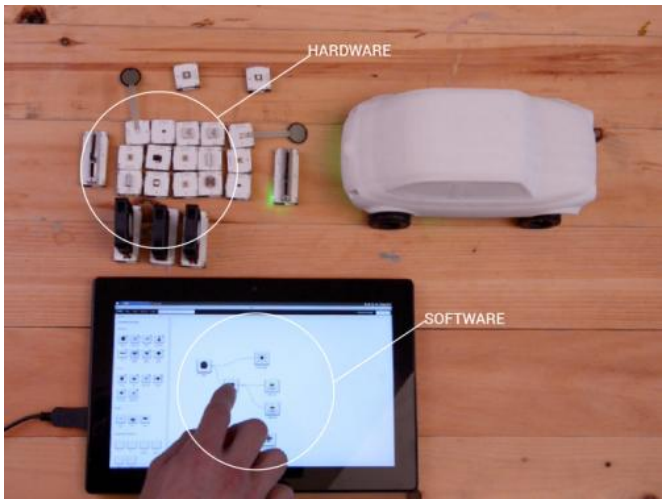
Kickstarter project SAM kit helps teach hardware system coding

30 September 2014, by Bob Yirka



SAM Labs, a London based startup has created a Kickstarter project that looks to take do-it-yourself project making and teaching how to program digital hardware, to a new and simpler level. Their SAM kits allow for physically connecting individual hardware components together and then using an intuitive software interface to create software that makes the newly created hardware device work as desired.

Imagine physically connecting a light sensor to a Bluetooth enabled text generator—when the sensor senses a light being turned on or off, it sends a message to the text generator which in turns sends a text message to someone who wants to know about it. Then imagine being able to generate the software that allows it all to happen, with an easy to use drag-and-drop user interface. That's the idea behind SAM—not only does it allow for the construction and programming of simple systems, it teaches how to do it in the process by generating the code and displaying it on a computer screen. As the kit is used to create more things, the user begins to understand the code that is generated, especially as the devices they create become more intricate by daisy-chaining or adding parts not from the kit. When they feel comfortable, they can then start modifying the code in whatever ways they wish, or at some point write the code themselves. It's an innovative idea, allowing people to dip their toe into hardware programming to see if they like it with very little investment.

The SAM team describes it as a way to allow anyone to create games, toys or to gain a head-start on the coming Internet-of-things. Instead of buying products that monitor and send messages from our refrigerator, oven, thermostat or hot-water heater, we could build our own, customized to our own specific needs or desires—all while learning some very valuable skills. Component choices in the kits include sensors, lights, buttons, sliders, a cloud module, dongle and cable.

The team is looking for £50,000 to help them further develop their idea, and to build production facilities. There are multiple pledge levels (ranging from £45 to £400) depending on how many components are desired (and offering a hint as to how much various kits will cost once they are made available for sale)—the software is free—the team has suggested it will likely be made open access at some point.

More information:
www.kickstarter.com/projects/1 … ected-electronics-ki

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