About Ears

Our take on Tom Whitwell's *Mikrophonie* module, **Ears** is a perfect match for physical synthesis modules like Rings or Elements, but it can also be the gateway between external audio sources and your modular system.

Installation

Ears requires a **-12V / +12V power supply (2x5 pin connector)**. The ribbon cable connector must be aligned so that the red stripe of the ribbon cable (-12V) is on the same side of the module's power header as the "Red stripe" marking on the board. The module draws **5mA** from both the +12V and the -12V supply rails.

The full manual can be found online at
mutable-instruments.net/modules/ears/manual

For help and discussions, head to
mutable-instruments.net/forum

Mutable
Instruments

Ears

Contact microphone

A. Gain control, 0 to 40dB (loud! may cause clipping).

B. Contact microphone.

1. Hi-Z Audio input. Amplifies an external source. Patching a cable here disconnects the contact microphone.

2. Audio output. The red LED indicates clipping.

3. Envelope CV output. The white LED indicates the envelope CV level.

4. Gate output. Emits +8V when the envelope exceeds a threshold. Indicator: orange LED.

The jumpers at the back of the module adjust the response of the envelope follower and gate detector.

Envelope Follower	Gate Detector
Attack / Release	Threshold
fast	1V
medium	2V
slow	4V

The last setting is obtained by removing the jumper.