Technical Article

Geppetto™ *Embedded Design Tool Reduces Costs, Simplifies Connectivity and Manages the Supply Chain for Industrial and Maker Markets*

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The Geppetto™ design-to-order (D2O) tool, stands as one of the newest innovations for custom embedded design. Developers can build custom expansion boards with Gumstix COMs or other supported third Party COMS or single board computers (SBC), quickly and easily, using an intuitive web-based interface. Risk, cost and design time are reduced as Geppetto encompasses the entire process of design, supply chain integration and manufacturing automation in one intuitive web-based D2O platform. Custom boards can be designed in hours and shipped production ready in 15 business days with no minimum order.

How It All Works

Geppetto includes a diverse 100 plus module library, and recently announce, support for third-party computing modules in its D20 platform. In this initial release, Texas Instruments (TI) third-party Computer-On-Modules (COM) including BeagleBone Black, and Critical Link MitySOM 335X are now available for custom expansion board development. Second phase releases will support additional third party COMs.
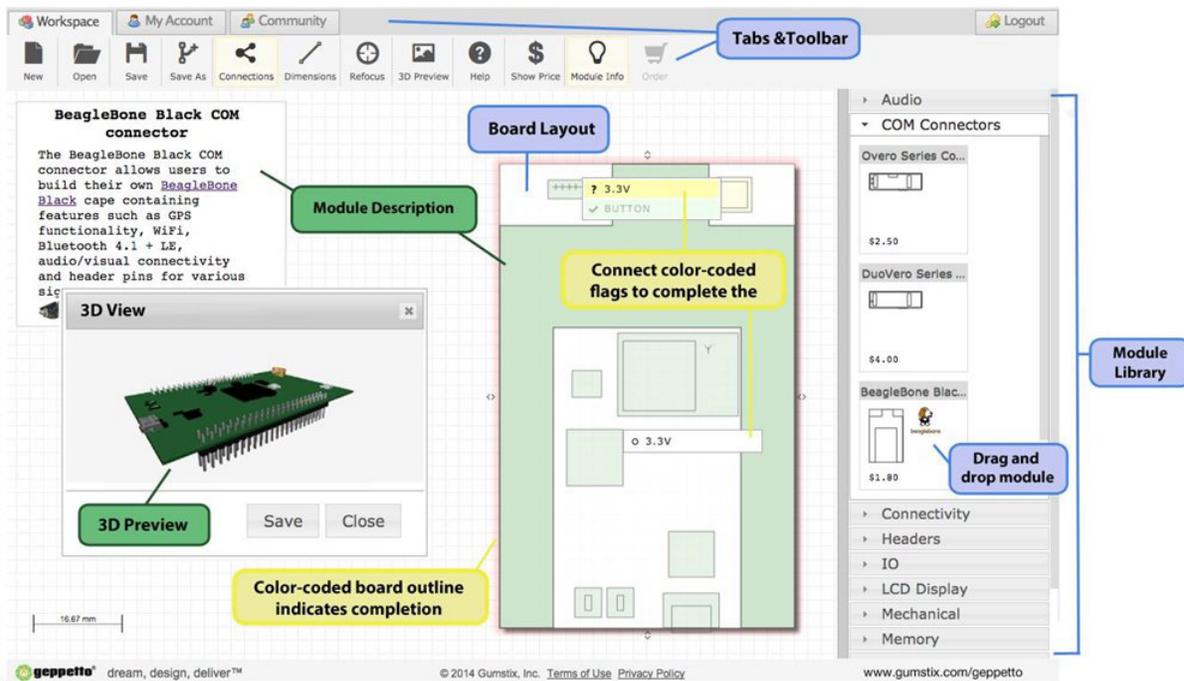
Geppetto users can choose to design a board from the ground up or modify an existing board by easily adding features such as the TI WiLink ™ 8 combo-connectivity module (Wi-Fi® + *Bluetooth* ®) which can be used to connect home and building automation, smart energy, gateways, wireless audio, enterprise and wearables to the cloud while enabling control from almost anywhere in the world.

The addition of third-party computing options to Geppetto allows designers to prototype with their choice of supported COMs and design a custom expansion board online using drag and drop modules like Wi-Fi, audio, LCDs, sensors, global navigation (GPS) chips, or USB connectivity to their custom specifications.

After the designer completes their online design, they simply click to order a market-ready device. This is a significant advance in custom design options for engineers and makers at all levels targeting high volume production in the industrial, Internet of Things (IoT) or consumer markets. The Geppetto automated manufacturing cycle completes the PCB routing, fabrication, sourcing, component purchasing, assembly and board bring up. Automation of the supply chain reduces engineering and manufacturing time and cost.

Geppetto D2O's New Level of Customization Earns 2015 Best of Custom Design

Geppetto Design-To-Order (D2O) is being honored as the 2015 Best of Custom Design by Bill Wong, Embedded/Systems/Software Editor at Electronic Design (ED) for its expansion in support for third party platforms such as BeagleBone Black and stand-alone microcontrollers in addition to Gumstix COM modules. Impressing ED and making Geppetto the ultimate winner were other features such as the need for no routing – that part of the PCB is automatic! Take a GeppettoD20 free test drive.

Additional Resources
- WiLink 8 combo connectivity modules
- Geppetto design-to-order (D2O) tool

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