ARDUINO ROBOTICS COURSES 2017
For Ages 12 above

Robotics Connection Pte Ltd
#03-41, Coronation Shopping Plaza, 587, Bukit Timah Road, S’pore 269707
Opening Hours: 10.00 am to 5.30 pm (Tues.to Sat.)
Tel: 6465 0018 e-mail: admin@robotics.com.sg

Nearest MRT: Tan Kah Kee (DT8), Downtown Line. 200 meters walk

Visit us at http://www.robotics.com.sg
**What is Arduino?**

Arduino is an open-source platform used for building electronics projects including robotics. Arduino consists of both a physical programmable circuit board (often referred to as a microcontroller) and a piece of software, or IDE (Integrated Development Environment) that runs on a computer, used to write and upload computer code to the physical board.

The Arduino platform has become quite popular with people just starting out with electronics and robotics, and for good reason. Unlike most previous programmable circuit boards, the Arduino does not need a separate piece of hardware (called a programmer) to load new codes onto the board – you can simply use a USB cable. Additionally, the Arduino IDE uses a simplified version of C++, making it easier to learn to program. Finally, Arduino provides a standard form factor that breaks out the functions of the microcontroller into a more accessible package.

What You Will Learn in our courses? You will learn:

- The different varieties of Arduino boards and its applications
- What projects can be accomplished using an Arduino such in robotics, homes or workplace
- Programming / Coding Arduino boards in Scratch and C++

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## Types of courses & Fees

All courses are 2 hours per session

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<thead>
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<th>Course</th>
<th>Description</th>
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| Ard-1         | • Beginner level  
• Introduction to Arduino Coding / Programming using Scratch  
• Introduction to Basic Electronics and C++ coding  
• Connecting and programming Arduino with different electronic components such as LED (Light Emitting Diodes), Switches, resistors, temperature sensors, etc  
• Building a basic Arduino Simple Vehicle robot to move in different directions and using Touch sensors  
• $350 per person for 8 lessons                                                                |

| Ard-2         | • Beginner-II Electronics and C++ programming  
• Programming an Arduino robot for 3-sensor Line Following  
• Using Accelerometer sensors for angle detections  
• Remote Control Arduino Robot using Infra-Red sensor and Keypad for different movements  
• $350 for 8 lessons                                                                                                       |
<table>
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| **Ard-3**       | Intermediate Level  
| Arduino with LEGO Motors and Sensors. (8 lessons) |  
- For students who have completed Ard 1 or 2  
- Introduction to Bricktronics Shield and its application  
- Interfacing Arduino with Bricktronics Shield and LEGO motors and Sensors  
- Practical: Build and program an Ard-Bricktronics-LEGO project such as Mini-Tank, Clock, Chocolate-Mixer or Conveyor  
- $400 for 8 lessons  

**Ard-4**  
Internet of things (iOT)  
8 Lessons  
- For students who have successfully completed Ard 1, 2 & 3  
- Introduction to Wireless communication with Arduino using Bluetooth and Wireless network  
- Develop simple Mobile Apps to control Arduino board and sensors  
- Practical: Building and programming the SparkFun IoT Starter Kit with Blynk Board and Cayenne Mobile App.  
- $400 for 8 lessons  

**Arduino courses are only available at the following days and time**  
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<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Registration Methods</th>
<th>Payment Methods</th>
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<tbody>
<tr>
<td>Tuesdays</td>
<td>7.00pm to 9.00pm</td>
<td>- By Phone: 64650018, Mon to Fridays, 10 am to 5.30pm</td>
<td>By Cash, Cheque or NETS</td>
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<td>Fridays</td>
<td>3.30pm to 5.30pm</td>
<td>- By online web: <a href="http://www.robotics.com.sg">www.robotics.com.sg</a></td>
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<tr>
<td>Saturdays</td>
<td>3.30pm to 5.30pm</td>
<td>- By email: <a href="mailto:admin@robotics.com.sg">admin@robotics.com.sg</a></td>
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<tr>
<td>Sundays</td>
<td>1.00 pm to 3.00pm or 3.30pm to 5.30pm</td>
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