

Arduino Sketch— Or open the Arduino IDE go to File > Examples > 01.Basics > Blink

The following explains the Blink Sketch example and hints to help reduce some errors in your sketch.

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<pre>/* This Sketch is a description of how to Code, an Arduino, for the Blink LED example. *It turns the onboard LED on and off every 500 milliseconds (1/2 second) */ // Written by Pat McMahon—14/6/2020 const int KPinLED=13: // Declares constant on pin 13</pre>	GLOBAL SCOPE	Write comments, notes Connections etc. Import needed libraries Declare Constants and Pin Numbers Declare objects Declare Variables
<pre>void setup () { Pinmode (KPinLed, OUTPUT); // initializes digital pin KPinLed as an output. }</pre>	SETUP SCOPE	setup () is called once only when you power the board or when you press reset.
<pre>void loop () { digitalWrite (KPinLed, HIGH); // turn the LED on (HIGH is the voltage level) delay (500); // wait for 500 milliseconds. digitalWrite (KPinLed, LOW); // turn the LED off by making the voltage LOW delay (500); // wait for 500 milliseconds. }</pre>	LOOP SCOPE	loop() is called over and over again as long as the Arduino has power.

Note— Below are some explanations and hints to help reduce ERRORS In your Sketch.

- The Arduino IDE (Integrated Development Environment) allows you to create, open and change sketches.
- Each Sketch can have a Global Scope, but must have a Setup and Loop Scope.
- The programming language is case sensitive. In other words , myVar is different than MyVar
- Whitespace (spaces, tabs, blank lines are all collapsed to the equivalent of a single space. It is for the human reader only.
- Blocks of code are encapsulated with curly braces ' {'and '}'
- Check in setup and loop that you have equal numbers of open curly { braces and closed curly } braces.
- Every open parenthesis '(' must have a matching close parenthesis')
- There are no commas in numbers. So you must say 1000 and NOT 1,000.
- Each program statement needs to end with a semicolon';'. In general, this means that each line of your program will have a semicolon. Exceptions are:
 - – Semicolons (like everything) are ignored in comments – Semicolons are not used after the end curly brace. '}'
- Int Have no numbers in them ie (3LED) and no spaces ie (SET LED) in between words.
- /* opens lines of comments, */ closes lines of comments.
- // For single line comments.
- Avrdude error—check under tools, ensure correct board type.
- INPUT, OUTPUT, HIGH, LOW are all in capital letters, not lower case.