

The background of the entire page is a dark, blue-tinted photograph of a crowd of people. Many of their arms are raised in the air, suggesting a concert, festival, or a large gathering. The lighting is dim, with some brighter spots that might be stage lights or fire in the distance.

Rocket Show

SPARK

Quick Start Guide

RS-SPARK-1

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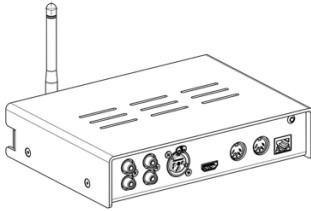
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1. Introduction

Thank you for purchasing Rocket Show SPARK. This is a show automation system that allows you to create and run synchronized performances by combining audio, video, lighting, and MIDI-controlled devices in a single setup.

The system can be controlled from a notebook, smartphone, tablet, external buttons, or a MIDI controller. Multiple devices can be networked together, enabling complex multimedia shows to be executed reliably.

Example use cases include live performances for artists, immersive environments (e.g., escape rooms), Christmas lighting synchronized with music and video, church services, business displays, and more.



To ensure the product operates as intended and provides long-lasting performance, please read these instructions carefully before use. Proper handling and setup will help you get the most out of your device.

For additional information, updates, and support resources, please visit our website at rocketshow.net.

2. Disclaimer

The manufacturer shall not be held liable for any damage to connected fixtures, monitors, or other devices resulting from misuse, incorrect configuration, improper installation, or operation outside the specified limits of the product.

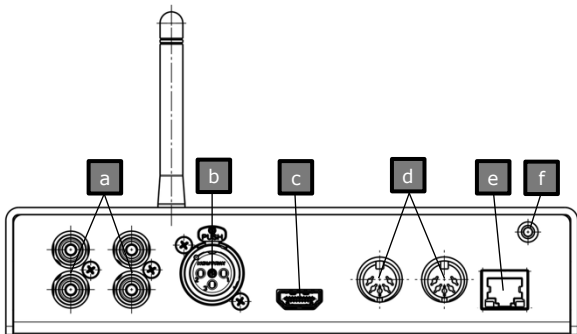
Furthermore, the manufacturer assumes no responsibility for any injury or harm to persons caused by the use of this product in combination with lighting fixtures or other connected equipment. It is the user's responsibility to ensure safe operation and compliance with all applicable regulations and standards.

3. Package Contents

- Rocket Show Spark
- Power Supply Unit (including adapter)
- Wi-Fi Antenna
- 3 × Terminal Blocks for Digital Control

4. Product Overview

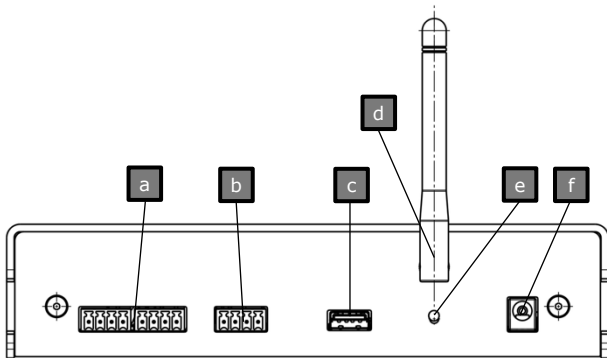
Multiple connection interfaces are featured on the front panel, providing flexible integration with a wide range of devices:



- a. **Stereo Audio Outputs 1 & 2:** Two independent stereo outputs (four channels in total), which can also be used as separate mono outputs if needed.
- b. **DMX Output:** Used to control compatible lighting equipment.
- c. **HDMI Output:** For video output to external displays or monitors.
- d. **MIDI In / MIDI Out:** For integration with MIDI-compatible devices.

- e. **Ethernet Port:** For network connectivity and control.
- f. **Status LED:** Indicates the device's activity and operating state. It lights up green when the device is running and active. After connecting the device to power, it may take a few seconds for the LED to turn on.

The rear panel provides additional connectivity and control options:



- a. **4 × Digital Outputs:** For controlling external digital devices. Each output consists of a pin pair: the left pin provides 3.3 V when active, and the right pin is ground. Warning: Improper use may damage the device or a connected device.
- b. **2 × Digital Inputs:** For receiving signals from external devices. Each input consists of a pin pair: the left pin should be driven to 3.3 V when active, and the right pin is ground. Warning: Improper use may damage the device or a connected device.
- c. **USB 2.0 Port:** Can be used to connect additional audio/MIDI interfaces or peripherals.
- d. **Antenna Connector:** Optional; only required when using Wi-Fi connectivity.
- e. **Reset Button:** Press and hold for at least 5 seconds to initiate a factory reset of the device. Please note that this will erase all data, including settings and compositions.
- f. **Power Input:** Use only the provided power supply unit.

5. Technical Specifications

Power Consumption	Up to 25 W under full load (5 V DC)
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Computing Unit	Broadcom BCM2712 quad-core 64-bit Arm Cortex-A76 (Armv8) SoC @ 2.4GHz 2 GB SDRAM
Storage	64 GB total capacity (approximately 15 GB used by the system)
Wifi	2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac
Audio	Resolution: 16-bit Sampling rate: 48 kHz Signal-to-noise ratio (SNR): 98 dB (typical) Dynamic range: 98 dB (typical)
DMX	DMX512 protocol, 3 pins
HDMI	Different formats
Digital In/Out	3.3 V Operating current per pin: ≤ 8 mA

USB 2.0	High speed
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6. Safety Information

General Safety

- Read these instructions carefully before using the device.
- Keep these instructions for future reference.
- The manufacturer is not liable for damage caused by improper use.

Before First Use

- Before using the device for the first time, check the device and all accessories for visible damage.
- Do not use the device if it is damaged.

Intended Use

- This device is intended exclusively for controlling audio, lighting, and multimedia systems in indoor environments.

- Any other use is considered improper and may result in hazards.

Installation & Environment

- For indoor use only.
- Do not use the device in areas with high humidity, extreme heat, or dust.
- Do not expose the device to water, liquids, rain, or condensation.
- Do not expose the device to direct sunlight.
- Place the device on a stable, level, and non-flammable surface during operation.
- Ensure adequate ventilation. Do not cover or block ventilation openings.

Electrical Safety

- Only use the supplied power supply.
- Ensure that the available mains voltage corresponds to the rating marked on the power supply.
- Power supply: 5 V DC, up to 25 W under full load.
- Ensure that all cables are undamaged before use.
- Disconnect the device from power before cleaning.

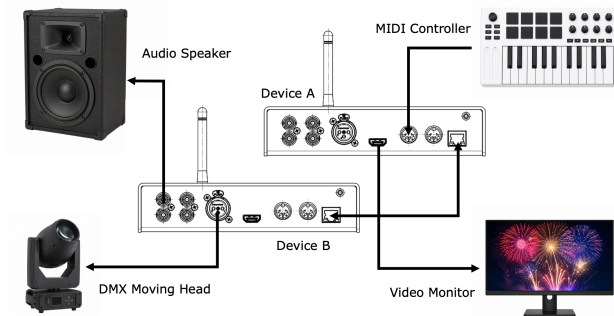
Device Handling

- Do not open or disassemble the device.
- There are no user-serviceable parts inside.
- Repairs must be carried out by qualified personnel only.

Electrostatic Discharge (ESD)

- This device contains electrostatic-sensitive components.
- Avoid touching connectors, GPIO pins, or internal parts.
- Use appropriate ESD precautions (e.g., grounded wrist strap) when handling the device, especially during installation or connection of peripherals.
- Electrostatic discharge may cause permanent damage to the device.

7. Wiring Diagram



This example shows a setup with two Rocket Show SPARK devices (Device A and Device B) connected over an Ethernet network:

Device A (Main Controller)

A MIDI controller is connected to MIDI In on Device A, allowing real-time control of the show. Device A outputs video via HDMI to a monitor for visual playback.

Network Connection

Device A and Device B are connected via Ethernet, enabling synchronized communication and control between both units.

Device B (Expansion Controller)

Device B receives control data from Device A over the network and handles additional outputs:

- DMX Output connects to a moving head lighting fixture for dynamic lighting control
- Audio Output connects to an external speaker system for sound playback

Note on Network Synchronization

Synchronization over Ethernet is limited to control instructions between devices. One device can control and trigger actions on another; however, full real-time synchronization during playback is not supported.

For applications requiring precise timing (e.g., perfectly aligned audio or video playback across multiple devices), ensure that all critical outputs are handled by a single device.

8. Initial Setup

Please follow these steps to power on and access your device:

1. Power On the Device

Connect the device to the provided power supply, and plug the power supply into a suitable power outlet.

2. Wait for Boot Process

The device requires approximately one minute to boot on first startup.

Ensure that the green status LED indicates activity. If not, the device may not be powered correctly.

3. Choose Connection Method

The device can be accessed either via:

- Ethernet (recommended for stable operation), or
- Wi-Fi Hotspot

4. Wi-Fi Setup (if not using Ethernet)

- Attach the Wi-Fi antenna to the connector on the back of the device
- On your Wi-Fi-enabled device (laptop, tablet, or smartphone), scan for a network named: "Rocket Show" (with a device-specific suffix)
- Connect to this network. The network is not secured initially. It operates on 2.4 GHz.
- Some devices may warn that there is no internet connection—remain connected anyway, as this is required for access

5. Access the Web Interface

Open a web browser and enter:

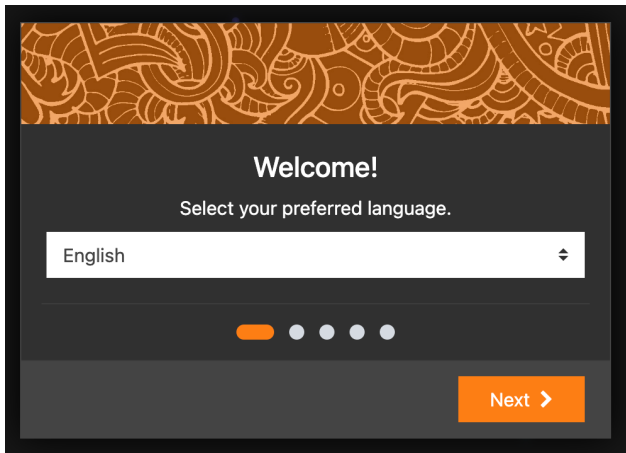
<http://rocketshow.local>

If this address does not work, use the IP address instead:

- Wi-Fi Hotspot (default): <http://192.168.4.1>

- Ethernet: The device receives a dynamic IP address, which can be obtained from your router or network provider

Setup Wizard

The image shows a 'Setup Wizard' welcome screen. At the top is a decorative orange banner with a complex, swirling pattern. Below this, the word 'Welcome!' is displayed in a large, white, sans-serif font. Underneath, the text 'Select your preferred language.' is shown in a smaller white font. A white rectangular dropdown menu is centered, containing the word 'English' and a small downward-pointing arrow icon on the right. Below the dropdown, there are five circular progress indicators: the first is orange, and the other four are gray. At the bottom right, there is an orange button with the text 'Next' followed by a right-pointing chevron icon. The entire interface is set against a dark gray background.

Welcome!

Select your preferred language.

English ▾

Progress indicators: 1 of 5 steps (1st is active)

Next >

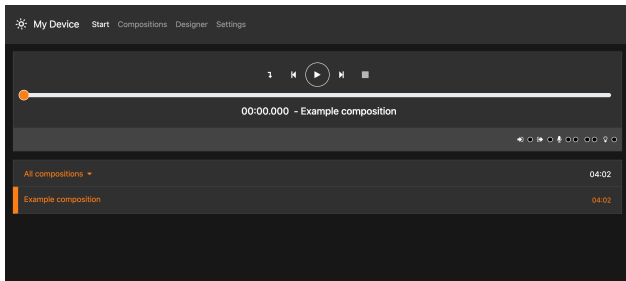
Once connected, the setup wizard will guide you through the initial configuration:

1. **Select Language:** Choose your preferred language for the user interface.
2. **Device Name:** Assign a name to your device. This is especially useful when operating multiple devices, as it allows you to quickly identify and distinguish them on the network.
3. **Set Password:** Create a password to access the device. Make sure to store this password securely. If the password is lost, you will need to perform a factory reset using the reset button to regain access. Please note that this will erase all data, including settings and compositions.
4. **Wi-Fi Access Point:** Decide whether to keep the Wi-Fi access point enabled. If the device is connected via Ethernet, it is recommended to disable the Wi-Fi access point for improved security.
5. **Secure Connection:** You can enable a secure connection using TLS encryption. This is recommended to protect communication with the device.

After completing these steps, the device is ready for use.

9. Basic Operation

Start



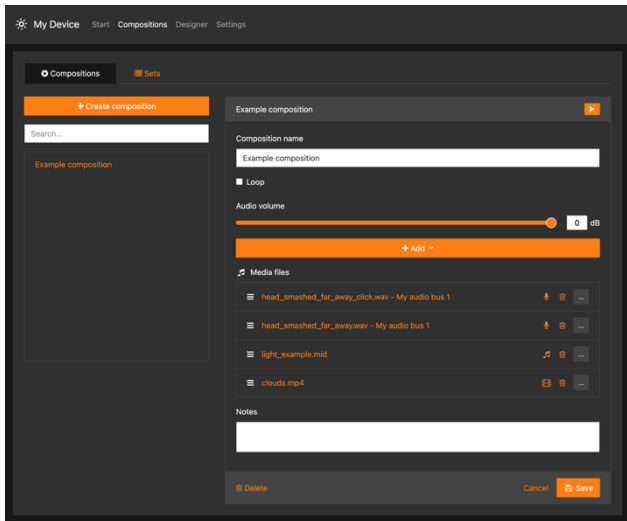
The start screen provides quick access to playback and basic show control.

- **Playback Control:** The user can start and stop the currently selected composition directly from this screen.
- **Autoplay / Set Playback:** If the leftmost icon (autoplay) is activated, the next composition in the set will automatically

play after the current one finishes. For this to work, autoplay must also be enabled for the next composition within the set.

- **Monitoring Information:** If monitoring is enabled in the settings, activity information is displayed directly below the composition name, providing real-time feedback during playback.

Compositions

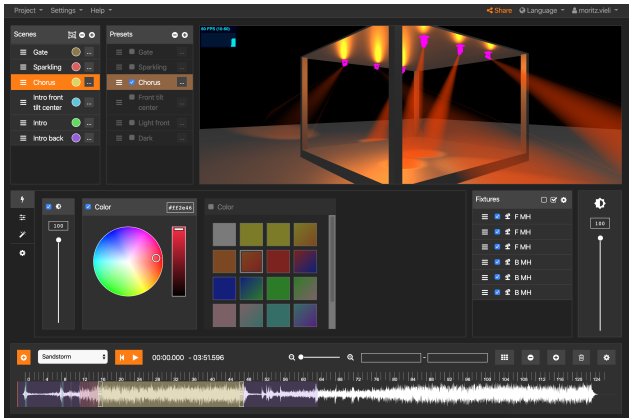


The Compositions screen is where shows are created and organized.

- **Creating Compositions:** Users can create and manage compositions by adding media files and defining timed actions. These actions can include, for example: Sending specific MIDI commands at defined timestamps or activating digital output pins to trigger external devices. This allows precise synchronization of audio, lighting, and external effects within a single composition.
- **Sets:** Multiple compositions can be grouped into sets, enabling structured playback of a full show sequence. Sets are particularly useful for organizing complex performances with multiple parts and reused compositions.
- **Default Composition:** A composition can be assigned as the default composition in the settings. When configured, this composition will automatically play when the device is powered on.

Make sure to carefully test all compositions and connected devices before using them in a live production.

Designer



The Designer is used to create and configure lighting shows.

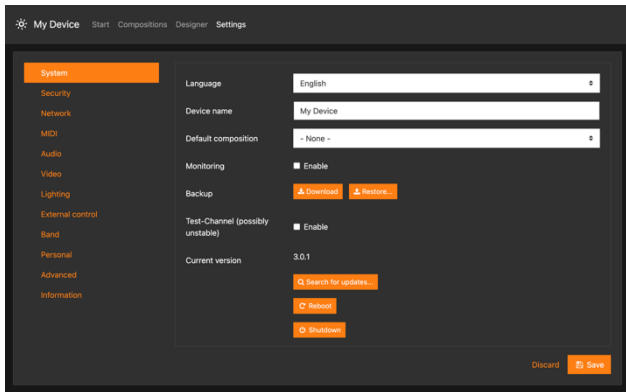
- **Lighting Show Creation:** Users can define and manage fixtures, create effects, and build scenes to design dynamic

lighting sequences. This allows detailed control over lighting behavior and visual appearance.

- **Synchronization with Compositions:** The Designer is directly linked to the Compositions screen. Lighting shows created in the Designer are synchronized with compositions, ensuring that lighting, audio, and other actions run in precise alignment.

The Designer provides a powerful yet structured environment for building professional lighting shows integrated into your overall production.

Settings



The Settings screen provides access to system configuration and essential device options.

Here, you can configure the Wi-Fi access point, including whether it is enabled for direct connection to the device. You can also

define MIDI routing, allowing you to control how MIDI signals are processed and assigned between inputs, outputs, and internal functions. In addition, the audio bus management section lets you organize and route audio channels according to your setup.

General system settings such as device name and security options are also available here. This screen allows you to adapt the device to your specific workflow and environment.

Carefully test all compositions and connected devices after changing settings or updating the device to a newer version.

10. Troubleshooting

Status LED not lighting up	Check power supply.
Wifi hotspot not showing up	Make sure you are scanning with a compatible device. Make sure, the wifi hotspot is not disabled.

	Connect the device using an ethernet cable to your network.
No HDMI output	Make sure, the cable and receiving device is not damaged. Reboot the device to re-initialize the handshake.
No audio output	Check, whether the audio files are not muted and the volume is adjusted.

11. Warranty Information

Rocket Show SPARK is covered by a 2-year limited warranty from the date of purchase.

This warranty covers defects in materials and workmanship under normal use. During the warranty period, the manufacturer will, at its discretion, repair or replace the product if a defect is found.

The warranty does not cover damage resulting from misuse, incorrect installation, unauthorized modifications, or operation outside the specified limits of the product.

Proof of purchase is required to make a warranty claim. For warranty service or further information, please contact our support team.

12. Contact & Support

For support, documentation, and additional information, please visit our website: rocketshow.net.