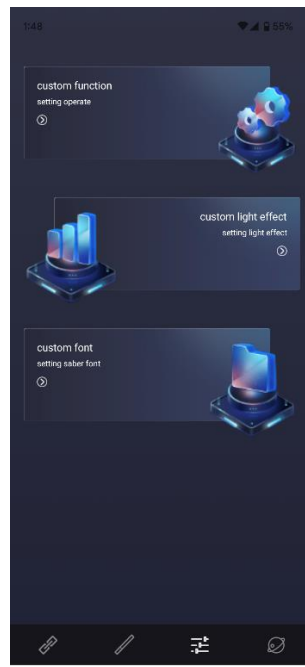
Main screen to adjust control features of the saber.



Settings screen for blade features.



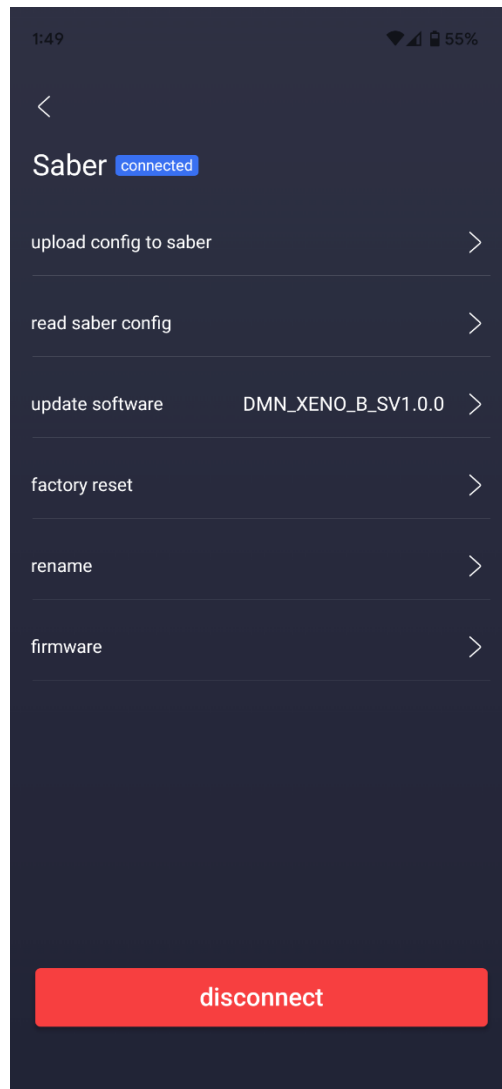
Features not yet available.



My Saber screen. Tap for details.



Saber details screen for completing updates or changes.



UNDERSTANDING THE config.ini FILE

The SD card contents now have a *settings* folder instead of a *set* folder. There have been some minor changes to the main config file, covered here, but still very similar to the V2.

Pixel numbers for common blade lengths are as follows:

40" / 102cm – 146

36" / 92cm – 132

32" / 82cm – 118

28" / 72cm – 104

16" / 41cm – 58
7" / 18cm - 25

This is the config file:

#BEFORE YOU CHANGE THE DATA BELOW, PLEASE SAVE THE ORIGINAL DATA FIRST TO AVOID BUGS, LOSS OF DATA OR GLITCHES. THIS IS VERY IMPORTANT. IF YOU FIND ANY ERRORS OR BUGS, PLEASE CONTACT YOUR VENDOR DIRECTLY

#CONFIG CREATED DATA
created=Mar 16 2023 19:08:00

#PIXEL AND RGB SWITCH,1 MEANS PIXEL, 0 MEANS RGB
software_of_pixel_or_rgb=1 – there is an LED adapter available for neopixel sabers for RGB blade use.

#MAIN BLADE LENGTH(DEFAULT 92CM BLADE IS 132,IF 82CM BLADE IS USED YOU WILL NEED TO MAKE MAIN BLADE LED NUMBER LESS TO SEE DRAG LIGHT EFFECT)
main_blade_pixel_led_number=132 – sets the length of blade, see above for measurements. This is important for melt effects to show properly at the tip of the blade.

#SIDE BLADE LENGTH (THIS FOR CROSS GUARD AND DOUBLE BLADE SABER CORES) DEFAULT IS 132, WHICH WILL NEED TO BE CHANGED BASED ON ACTUAL BLADE LENGTH/PIXEL COUNT
side_blade_pixel_led_number=132 – sets the length of cross guard and dual sabers.

#SIDE BLADE DELAY TIME(MS) (THIS FOR CROSS GUARD AND DOUBLE BLADE SABER CORES) DEFAULT 1000
side_blade_delay_time=200 – sets a delay for additional blade ignition.

#0-100% MAX VOLUME FOR BOARD - 100 IS DEFAULT - ANY HIGHER MAY DAMAGE SPEAKER AND VOID WARRANTY!
volume=100

#MAX=100 BRIGHTNESS OF BLADE. DEFAULT IS MAX - 100%
dimming=100

#FLASH ON CLASH CONTROL ON,0 MEANS OFF,1 MEANS ON
flash_on_clash=1

#ADJUST THE SENSITIVITY OF CLASH, LOWER NUMBER MEANS EASIER TO ACTIVATE CLASH. DEFAULT IS 4.5
clash_sensitivity=4.5

#ADJUST DEEP SLEEP TIME(MS) DEFAULTS ARE ON 1000, OFF 10000
power_on_time=1000
power_off_time=10000

#MOTION CONTROL ON,0 MEANS OFF,1 MEANS ON
motion_control=1 – turns gesture controls on or off.

#PULL PUSH MOTION CONTROL ON,0 MEANS OFF,1 MEANS ON
pull_push_on=1

#PUSH PULL MOTION CONTROL OFF,0 MEANS OFF,1 MEANS ON
push_pull_off=1

#ADJUST THE SENSITIVITY OF PUSH, LOWER NUMBER MEANS EASIER TO ACTIVATE PUSH. DEFAULT IS 18
push_sensitivity=18

#ADJUST THE SENSITIVITY OF PULL, LOWER NUMBER MEANS EASIER TO ACTIVATE PULL. DEFAULT IS 8
pull_sensitivity=13

#SWING ON MOTION CONTROL, 0 MEANS OFF,1 MEANS ON
swing_on=1

#ADJUST THE SENSITIVITY OF SWING, LOWER NUMBER MEANS EASIER TO ACTIVATE SWING. DEFAULT IS 400
swing_sensitivity=400

#TWIST ON MOTION CONTROL, 0 MEANS OFF,1 MEANS ON
twist_on=1

#TWIST OFF MOTION CONTROL,0 MEANS OFF,1 MEANS ON
twist_off=1

#ADJUST THE SENSITIVITY OF TWIST, LOWER NUMBER MEANS EASIER TO ACTIVATE TWIST. DEFAULT IS 250
twist_sensitivity=220

#ADJUST LIGHT EFFECT OF PRE-ON BLADE MODE TIME(MS) (ADJUST THE LIGHT EFFECT TO MATCH THE PRE-ON FONT TIME) PLEASE BACKUP DEFAULTS BEFORE EDITING!

blade1_on_time=1400

blade2_on_time=4000

blade3_on_time=1920

blade4_on_time=900

blade5_on_time=2600

blade6_on_time=200

blade7_on_time=2500 – These numbers refer to the ignition style effects sounds played before the blade ignites. The times set match the length of the audio file and cannot be changed unless the length of the audio file is changed to match. Good to know when creating your own pre-on file. This is seen below as option F when setting up the font parameters.

#ON INSERTING SD CARD BACK ON BOARD, SABER WILL BEGIN FROM CORRECT FONT. 0 MEANS OFF,1 MEANS ON
current_font=34 – sets the default font after inserting the SD card back in.

#BLADE MODES ON SWITCH,0 MEANS OFF,1 MEANS ON. THESE ARE ALL DEFAULTED TO OFF (0)

velocity_mode=0

torch_mode=0

multiblock_mode=0

multilock_mode=0

lightning_block_mode=0

blaster_mode=0

ghost_mode=0 – additional effects for the font when the blade is ignited.

#SWITCH CONTROL SOUND, 0 MEANS OFF,1 MEANS ON. USEFUL FOR HILTS WITHOUT LED LIT SWITCH/BUTTON
countdown=0 – for sabers like Kenobi's or Skywalker's where the button is under the control box, an audible sound is heard for changing fonts and effects.

#DEFAULT FONT EFFECT SETTINGS

#EACH SECTION EXPLAINED BELOW BASED ON THIS EXAMPLE FORMAT: FONT1=(0,0,0),A,B,C,D,E,F,G,H

#FONT1 IS THE FONT FOLDER NUMBER

#(0,0,0) IS THE DEFAULT BLADE COLOR OF EACH FONT,COLOR ORDER DATA (RED,GREEN,BLUE), WITH A RANGE OF 0-255 EACH. (0,0,0) IS NO LIGHT, (255,255,255) IS WHITE LIGHT, (255,0,0) IS RED LIGHT, ETC.

#'A' IS DEFAULT HUM LIGHT EFFECT OF EACH FONT. REPLACE 'A' WITH ONE OF THE FOLLOWING: (FIRE BLADE=0, STEADY BLADE=1, UNSTABLE BLADE=2, RAINBOW BLADE=3, CANDY BLADE=4, CRACK BLADE=5, PULSE BLADE=6, FLASHING BLADE=7)

#'B' IS DEFAULT BLASTER LIGHT EFFECT OF EACH FONT. REPLACE 'B' WITH ONE OF THE FOLLOWING: (LIGHT EFFECT1=0,LIGHT EFFECT2=1,LIGHT EFFECT3=2)

#'C' IS DEFAULT FORCE LIGHT EFFECT OF EACH FONT REPLACE 'C' WITH ONE OF THE FOLLOWING: (LIGHT EFFECT1=0,LIGHT EFFECT2=1)

#'D' IS DEFAULT LOCK UP LIGHT EFFECT OF EACH FONT. REPLACE 'D' WITH ONE OF THE FOLLOWING: (LIGHT EFFECT1=0)

#'E' IS DEFAULT FLASH ON CLASH LIGHT EFFECT OF EACH FONT. REPLACE 'E' WITH ONE OF THE FOLLOWING: (LIGHT EFFECT1=0,LIGHT EFFECT2=1,LIGHT EFFECT3=2)

#'F' IS DEFAULT STYLE OF EACH FONT. REPLACE 'F' WITH ONE OF THE FOLLOWING: (STANDARD BLADE=0, VELOCITY BLADE=1, TORCH BLADE=2, BLASTER MODE=3, GHOST MODE=4, SPECIAL PREON=5/6/7/8/9/10/11)

#'G' IS ON SPEED OF EACH FONT. 200 IS A BASIC DEFAULT, HIGHER NUMBERS ARE SLOWER ON SPEED

#'H' IS OFF SPEED OF EACH FONT. 500 IS A BASIC DEFAULT, HIGHER NUMBERS ARE SLOWER OFF SPEED

font1=(0,0,255),2,0,0,0,0,200,650
font2=(255,255,0),7,1,1,0,1,10,200,550
font3=(255,255,255),7,2,0,0,2,0,400,1000
font4=(255,0,0),5,0,1,0,0,0,200,700
font5=(255,0,0),0,1,0,0,1,0,200,700
font6=(100,0,255),0,2,1,0,2,0,200,700
font7=(0,0,255),6,0,0,0,0,0,200,700
font8=(255,0,0),0,1,1,0,1,0,200,500
font9=(0,255,0),1,2,0,0,2,0,200,650
font10=(255,0,0),1,0,1,0,0,0,200,500
font11=(0,255,0),6,1,0,0,1,0,200,500
font12=(255,0,0),1,2,1,0,2,0,200,500
font13=(255,51,255),6,0,0,0,0,0,200,500
font14=(0,255,255),6,1,1,0,1,0,200,500
font15=(150,50,255),1,2,0,0,2,0,200,500
font16=(255,0,0),0,0,1,0,0,0,200,700
font17=(255,22,0),7,1,0,0,1,0,200,700
font18=(255,0,0),1,2,1,0,2,0,200,700
font19=(0,255,0),6,0,0,0,0,0,200,650
font20=(255,255,255),1,1,1,0,1,0,200,650
font21=(255,0,0),1,2,0,0,2,0,200,500
font22=(255,255,255),0,0,1,0,0,0,200,650
font23=(175,0,255),0,1,0,0,1,0,200,2500
font24=(204,128,255),1,2,1,0,2,0,200,900
font25=(255,0,0),0,0,0,0,0,0,200,600
font26=(255,10,0),1,1,1,0,1,0,200,1400
font27=(50,160,255),6,2,0,0,2,0,200,1050
font28=(255,0,255),2,0,1,0,0,0,200,700
font29=(255,0,0),0,1,0,0,1,0,300,700
font30=(0,0,255),1,2,1,0,2,0,200,600
font31=(255,0,0),0,0,0,0,0,0,200,650
font32=(255,171,0),6,1,1,0,1,0,200,500
font33=(164,255,0),0,2,0,0,2,0,200,600

font34=(255,192,203),3,0,1,0,0,0,3000,2000 - By default, there are 34 (20 on the OB-1 Sabers SD) of these fonts matching the default 34 fonts included on the SD card. The amount of fonts must match the amount of fonts on the card. Styles can be customized for each font.

#END MEANS DATA UNDER THIS COMMAND DO NOT AFFECT OPERATION
end=1

CHANGING FONTS

You will notice all the folders on the SD card are numbered sequentially. This is to match the font settings in the config.ini file starting with Color-1=. Inside each folder is the wav file for each type of sound and they are also numbered sequentially. Here is a breakdown:

preon folder – does not appear to be called on the V3 soundboard.

Preon (1) – a preon sound.

begindrag (1) – sound used when drag begins.

beginlock (1) – sound used when lockup begins.

beginmelt (1) – sound used when drag begins.

blaster (1) – sound used when the button is tapped while the blade is on.

clash (1) – sound used when the blade is struck.

drag (1) – sound used when drag effect is used.

enddrag (1) – sound used when drag ends.

endlock (1) – sound used when lockup ends.

endmelt (1) – sound used when melt ends.

font (1) – sound used to identify the font when cycling through.

force (1) – sound used when force effect is initiated.

hum (1) – sound used when the saber is idle and blade is on.

in (1) – sound used when the blade is turned off.

lock (1) – sound used when lockup is initiated.

melt (1) – optional sound used when drag is used.

out (1) – sound used when the blade is ignited.

spin (1) – sound used when the blade is swung repeatedly.

stab (1) – sound used when the blade is ignited with stab gesture.

swing (1) – sound used when the blade is swung.

swingh (1) – sound used when the blade is swung high.

swingl (1) – sound used when the blade is swung low.

track (1) – music track played when the feature is activated.

You can use any sound you like as long as it is a .wav file and is named accordingly. You can also use as many as you like as long as they are numbered sequentially: font (1) font (2)... etc. The xeno board will cycle through them.

It is best to back up your SD card first in case anything goes wrong so you can restore it if necessary. Create a folder on your computer to build your font files then copy them over to your SD card.

The process is the same as updating the firmware. Remove the battery, remove the SD card. Plug the SD card into the computer and make the changes. You may find a .font file inside every font folder, this must be deleted before the card is replaced into the board.

If you wish to have a limited number of fonts on the SD card, such as a single font for a character saber, make the changes to the font folder (which will be named 1) then make your adjustments in the config file in the setting folder for font1 then you can delete the rest.

TROUBLESHOOTING

Saber doesn't start after charging.

Remove the battery and check the battery contact plates to ensure they are making contact. Gently bend them out if they are not making contact. Reinsert the battery, turn on the saber. If it still does not start, try charging the battery again.

Batter won't charge.

Try a different cable, some generic brands of cables and charging blocks won't work.

Saber has no sounds.

This is usually from low battery power. Sound is the first to go when the battery is running out. Also check that the files on the SD card are set up correctly if any customization was done and the card is seated properly. Certain sounds may not play because the V3 audio files must be on Mono channel and sample rate of 44100 Hz to be recognized. Format Factory is a great, free program for formatting sound files. This issue may happen if your saber came at factory default but OB-1 Sabers has rebuilt the SD folder contents to avoid this issue.

Saber suddenly stops working.

Remove the battery and check contact plates. Check the soundboard for damage or overheating.

Saber makes sounds but no light.

Check that the blade is fully seated on the pogo. Check the pogo pins are not missing or damaged. Cycle the blade styles, the saber may be on ghost or blaster blade.

Saber is hot near the emitter.

It is normal for some heat to build up here but the emitter chassis will diffuse most of it. If heat builds up around the battery and board, check for damage, there may be a faulty battery or charge port. Only use the 5W phone chargers not the 10W ipad style chargers as this will cause overheating.

OB-1 Sabers is dedicated to making sure you have the best, affordable saber experience possible. Please be safe while you are strengthening your saber skills and check the website often as new products, information and goodies are always being added.

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If you have any feedback, questions, concerns or you would just like to leave a comment about your experience with us, send us an email.

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