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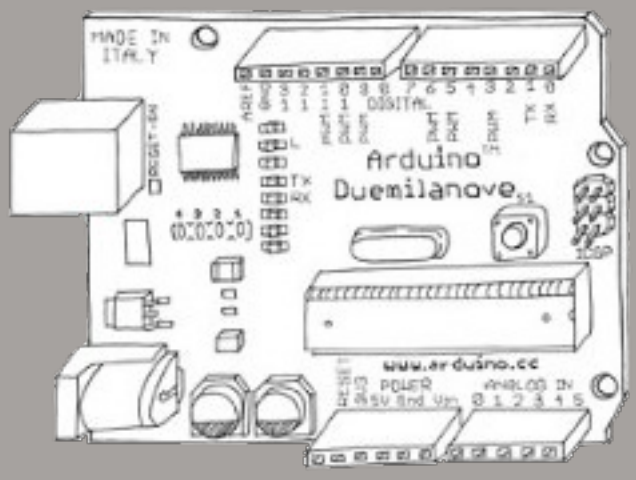
S4A - Scratch for Arduino Top Tips

S4A stands for Scratch for Arduino, the software which can be downloaded onto either Mac, Linux or windows, looks similar to "Scratch" but there are some additional blocks on this enabling you to interact with your Arduino.

S4A is a drag and drop style software, enabling you to learn the importance of certain aspects of programming without the difficulty of handling syntax errors or code constructs. This includes learning about sequencing your commands and the importance of clear, concise instructions for the computer to interpret.

What is an Arduino?



An Arduino is a small computer you can use to receive and send messages to other electrical components. It is a micro-controller, used similar to a motherboard inside your computer - you can connect various components and build your electrical circuits from these. Arduinos can also be programmed using a language called C. It is a language commonly used throughout the industry, in fact it is one of the most commonly used programming languages. To program the Arduino, you will need to download the open-source (free) Arduino IDE (Integrated Development Environment) onto your computer (Windows, Mac or Linux).

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Scratch for Arduino

Code	Description
	This will read the value for the sensor connected to this pin. You can use this within an IF statement. This can also be used within an IF statement, stating whether it is true or false that the switch connected to this pin is pressed. This segment of code will turn the component connected to this pin ON. This segment of code will turn the component connected to this pin OFF. This will set the current for the component connected to the specified pin. This deactivates the specified motor. This will set your chosen motor to a particular direction: clockwise or anti-clockwise. This sets to which angle the motor will rotate at. This will reset the actuators. This will stop the connection to the Arduino. This will resume the connection to the Arduino. This will show the board. This will hide the board. This will change the x y co-ordinate location of the board on the screen on the right.

Don't forget to send us examples of your projects!