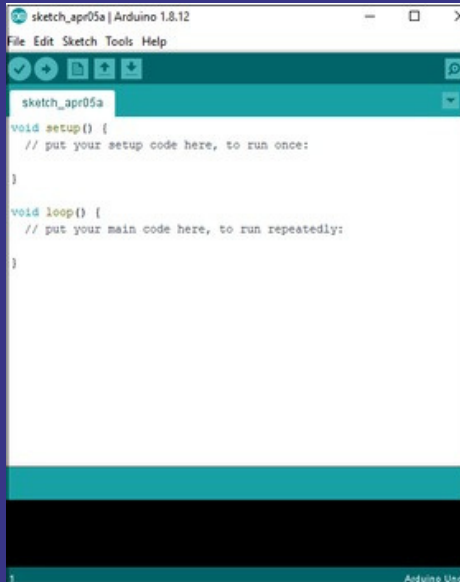


ROBO DYNAMICS



*Build
Your Own
Robot*

Chapter 2 Arduino IDE

What is Arduino IDE

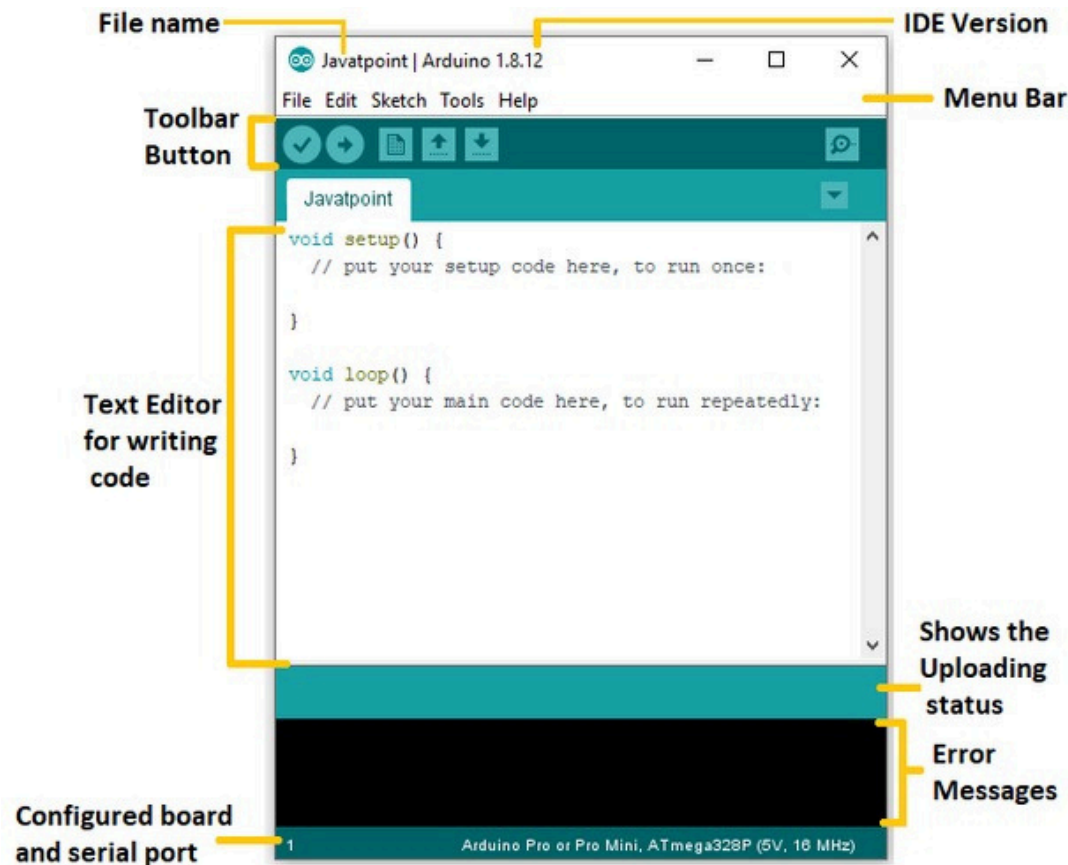
- The Arduino IDE is an open-source software, which is used to write and upload code to the Arduino boards. The IDE application is suitable for different operating systems such as Windows, Mac OS X, and Linux. It supports the programming languages C and C++.
- Here, IDE stands for Integrated Development Environment

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What is Arduino IDE

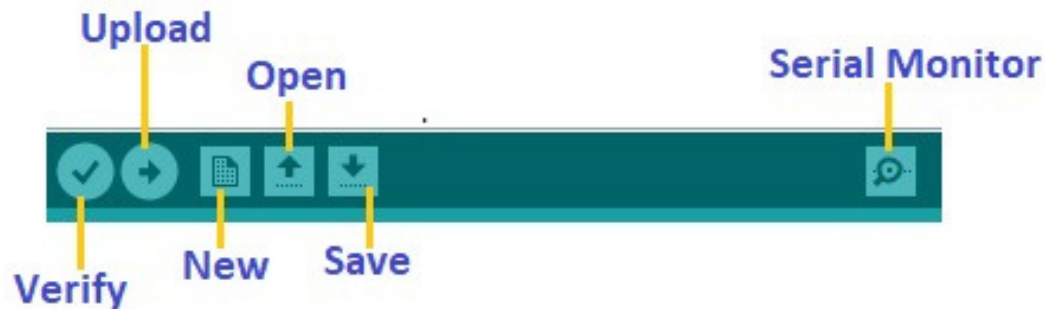
- The program or code written in the Arduino IDE is often called as sketching.
- We need to connect the Genuino and Arduino board with the IDE to upload the sketch written in the Arduino IDE software.
- The sketch is saved with the extension '.ino.'

What is Arduino IDE



Toolbar Button

- The icons displayed on the toolbar are New, Open, Save, Upload, and Verify.
-



Upload

- The Upload button compiles and runs our code written on the screen. It further uploads the code to the connected board. Before uploading the sketch, we need to make sure that the correct board and ports are selected.
- We also need a USB connection to connect the board and the computer. Once all the above measures are done, click on the Upload button present on the toolbar.
-

Upload

- The latest Arduino boards can be reset automatically before beginning with Upload. In the older boards, we need to press the Reset button present on it. As soon as the uploading is done successfully, we can notice the blink of the Tx and Rx LED.
- If the uploading is failed, it will display the message in the error window.
- We do not require any additional hardware to upload our sketch using the Arduino Bootloader. A Bootloader is defined as a small program, which is loaded in the microcontroller present on the board. The LED will blink
- on PIN 13.

Arduino IDE

- **Open**

- The Open button is used to open the already created file. The selected file will be opened in the current window.

- **Save**

- The save button is used to save the current sketch or code.

- **New**

- It is used to create a new sketch or opens a new window.

- **Verify**

- The Verify button is used to check the compilation error of the sketch or the written code.

- **Serial Monitor**

- The serial monitor button is present on the right corner of the toolbar. It opens the serial monitor.

