

Features – Version 2

LEARNIR, the Advanced Infrared learning device includes:

- Unique FUZZY Clean
- Unique signal Auto-clean
- Constant current transmission with Vishay IR emitter/led.
- Additional noise suppression circuitry for Receiver.
- High power IR output.
- Integrated USB Serial Interface
- Clear enclosure (optional)
- Range: 2-20m(rx), 10m+(tx)
- Single IR receiver design.
- Dedicated Windows app for updates, configuration, Learning, IR sending.
- Graphical signal display.
- Unique LIR encoding scheme with advanced signal compression.
- Alternative RAW output mode configurable.
- Automated Key-Set learning support.
- Learn, Build and manage your own signal libraries.
- Firmware updates via Windows application
- Bonus Features:
 - o IR Jammer
 - Time Lapse IR sending
 - Serial over IR (Tx)
 - Send Test Signals
- Reset via USB
- Comprehensive User Guide and setup instructions
- Thumb drive form factor
- Tight integration with ANALYSIR

LearnIR Advanced Infrared Learner Version 2



LEARNIR Overview V2

LEARNIRv2 is the leading tool available for `learning' infrared remote control signals. The most hi-tech & feature rich solution available.

LEARNIR allows makers, hobbyists and professionals to record individual or sets of IR signals and store them in libraries for later use. In addition, captured signals can be replayed immediately to confirm the validity of the learned signal. It is what we believe to be the most feature rich IR learner available today. LearnIRv2 features improved firmware that also includes our new & unique **FUZZY Clean** technology with capture accuracy of a few uSecs. In addition, the 'Auto-Clean' feature means you can achieve perfect timings automatically, for a list of supported protocols, which can be easily extended for all of your signals & protocols. Every captured signal is immediately displayed in graphical format for real-time debugging, thus ensuring perfect signals are captured every time.

What is LEARNIR

LEARNIR V2 is made up of 3 components:

- The LEARNIR Windows PC application.
- The LEARNIR USB module.
- Integrated Serial USB for communicating with the PC
- A clear & compact enclosure (optional).

 ${\sf LEARNIR}$ is an excellent companion device for ${\sf AnalysIR}$ and other $3^{\sf rd}$ party Infrared solutions

New features in Version 2

- Updated firmware with accuracy of just a few uSecs.
- Updated Windows Application
- Our new and unique on-device FUZZY Clean technology
- Optional output in LIR or RAW format.
- Upgraded microcontroller.
- Integrated Serial USB capability
- Optional Clear enclosure in thumb drive form factor.

www.ANALYSIR.com

What's Included

A copy of LEARNIR software, via download. No registration is



required as the application will only work with official LEARNIR devices. Communication with the PC is via the integrated Serial USB Interface. There is no need for additional USB adapters, IR receivers or emitters as they are already included onboard. As well as integration with its own Windows application, LEARNIR can be driven by 3rd party applications and systems. Details of

the serial interface syntax/protocol are available on request. In addition to greatly improved firmware, we also include our new & unique **FUZZY Clean** technology along with an upgraded microcontroller.

Form Factor

LEARNIRv2 comes in a new 'thumb-drive' form factor with a clear enclosure. The Dimensions are \sim 58x18x9mm (LxWxH) with enclosure.



Licensing Model & Purchase

LEARNIR, the associated firmware and Windows application are supplied under a single licence which covers both non-commercial and commercial use. You can purchase your own LEARNIR device via: http://www.AnalysIR.com/ and other outlets. LEARNIR firmware and hardware is also available for integration into 3rd party systems (e.g. SoC). Custom implementations are possible for bulk orders. In future we may add optional upgrades to emulate 3rd party devices and formats or custom solutions for partner companies. These optional upgrades may incur an additional fee.

Service and Support

Support is provided for LEARNIR via email or our on-line IRforum. Contact details for support are contained in the user guide. Support is available only using your registered email address. Major and minor version upgrades (Firmware & Windows application) are made available at no additional charge as part of the initial purchase price, for a minimum of 2 years.

A MAKEIR Kit

LEARNIR is part of the MAKEIR series which comprises a range of innovative infrared remote control kits for makers, hobbyists and professionals.



AnalysIR is an advanced analyser & decoder designed by ANALYSIR which offers tight integration with LearnIR for advanced users.

Additional Information

For more information visit http://www.ANALYSIR.com/ or contact us directly using the contact information below.





Minimum Requirements

- Windows PC with latest updates and .Net
- Bundled LEARNIR windows application for configuration and software updates.
- Many users run using VMs
- Infrared Remote Control for learning.
- Optimised for 1366x768 display resolution or greater.

Infrared Innovations

LEARNIR features a number of new Innovations:

- `LIR' encoding mechanism, which stores the longest IR signals in limited SRAM. Long signals are supported with over 2000 pulses.
- An advanced compression algorithm makes for efficient storage and rapid communication of signals.
- Version 2 firmware delivers additional features along with greatly improved accuracy of just a few uSec.
- Our new & unique FUZZY **Clean** technology delivers greatly enhanced signal accuracy when learning.

Modulation Frequencies

LEARNIR supports all of the common send & receive modulation frequencies: 20-60kHz including 30kHz, 33kHz, 36kHz, 38kHz, 40kHz, 56kHz with Tx support for the rare 455kHz frequency.

IR formats

LIR, Pronto, RAW plus a comprehensive range of industry formats via ANALYSIR. Future upgrade options may include 3rd party device emulation & custom firmware.

About ANALYSIR

ANALYSIR is committed to providing leading edge Infrared solutions & technology to our Maker, Hobbyist, EDU and Professional users globally.

www.ANALYSIR.com

ANALYSIR, Designed in Dublin, IRELAND. Email: info@ANALYSIR.com Support: support@ANALYSIR.com Web: http://www.ANALYSIR.com