This year TI was a sponsor of the IoT World Hackathon at the IoT World Conference in San Francisco. Makers from around the country came together to spend two days designing and implementing Internet of Things (IoT) applications using Internet connected hardware from TI and various cloud providers.

The winning team came from Room 5, a San Francisco-based company that specializes in helping their clients develop smart products to connect to the IoT. The Room 5 team created a smart, Internet connected trashcan called iTrash, based on a Roomba® iRobot®. The trashcan is controlled with TI's ultra-low-power MSP430F5529 LaunchPad and low-power SimpleLink™ Wi-Fi® CC3100 BoosterPack, as well as a Seeed Studio Grove starter kit for LaunchPad. The iTrash smart trashcan is able to automatically take itself to the curb when it is full and return itself to the house when it has been emptied. Also featured on the iTrash design were Grove sensors from Seeed Studio. These sensors enable the iTrash to detect leaks, open the garage door and detect garbage can placement. iTrash connects to a MQTT Server with the CC3100 BoosterPack to log sensor data and receive control commands via Wi-Fi.

The Room 5 team saw the iTrash concept as a way to reduce unnecessary stops by garbage trucks which will make trash pickup both more efficient and economical. This was the team’s first time developing on TI hardware and we were told that they were impressed with how easy it was to implement an Internet connected microcontroller system based on the Launchpad Ecosystem, especially with Energia’s IoT specific examples and APIs.

A big congratulations to the Room 5 team for winning the IoT World Hackathon with their iTrash smart trashcan design! To start developing your own IoT applications with TI’s ultra-low-power MSP430™ and low-power SimpleLink Wi-Fi products, visit the links below to get additional information and to order samples.

- SimpleLink Wi-Fi CC3100 BoosterPack: Learn more, order samples
- MSP430 MCUs: Learn more, order samples
- Energia: Learn more
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