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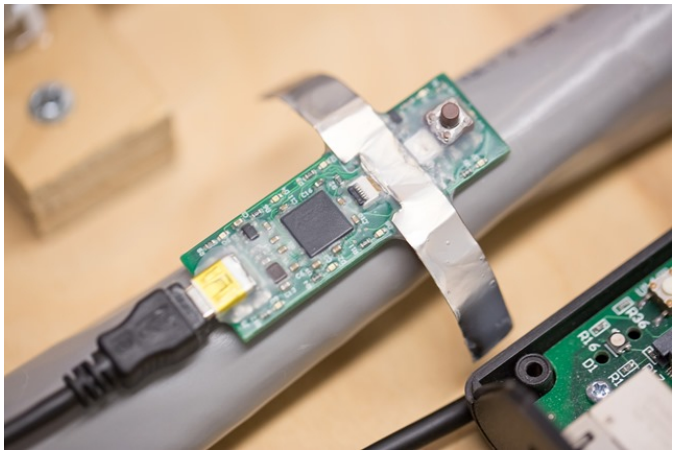
MIT joins forces with the US Office of Naval Research (ONR) to develop a cheap and portable system to monitor how much electricity household appliances, lighting fixtures and electronic devices consume.



The system consists of 5 small sensors placed above or near power lines coming into the house. The sensors pinpoint each light or appliance based on power use, before pushing the data to a companion app in realtime. Each sensor is self-calibrating, and can pinpoint the strongest electrical signals. In turn the system can distinguish between each type of light, appliance or device based on unique signals.

The result allows users to check the power consumption of a specific device during a specific time, and as such can reveal when a refrigerator goes into its defrost power or how regularly a water heater switches on and off each day.

"There are already ways to monitor household energy use, but they involve hiring a licensed electrician or cutting through power lines or pipes to attach expensive, specialised equipment," MIT engineering professor Steven Leeb says. "With our system, you can install non-contact sensors using zip ties or even velcro, and use signal processing to measure power consumption. It's fast, easy and much less expensive. It also could serve as a way to tell when equipment needs maintenance or replacement."

Of course, a good number of regular customers would be interested in such a system and its granular power consumption statistics, especially in these environmentally aware days. The system is currently going through testing at the US Navy, since it can also find use on ships, and the Navy also wants to save at least some power when on the water!

Go Power Savings: ONR Research Helps Navy Curb Kilowatts