

## Why Smart Cities Should Use Smart Sensors

A new project is underway along part of Toronto's waterfront that aims to build a smart city. Assisted by Sidewalk Labs, the project's focus is to incorporate smart technologies into the infrastructure. Although details about which smart technologies will be used for the project are limited, it has been stated that Sidewalk Labs plans to incorporate sensor-based technologies to assist in crowd and traffic management as well as technologies necessary for the future use of self-driving cars and vehicles.

## Why We Need Smart Cities



Cities are the main platforms where people live, do business, and provide services. They have a major impact on the economic and social development of nations. Cities around the world currently consume approximately 75% of global primary energy and emit between 50% and 60% of the world's total greenhouse gases [according to UN Habitat](#).

Smart cities use information and communication technologies (ICT) to provide interactive, efficient, and safe infrastructure. They use the digital sphere to maximize the economy, society, environment, and welfare. They also act as facilitators in the shift towards more sustainable behavior among companies, administration, and citizens/users, and seek to improve the processes of the cities themselves and their inhabitants.

Studies have shown that smart cities can help reduce public spending by better management of public services, increase quality and efficiency of services, promote innovation and social development, provide real-time information necessary for enhancing awareness of citizens and the environment in which they live, and facilitate the identification of needs, providing support in important decision making.

When it comes to Sidewalk Labs' Toronto based project, one of their objectives is to create a sustainable city with low a carbon footprint and lower, affordable living expenses. Although the company hasn't released all of the details of the project to the public, what they have shown is a great initiative towards more sustainable and innovative cities that could set a trend for other development projects around the world.

## Why Smart Cities Need Smart Sensors

It only makes sense that cities designed for intelligent networks and platforms be designed with smart IoT technologies. When a project aims to increase efficiency in all areas of city life, it should start at conception with the implementation of smart sensors and technologies during the building process. Sensors such as [SmartRock2™](#) increase safety, quality, and efficiency on the jobsite much like traffic sensors will improve circulation and safety of citizens.



SmartRock2™ is a wireless temperature sensor for monitoring concrete strength during the curing process. These sensors utilize IoT technology and help general contractors and workers improve efficiency by delivering real-time strength and temperature data. Having this type of data at their fingertips enables them to know exactly at what point their

concrete is cured and ready to move to the next step in the project. The sensors allow contractors and project managers to monitor project quality and make necessary adjustments in real-time to improve overall strength and safety of structures.

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