



## Ladybug LB-102 PORTABLE MIXER

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The *Ladybug LB-102 Mixer* is an inexpensive (\$100), compact audio mixer, focused on the needs of beginning and intermediate square dance callers. It works with all powered speakers (those that have a built-in amplifier).

Add a dynamic microphone (\$80), 2 XLR cables (\$10 ea.), and an Alto TX308 powered speaker (350W, \$120), to can provide high-quality sound for up to 4 squares for about \$225. Or, swap in an Alto TS408 (2000W peak, \$250), and handle up to 8 squares for about \$350.

One 9 volt battery provides power for months of dances, and the Ladybug's small size makes it easy to carry.

The entire design is under an Open Source License, so that anybody can modify it to fit their specific needs.



- 2 Music Inputs (1/8" stereo inputs)
- 2 Combo Mic Inputs (Lo-Z XLR or Hi-Z Hilton™-compatible 1/4" plug)
- Remote Volume Control Input (20KΩ Hilton™-compatible 1/8" plug)
- Low-noise Balanced Output (XLR)
- Separate Music (L) and Voice (R) out (1/8" stereo jack)
  - Music-only for a monitor speaker, or use Voice-only for hearing assist
- Uses a single 9V battery
  - Amazon Basics Alkaline (\$1.50): about 170 hours
  - Tenergy Lithium (\$7.00): about 300 hours
  - USB-rechargeable Lithium (\$7.50): about 100 hours per charge
- Low noise: -80dBfs
- Wide Bandwidth: Music 20Hz-20KHz, Voice 50Hz-20KHz
- Small size: 6.9"W x 2.5"H x 3.75"D (175 x 65 x 95 mm)
- Light weight (with battery): 9.1oz (260g)
- Open Source Hardware, Software, and Mechanical Design



Follow the project progress at:

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<https://github.com/mpogue2/ladybug-mixer>