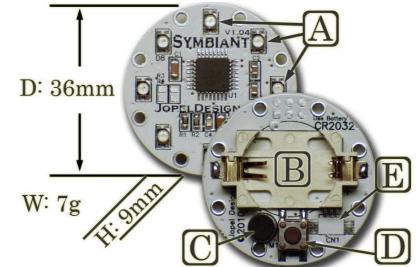
# Luminous Interactive Art Series 1, v1.04 User Manual



## **Parts and Description:**

LIA-1 v1.04 is a watch battery powered eight channel LED light engine with sound reaction. It is designed for small size, portability and providing a project 'backbone'. The most common use is costume attire and wearable art.

- A. Tri-Color LED
- B. Battery Holder
- C. Microphone
- D. Button
- E. Network Connection



# **Operation:**

### On-Off

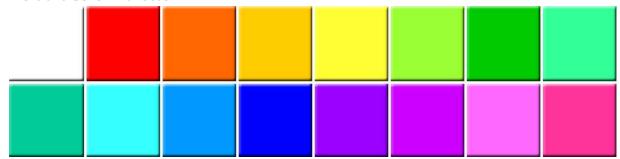
Momentarily press the button to wake LIA from sleep mode. Hold the button down for 3 seconds to enter sleep mode. Remove the battery if LIA is stored more than a few days.

### Mode

Momentarily press the button the number of times corresponding to the mode you want the LIA to enter. Each button press will illuminate a light, counting the lights indicates the next mode of operation.

Mode	Description	Button presses
Morph mode	Randomly changing colors and patterns	1
Dance Mode	Sound reaction with random colors and patterns	2
Dim Morph Mode	Reduced brightness, randomly changing colors and patterns	3
Dim Dance Mode	Reduced brightness, sound reaction with random colors and patterns	4

### **Default Color Palette**



### **Color Programming**

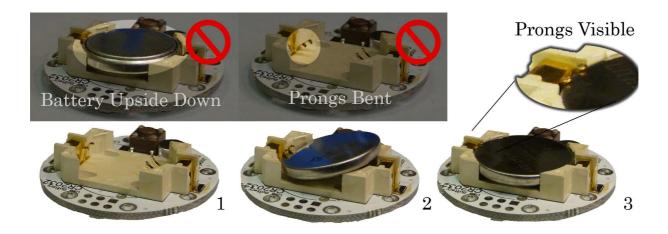
Color Programming allows the user to control the color palette available for random selection. From an ON state, hold the button (10 seconds) until all LED's glow blue, then release. The available color palette will be displayed in a repeating cycle, pausing several seconds on each color. Pressing the button makes the lights go dark indicating the current color has been disabled from the color palette. Programming mode ends when the button is held until all LED's glow blue (5 seconds) or the sequence repeats 3 times without modification. The final color being displayed is not disabled.

### **Resetting Colors**

The full palette is restored by holding the button longer when entering Color Programming mode. Five seconds after the lights glow blue (for programming mode) they will change to red (palette reset). Releasing the button then enters Color Programming Mode.

#### **Batteries:**

LIA-1 v1.04 is powered by a CR2032 battery. If the LIA won't wake up, or only glows in red, a new battery is needed. Carefully pry the battery out of the holder and replace it with a new CR2032 battery. Expected battery life is 8-12 hours.



# **Ordering Options:**

Depending on its final use the LIA-1 v1.04 can be configured in various ways when ordering.

### **Multi-board Systems:**

Multi board systems (2-10) can be created upon request. To synchronize multiple boards, communication wires are run between each LIA. There is a 'master' LIA and one or more 'slaves'. The 'master' acts identically to a 'stand alone' LIA in every way. In a multi board system the 'master' sets the color and mode of all connected LIA's, but each chooses pattern independently. They work together while maintaining individuality. The network connections can be specified with the communication wires soldered in place, removable by connector, or bare for soldering after installation.

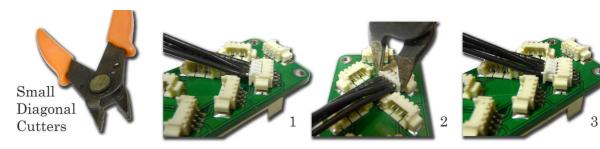
### **Special Software:**

All LIA software was developed in house with an emphasis for customization. Special modes, patterns, sequences, colors and behaviors are all possible at minimal cost.

### **Care Instructions:**

### **Unplugging Connectors:**

Use a small tool when unplugging any connector, pulling directly on the wires will damage the plug. Jewelers pliers or small diagonal cutters work quite well for this purpose. The first 1mm of travel requires extra force because of a detent designed into the shape of the plug. Once the detent is passed the plug removes easily.



### **Cleaning:**

LIA can be cleaned. Use high concentration (+70%) rubbing alcohol (isopropyl) on a q-tip or paint brush to clean the circuit board and connectors. Do not submerge the microphone in liquid. Allow LIA to fully dry before use.

#### **Storage:**

When LIA is unused for more than a week remove the battery and store separately.

# **Support:**

For questions, repairs, free software upgrades, and support contact: support@jopeldesigns.com