PLANET DEBUG

Secure, driver-free remote embedded lab in NECTO Studio IDE

24/7 REMOTE BOARD FARM WITH LIVE-STREAMING

POWERED BY:

CODEGRIP
PROGRAMMER/DEBUGGER

NECTO STUDIO
IDEAL CODING

MIKROE
Time-saving embedded tools

Why Planet Debug?

Because this is the future of embedded development

- ✓ Secure and private: SSL-encrypted access, only the HEX file is transferred – your source code stays local
- ✓ Real hardware access – not a simulation, interact with dev boards and peripherals in real time
- ✓ Live camera feedback – observe real behavior: LED blink, TFT refresh, sensor data in motion
- ✓ Easy access: works reliably over standard WiFi – available anytime, anywhere
- ✓ Flexible: multiple boards and architectures supported
- ✓ Time-saving: no shipping, customs, setup or lead time
- ✓ Low-cost, scalable model – $4/day
- ✓ Instant silicon adoption: let users evaluate your MCU on day 1
- ✓ Green: reduce hardware waste and energy use
- ✓ Equal opportunity for all — no financial or location barriers

PLANET DEBUG

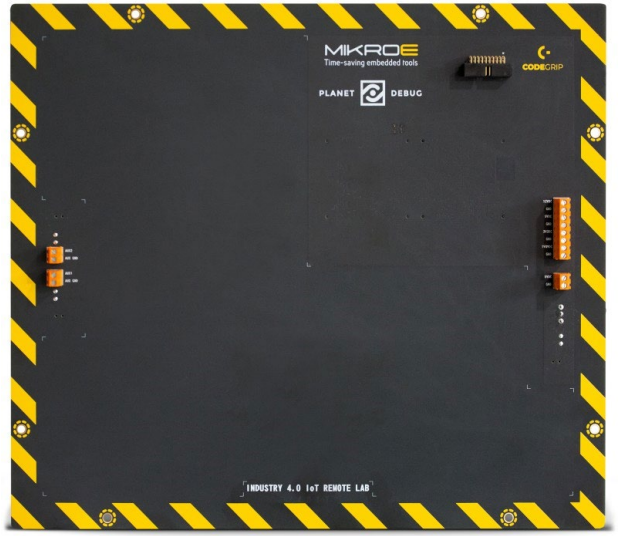
MIKROE
Time-saving embedded tools

How do we do it

CODEGRIP, dev board, peripherals, camera, NECTO Studio: all set

- Download NECTO Studio → Click Planet Debug → Select a setup → Start coding
- Powered by CODEGRIP, the world's first programmer/debugger over Wi-Fi, and fully integrated into the NECTO Studio IDE, Planet Debug lets you program and debug real hardware remotely — your code, running in real time, no simulation
- Live-streaming camera allows you to see your code in action — LEDs blinking, sensors updating, screens refreshing — all inside the NECTO Studio IDE

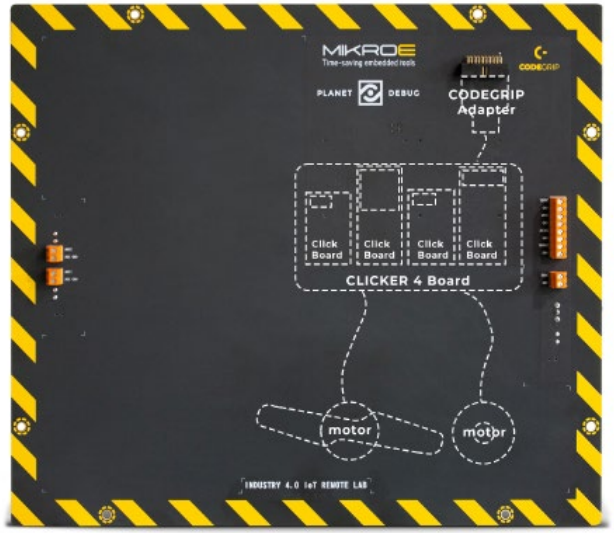
PLANET DEBUG



Embedded lab backplane front

Embedded lab backplane back

Built-in CODEGRIP programmer/debugger



Embedded lab backplane in use

Try before you buy

200+ available setups free of charge

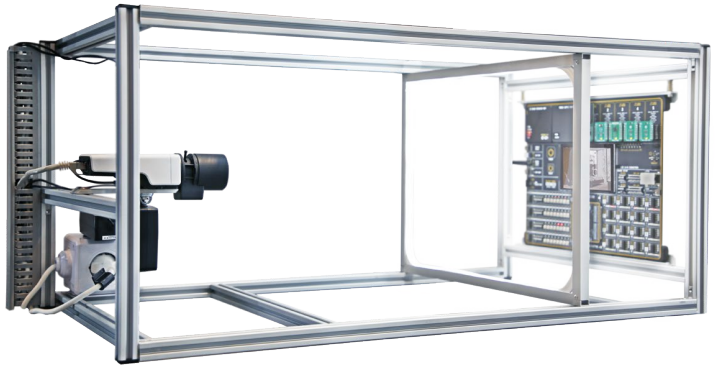
- Instantly access 200+ ready-to-use setups hosted worldwide
- No registration, no fees — just open NECTO Studio and get started
- Try before you buy – no more wasted money on tools that don’t fit your need, experience the hardware before making a commitment

PLANET DEBUG

Your personal remote embedded lab

Make your own board farm

- Replicate Planet Debug in your company or university using a standardized, customizable hardware frame, or build your own
- Add any NECTO-supported dev boards on Planet Debug backplane and create your setup
- Use NECTO Studio IDE to connect and manage your board farm from anywhere, you are admin on your location
- Ideal for internal development, remote learning programs, and multi-site teams



PLANET DEBUG

MIKROE
Time-saving embedded tools

Planet Debug for education

One global classroom

- Planet Debug redefines embedded education — providing students and educators with remote access to real, professional-grade hardware from anywhere, without the need for costly setups or timely hardware setup connection issues
- Collaborate in real time — across labs, classrooms, and continents in real time
- Equal opportunity for all — no financial or location barriers
- Ideal for universities, online courses, and remote workshops

PLANET DEBUG

MIKROE
Time-saving embedded tools

Let your silicon become part of Planet Debug

Make your product accessible from day one

- Join the Planet Debug ecosystem by requesting a branded setup featuring your MCU, peripheral, or evaluation board
- Once supported in NECTO Studio, MIKROE deploys your branded setup on Planet Debug, including your logo, part number, application tags, etc.
- Users anywhere in the world can evaluate your product on launch day
- Hosted and maintained by MIKROE: zero shipping, zero-support infrastructure

PLANET DEBUG

MIKROE
Time-saving embedded tools

Why choose Planet Debug?

Planet Debug vs. Traditional Setups vs. Simulators

	Traditional Hardware Setup	Virtual Simulator	Planet Debug
Access to real hardware	Yes, but only if physically available on-site.	No – simulation only.	Full access to real boards and peripherals through live remote interaction.
Visual feedback	Yes, locally. No remote visibility.	No visual feedback – virtual representation only.	Real-time camera view – see LEDs, TFT screens, sensor behavior as it happens.
Security	Depends on local setup; sharing hardware adds risk.	Local-only – Limited to simulation boundaries.	SSL connection; only HEX file is transferred, source code stays local.
Cost	High – hardware purchase, shipping, customs, maintenance.	Low license - without real-world value.	Free for standard setups, only $4/day for custom ones.
Time to access	Delayed – requires delivery, installation, configuration.	Fast – instant install, but no hardware.	Immediate – use setups 24/7 without waiting.
Maintenance overhead	High – user must update and maintain all hardware and software components.	Minimal – managed by software vendor, but no physical aspects.	None – MIKROE maintains all remote setups.
Educational suitability	Limited – depends on physical presence, high cost per student.	Basic – useful for theory, not practice.	Ideal – students access real boards remotely, no physical lab required.
Configuration flexibility	Low – hardware changes require physical replacement and setup.	Moderate – within simulator limits.	High – request custom setups or build your own Planet Debug station.
Scalability	Poor – scaling requires buying and deploying more hardware.	Scales easily, but lacks realism.	Excellent – one setup can serve global users, supports large educational groups and remote teams.
Real-world validation	Yes, but only locally. No remote collaboration or visibility.	Not accurate – lacks physical behavior fidelity.	Complete – code is tested on real, physical systems with realistic behavior.

PLANET DEBUG

MIKROE
Time-saving embedded tools

Try Planet Debug now

Download NECTO Studio

Version 7.2.2

NECTO Studio for Windows

Windows 10 or later

Version 7.2.2

NECTO Studio for MacOs

macOS 12 or later

Version 7.2.2

NECTO Studio for Linux

Ubuntu 22.0.4 or later

PLANET DEBUG

MIKROE
Time-saving embedded tools

Thank you for your attention.