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**Keywords:**

IoT,  
Smart Homes,  
Raspberry Pi,  
STEM

**Learning areas:**

Design & Technology,  
Digital Technology,  
Integrated STEM

## IoT in the Classroom: Smart Homes

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The Internet of Things (IoT) has been identified as one of the key drivers of technological disruption in the 21st century alongside Cloud Computing, Artificial Intelligence and Big Data.

At its core IoT is the connection of different objects via the internet. These different objects are incorporated with sensors in order to facilitate the collection, sharing and use of data in real time. Already Industry, Government and Entrepreneurs are leveraging the capability of IoT to create innovative solutions to complex problems. Local governments around the world are installing IoT devices throughout their cities to measure air quality, monitor the health of trees and manage parking space.

This workshop will give Educators a hands-on experience of IoT through the use of a Raspberry Pi computing device known as pi-top[4]. Through the example of a Smart home, Educators will build and program their own miniature smart home. The focus of this session will be a hands-on experience of IoT through the use of the pi-top[4]. Educators will gain a clear understanding of IoT and have practical experience that they can then apply to their STEM projects.