

MULTI-FUNCTION DEMONSTRATOR

v1 — July 28, 2022

The Loomia Multi-function Demonstrator shows multiple functionalities in one part. This sample demonstrates heating, white LED integration, RGB lighting integration and mechanical switching. The entire unit operates off a 5V power bank.



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BASIC CHARACTERISTICS

Typical Properties

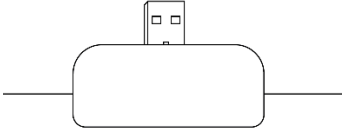


Property	Value
Dimensions (L x W)	215.90mm x 208.74 mm
Operating Voltage	5 V
Current	Standby: 7mA LEDs full on: 380 mA LEDs blinking average: ~60mA LEDs fading: 7 to 160 mA Heater on: 1.57 A (peak) Heater on and LEDs full on: 1.90 A (peak)
Insulation Material	Thermoplastic Polyurethane (with options for specific use cases)
Conductor	Proprietary (multi-metal)
Control	Loomia Custom Board with USB A male connector
A-surface Options	PU Leather; 3M adhesive, Wood Veneer

Performance

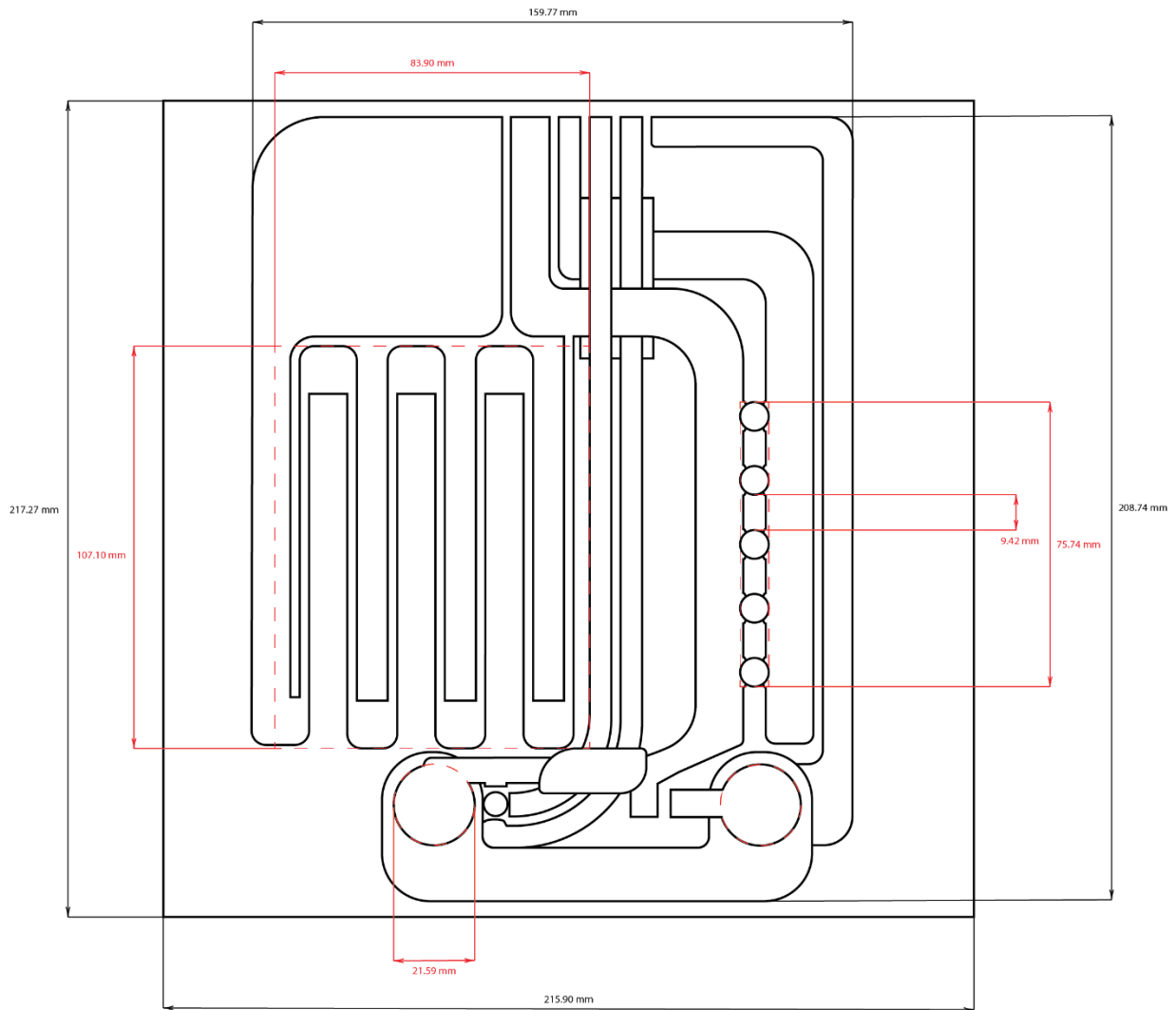
Switch Operating Force	5 lbf – 20lbf
Switch Durability	10,000 presses

Use:

To use the demonstrator, follow the instructions below:

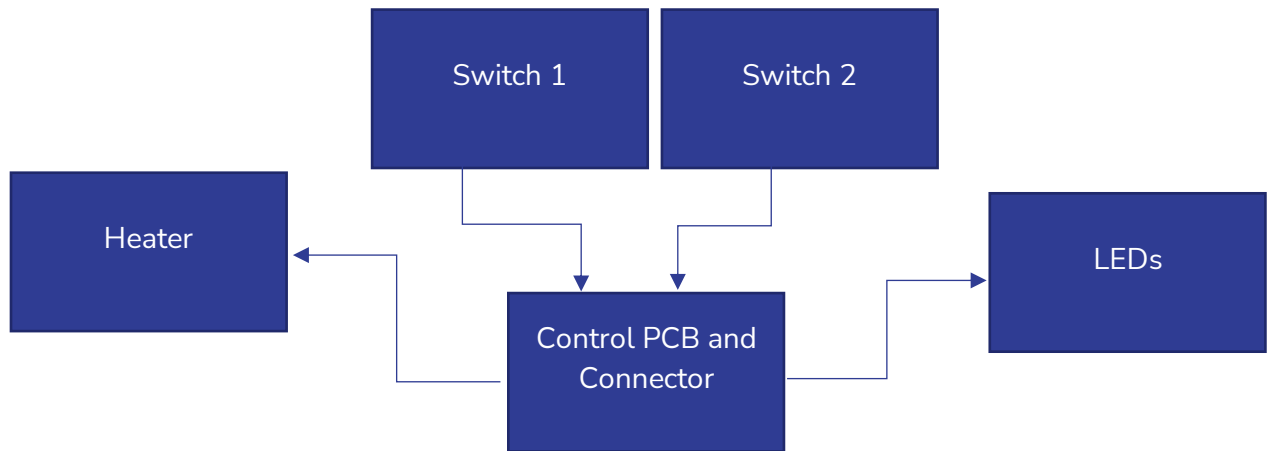
<p>Step 1</p>	<p>Plug the demonstrator into a 5V and 2A power source. This can be a power bank or your computer USB port.</p> 
<p>Step 2</p>	<p>Press the temperature switch to activate heating. One press will turn on a red LED to show that the heater is warming. Press the switch again to turn off the heater.</p> 
<p>Step 3</p>	<p>Press the LED switch to activate lights. Lighting has 3 modes. The first press is static on mode. The second press is blinking mode. The third press is breathing mode. Press a 4th time to turn the lights off.</p> 

Technical Drawing



LOOMIA TECHNOLOGIES		
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PART NAME		
Multi-Function Demonstrator		
INTEGRATION TYPE		
N/A		
DWG NO.	SCALE	DATE
00002	0.54X	Jun 7, 2022
REV.	CHANGE DESCRIPTION	
A	N/A	

Block Diagram



CUSTOMIZATION

We understand that for certain applications, an off-the-shelf component is simply not compatible. Our patented Loomia Electronic Layers (LEL) can also be customized to suit a variety of needs. Please contact us for more details about this offering.

⚠ CAUTION AND NOTICE

- Do not wash
- Do not cut
- Do not disassemble
- Do not sew outside of allowed sew boarder
- Do not expose to temperatures above 150°F
- Use care when soldering. Long exposure to heat will cause delamination
- Do not solder on top of a textile
- For prototyping only. All data is approximate, and these parts are not designed for production use
- Not recommended for repeated use. Sticking and de-sticking or desoldering may cause damage and affect performance
- Loomia parts are produced by hand. There can be significant variation between units. Please use this data only as a reference, as your part's exact values may differ