

# ViVi Music LED Controller

## Instruction Manual - v1.0

### Package Contents

The controller kit includes the following items:

- ViVi Music LED Controller
- 3 x LED Strip Adapters, 6" (4-pin Molex to 3-pin JST-SM)
- 3 x LED Strip Extensions, 2 meter (4-pin Molex to 4-pin Molex)
- Audio Splitter Cable (3.5mm, one male to two female)
- Audio Extension Cable (3.5mm, male-to-male)
- External Microphone

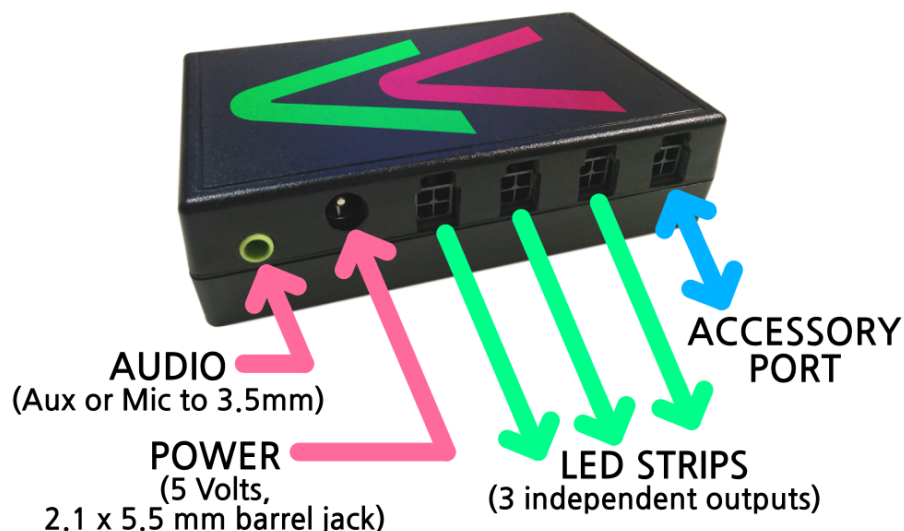
**Four Strip Complete Systems** additionally include:

- 4 x LED Strip, 5 meters, 5V, WS2812B 30 LED/meter, white with silicone sleeve
- 2 x LED Strip Splitter Cable, 12" (4-pin Molex to 4-pin Molex) w/ extra LED Adapter
- 5V 8A power supply

### Quick Setup

A quick setup video can be found at <http://vivimusicled.com/info/>

- 1) Use the **LED strip adapter and extension cables** to connect your ViVi unit to your LED strips.
- 2) Connect your audio device into the 3.5mm **AUDIO** port, use the included audio splitter to connect to both ViVi and your speakers. OR use the include microphone to detect sound.
- 3) Plug in **power** from a 5 Volt power supply - **5V ONLY!!**
- 4) Play your music and watch the light show take off automatically!
- 5) Download the **ViVi VibeLink** app to adjust strip length and other settings.



# Product Information

## Audio

A 3.5mm audio jack allows for an input from a variety of sources:

- **Aux or line-out** of any device such as a cell phone, laptop, or regular stereo. Use the included 3.5mm splitter to pass-through the audio signal to the original destination (ex: speakers).
- Included **microphone** can be plugged into the 3.5mm to pick up sound. Place the microphone as close as possible to your sound source (ex: speaker).
- **High end DJ setups and instrument level** outputs can be used with adapters (such as RCA to 3.5mm; not included) for direct access and perfect sound reproduction

## LED Strips

ViVi supports addressable RGB LED strips that use the WS2811 data protocol. For more information on recommended products, please visit <https://visualvibes.io/info>

- WS2811 (5V)
- WS2812
- WS2812B
- WS2811 (12V) - REQUIRES MODIFICATION
- WS2813 - REQUIRES MODIFICATION

**Any LEDs not purchased from Visual Vibes may require modification to ensure proper connection.**

Many manufacturers produce compatible LEDs and may use different connector configurations, they should all use JST-SM 3-pin connectors, but you should verify the wires line up with the correct circuits before plugging in.

On the bottom of the ViVi Music LED Controller is a diagram showing the pinout and colors of the wires, make sure Power, Ground, and Data connect correctly to the LED strip.

If you have questions or issues email us at [support@visualvibes.io](mailto:support@visualvibes.io) for assistance.

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Each **LED Output** provides power and data to your LED strips.

- Use the included **adapter cables** to connect ViVi to your LED strips, these convert from ViVi's 4-pin connectors to the strips' 3-pin connectors.
- Included **extension cables** allows you to increase the distance between the start of the LED strip and the ViVi controller. You can use multiple end-to-end, up to 11 going to a single strip, other factors (such as splitting) affect how far extensions can carry the data signal.
- Optional **splitter cables** allows you to mirror the animation from one ViVi output to multiple LED strips. Maintain signal strength by using a single cable for as long as possible before adding a splitter.

## **Dev. Port (Development Port)**

This port will be used by Visual Vibes to develop additional features and plug-in attachments for the ViVi Music LED Controller. Keep up with us on Social Media or sign up for The Vibe newsletter on our website to see what we create and when it will be released. Our current plans include adding DMX and MIDI control (both master and slave), developing a physical control panel interface which a published protocol so you can make custom control panels, and developing a WiFi adapter.

## **Important Note for Large Setups**

For larger setups or longer strips, you need to attach additional 5V power at the far end of the LED strip to keep brightness and color consistent the entire length of the strip. We recommend additional power every 150 LEDs, but your setup may vary based on the settings you use.

For many large setups it is better to use 12V WS2811 LEDs, but doing so requires special precautions and modifications to keep 12V isolated from ViVi. If 12V power reaches ViVi it will damage the controller.

Guide for [Adding Additional 5V Power to LEDs](#)

Guide for [Using 12V LEDs with ViVi](#)

# The App - ViVi VibeLink

Download **ViVi VibeLink** from the Apple Store or Google Play to change animations, colors, the length LED strips, and other settings. The application will be updated regularly to add and improve features for ViVi.



Figure 1.1 Selecting Your ViVi Signal

- To connect your device to the ViVi controller ensure your devices Bluetooth is on. Ensure ViVi is powered, ViVi's Bluetooth is always on.
  - Open the app ViVi VibeLink, select the ViVi device from the Bluetooth list. *NOTE: you do NOT need to pair in advance.*
1. Once your ViVi is connected change tabs to adjust various settings, the updated settings are sent to the controller as they are selected.

## Color Bar and Brightness

- Select the color and adjust the maximum brightness to your preference. *NOTE: Depending on your color option settings, the color may change from what you set.*

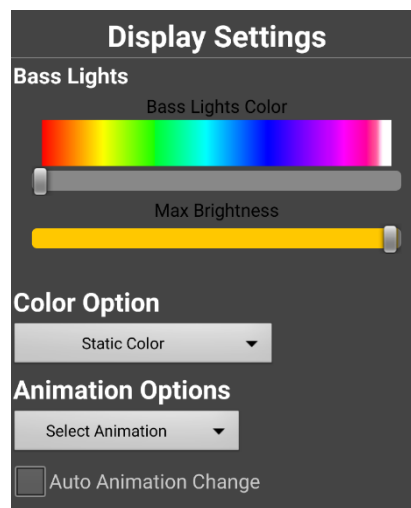
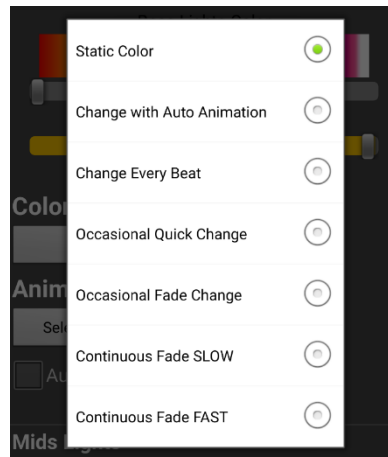


Figure 1.2 ViVi Channel Settings - All 3 Frequencies Share Same Options

## Color Options

- Drop down selection for color changing options



*Figure 1.3 List of ViVi Color Cycle Options*

## Color Modes Explained

- **Static Color** - Keeps one constant color
- **Change with Auto Animation** - If the Auto Animation check box is activated then this color option will cause the color to change each time the animation changes
- **Change with Every Beat** - Changes color each time a beat hits on the corresponding output
- **Occasional Quick Change** - Randomly changes every 10 - 20 seconds
- **Occasional Fade Change** - Randomly changes every 10 - 20 seconds, but fades between the two colors rather than an instant change
- **Continuous Fade SLOW** - Slowly cycles through all colors with a fade effect
- **Continuous Fade FAST** - Quickly cycles through colors with a fade effect

## Animation Options

- Drop down menu to choose an animation. Check the Auto Animation box below to randomly cycle through all available options every 10 - 20 seconds; Auto Animation excludes Constant (non-audio-reactive) options.

## Animation Choice Recommendations

Name	Recommended Frequency to use with
Blink	Mids / Highs
Fade	Lows/ Mids
Strobe	Mids / Highs
Scale Brightness	Lows / Mids / Highs
Scale Linear	Lows / Mids / Highs
Lasers	Mids / Highs
Sparkle Explosion	Lows / Mids / Highs
Section Switch	Mids / Highs
Section Flash	Mids / Highs
Scaled Scrolling	Lows / Mids / Highs
Mixed Options	Uses all frequencies and displays on a single strip
Constant Options	<i>These do not use VibeSync™ beat-matching and instead provide a consistent repeating animation</i>

## SETUP Tab

### Noise Filter

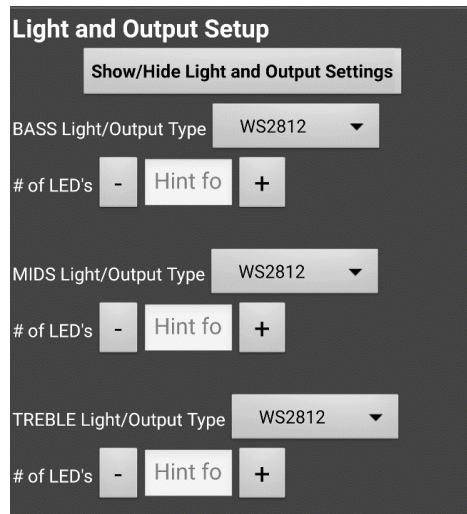


**Figure 1.4 Noise Filter Setting**

This adjusts the minimum volume threshold and other factors to prevent unwanted noise from triggering audio reactions.

- The lower the number, the more sounds ViVi will react to
- Default setting is 3

## LED Strip Light Count



**Figure 1.5 Light and Output Setup**

This is an important setting to make animations fit your custom setup perfectly. Use to adjust how many LEDs per strip you'd like the animations to use.

Once you select the number of LEDs, ViVi will illuminate the first LED, last LED, and center LED(s) to let you see how animations will be placed and help you easily position your strip; it will automatically return to the animation after a few seconds.

### LED strip output type

This tab also has the option to change LED type because addressable LED strips come in various models, but currently ViVi only supports WS2811 based products, also called Neopixels by some manufactures.

## Product Specifications

Dimensions	2.4" x 3.75" x 1.0" (61 x 95 x 25 mm)
Weight	0.125 lbs / 56g // 2.0 oz
Voltage	5V (input and output)
Power Draw	0.15 - 4.0A (depends on # of LEDs, fuse limited maximum for safety)
Audio Input	3.5mm jack; line-level audio or included external mic
Output Channels	3 - One each for Highs, Mids, Lows (Bass)
Max. LEDs Supported	900 (total limit across all channels); 1,500 for non-music-reactive animations
Supported LED Types	WS2811, WS2812, WS2812B, WS2813 (with connector modification)
Manufacturer's Warranty	1 Year Limited Parts and Labor

## FAQ & Troubleshooting

- Please visit <https://visualvibes.io/info> for the latest manual updates, video installation guides, and troubleshooting FAQ.

## Safety Precautions and Product Care

- ViVi is not designed for outdoor use. Do not expose this unit to rain or moisture. Install in locations that are safe from liquid spills.
- Only plug 5 Volt power into ViVi.
- Do not operate the unit with any connectors, cables, or LEDs that are damaged or broken.
- Unplug power to ViVi when changing LED cables to avoid power surges on the LEDs.
- Always mount the unit in a safe and stable manner where it is not hanging from the cables.
- Ensure cables are routed so they do not get tugged or pulled on accidentally.
- To clean the unit, use a soft damp cloth to wipe dirt from the body; use compressed air to clean dust from inside the unit.
- **Do not attempt any repairs yourself**, as doing so will void your warranty. For service, email customer support at [support@visualvibes.io](mailto:support@visualvibes.io)

**This device complies with part 15 of the FCC Rules.** Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Environmental Protection



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

Based on information provided by our material suppliers and manufacturers, this product does NOT contain the substances restricted by RoHS legislation at levels over the maximum concentration values.

**Visual Vibes LLC**  
Virginia Beach, VA

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Web: <http://visualvibes.io>

Twitter: @ViViMusicLED

Facebook: <https://www.facebook.com/VisualVibesLLC>

Instagram: @visualvibesio



## **Manufacturer's 1-Year Limited Warranty**

- A. Visual Vibes LLC hereby warrants, to the original purchaser, Visual Vibes products to be free of manufacturing defects in material and workmanship for one (1) year from the date of purchase. No other damage, defects, or malfunctions are covered under this warranty and if any damage that is determined to not be the direct result of a manufacturing defect is present then this warranty shall be void. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
- B. For warranty service, you must obtain a Return Authorization number (RA#) before sending back the product. Contact Visual Vibes Customer Service Department via [support@visualvibes.io](mailto:support@visualvibes.io). All shipping charges must be prepaid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Visual Vibes will only pay return shipping charges to locations within our sales regions . If the entire unit is sent, it must be shipped in it's original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Visual Vibes shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.
- C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Visual Vibes LLC concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than Visual Vibes LLC unless prior written authorization was issued to purchaser.
- D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, Visual Vibes LLC will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Visual Vibes LLC under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Visual Vibes LLC. All products covered by this warranty were manufactured after January 1, 2017, and bear identifying marks to that effect.
- E. Visual Vibes LLC reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by Visual Vibes in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The terms of the warranty may change at any time without prior notice. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Visual Vibes LLC be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product. This warranty is the only written warranty applicable to Visual Vibes LLC Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.