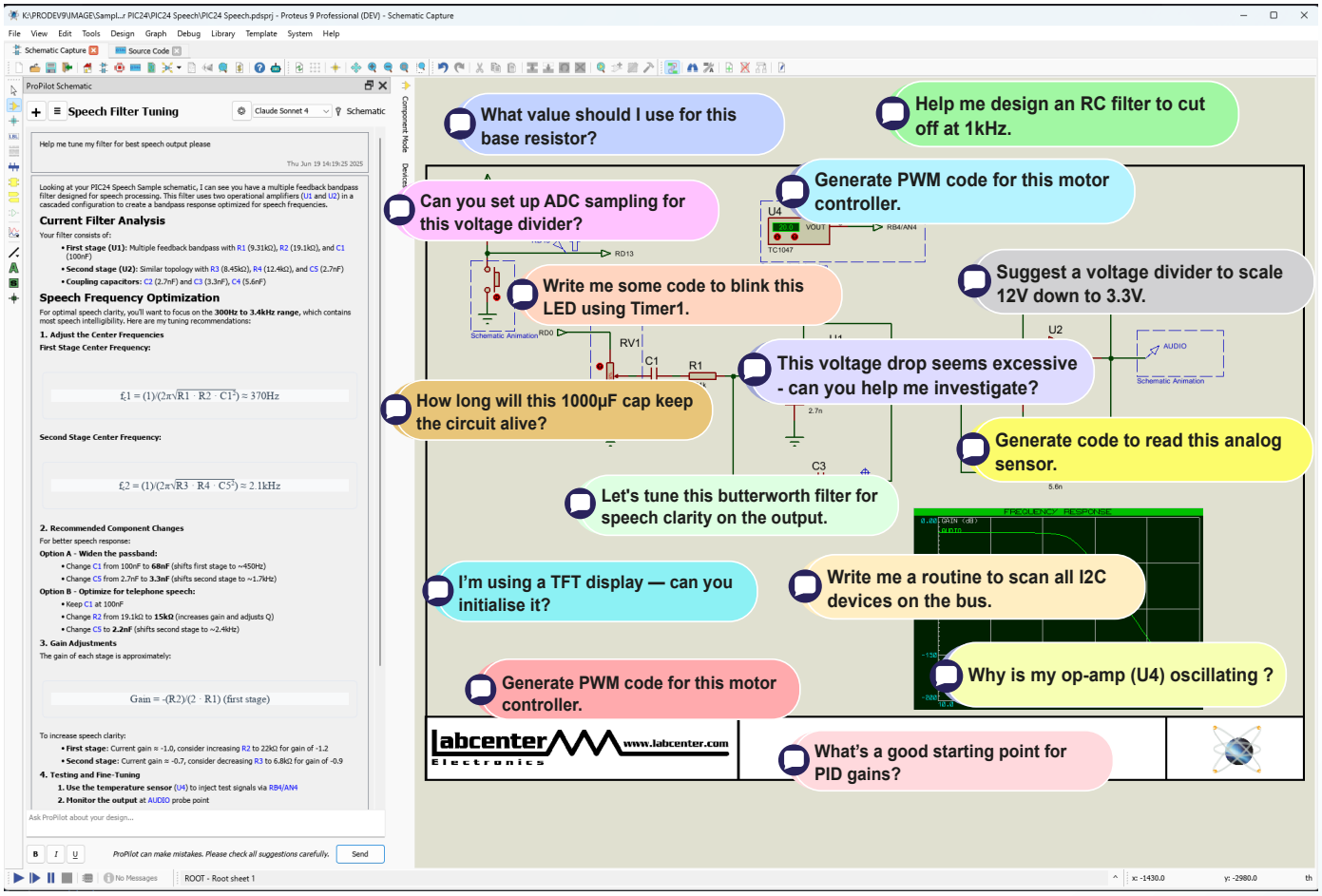
PROTEUS ProPilot

Proteus ProPilot - Your EDAi Co-Designer

- Multi-provider AI chat with LLM model support.
- Real-time schematic analysis and design guidance.
- Contextual Proteus help built into the assistant.
- Simulation-aware debugging with graph results data.
- Mathematically validate circuit design decisions.
- Embedded code generation integrated with VSM Studio.



"ProPilot brings context-aware AI directly into Proteus, combining schematic insight, simulation data, and embedded code generation to accelerate design, improve quality, and boost productivity across the entire workflow."

PROTEUS ProPilot

Flexible Chat window supporting multiple and custom LLM providers.

Design-driven AI coding with refactoring and error diagnosis.

DESIGN ASSISTANT

ProPilot helps you make better design decisions directly from your schematic. It can explain component roles, assist with part selection, and guide you through tasks like filter design, level shifting, or decoupling strategies.

Trying to suppress noise on a sensor input? ProPilot can suggest filter topologies and calculate resistor/capacitor values. Need help selecting a MOSFET for a power switch or understanding whether a pull-down is needed? It provides practical, circuit-aware advice drawn from your design.

By acting as an on-demand advisor with knowledge of your schematic, ProPilot helps you reduce mistakes and design with greater confidence.

CODING ASSISTANT

With visibility of the schematic, ProPilot knows which peripherals you're using and how they're connected to the microcontroller, including specific pin assignments. It can generate, edit, and refactor embedded code directly in the VSM Studio IDE, using styles like Doxygen if needed. Compiler output is visible, so ProPilot can identify and fix syntax or linker errors automatically. Whether you're driving PWM for motor control, setting up I2C to a sensor, or configuring a TFT display, the code it creates matches your design. Need help with a PID loop or ADC sampling? ProPilot provides working code fragments tailored to your MCU. This tight link between hardware and firmware speeds up development and eliminates guesswork early on.

DEBUGGING ASSISTANT

ProPilot can interpret simulation graph results, using these alongside the schematic and source code to provide context. It can also process the simulation log, combining both data sources to support detailed diagnostics. It helps pinpoint issues like missing waveforms, timing conflicts, or unexpected levels by linking effects to likely causes in hardware or code. Whether you're checking SPI timing, sensor responses, or stuck outputs, ProPilot guides your investigation. With visibility of both waveform data and design structure, it becomes a powerful assistant for simulation-based debugging, test, and tuning.

MULTIPLE MODELS

ProPilot supports a wide range of AI models, including ChatGPT (OpenAI), Claude (Anthropic), DeepSeek, locally hosted models via Ollama, and even custom endpoints. You choose the provider that fits your needs — whether that's power, privacy, cost or performance.

For hosted models, simply sign up with your chosen provider, obtain an API key, and connect it in Proteus. Most offer free usage tiers or credit-based billing, giving you control over cost as well as capability.

With full support for cloud and local AI, ProPilot puts you in charge, making advanced assistance accessible on your terms.

Intelligent analysis of your circuit designs and schematics.

Expert guidance on Proteus features and workflows.

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