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## ONLINE COURSES - BEGINNERS

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### Code.org

<https://studio.code.org> - beginner courses in coding

<https://code.org/learn> - hour-of-code tutorials for beginners

### Code Academy

<https://www.codecademy.com/learn/python> - learn Python

<https://www.codecademy.com/learn/javascript> - learn JavaScript

<https://www.codecademy.com/learn/learn-html-css> - learn HTML and CSS

<https://www.codecademy.com/learn/learn-java> - Java programming

### Khan Academy

<https://www.khanacademy.org/computing/computer-programming> - introduction to coding using JavaScript

<https://www.khanacademy.org/computing/computer-science> - learn about computer algorithms

<https://www.khanacademy.org/hourofcode> - hour-of-code tutorials

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## ONLINE COURSES – MORE ADVANCED

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### Coursera **NOTE: some Coursera courses may require fee**

<https://www.coursera.org/learn/intro-programming> - intro to coding using Scratch

<https://www.coursera.org/learn/python> - programming in Python

<https://www.coursera.org/specializations/java-programming> - programming in Java

<https://www.coursera.org/learn/game-programming> - games programming using C#

<https://www.coursera.org/specializations/iot> - intro to Internet of Things programming

<https://www.coursera.org/learn/arduino-platform> - IoT programming in C on Intel Arduino/Genuino

NOTE: Intel development board known as Arduino101 in America, and as Genuino101 in Europe

### Linda.com

<https://www.lynda.com/C-tutorials/C-Essential-Training/164457-2.html> - C programming

<https://www.lynda.com/Android-tutorials/Up-Running-Java-Applications/94344-2.html> - Java programming

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## TOOLS FOR CODING

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### Scratch

<http://scratch.mit.edu> - online tool for coding in Scratch

### Python

<https://www.python.org/downloads> - download and install Python

NOTE: latest version is Python 3.x, however some online courses (e.g. code-academy) use Python 2.x

### Android App Development

<http://appinventor.mit.edu> - app development using Blocks

<https://developer.android.com/studio/index.html> - Android Studio development environment

### iOS App Development (for iPhone and iPad)

<http://www.apple.com/ie/swift/playgrounds> - Swift Playgrounds iPad app

<https://developer.apple.com/xcode> - development environment for iPhone, iPad, Mac, Apple TV

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## INTERNET-OF-THINGS DEVELOPMENT

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### Intel Maker Movement

<http://www.intel.ie/content/www/ie/en/do-it-yourself/maker.html>

<http://www.intel.ie/content/www/ie/en/do-it-yourself/genuino-101.html>

### Intel Genuino Development Board

<https://www.arduino.cc/en/Guide/Arduino101>

<https://software.intel.com/en-us/articles/fun-with-the-arduino-101-genuino-101>

NOTE: Intel starter development board known as Genuino101 in Europe, and as Arduino101 in America. Can purchase development board and sensor/actuator kit at Maplin, Childers Rd Retail Park, Limerick or online at <http://www.mouser.ie>

Intel Genuino101 Development Board, Manufacturer part number: GBX00005

Grove Starter kit for Genuino101, Manufacturer part number: 110020109

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## CODING CLUBS

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### Coder Dojo clubs in Limerick

<http://www.coderdojomidwest.com>

Saturdays 2-4pm in LIT

Wednesdays 7-9pm in Mary I College

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## VIDEOS TO WATCH

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Computer Coding (featuring Facebook founder Mark Zuckerberg, Microsoft founder Bill Gates, Will.I.Am and many more)

<https://www.youtube.com/watch?v=nPbIG6ceqOs>

Intel drone technology at Super-bowl half-time show (example of Internet of Things development)

<https://www.youtube.com/watch?v=OyPCNvx9hVQ>

<https://www.youtube.com/watch?v=mk7TsDNuhs0>