THE USE OF HARDWARE TECHNOLOGY ARDUINO UNO

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According to the Arduino Uno microcontroller with help of a variety of analog and digital devices, the software is designed to automatically control the electronic device. Stand of the electronic device Arduino Uno, is given Figure 1.
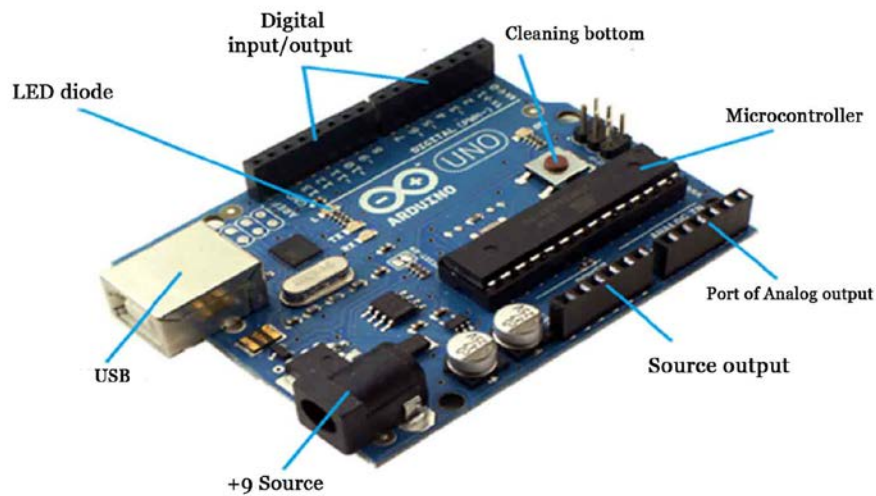

Figure 1. Stand of the view of Arduino Uno.

• microcontroller

• Cleaning bottom- written application on the microcontroller and to write program

• USB port to connect to your PC;

• To startup

LED diode;

• Digital input and output ports for the digital mock boards companent;

• Port of Analog output - model boards for analog components;

• Port of Resource - model circuit components;

• Port of + 9V source - device for the Arduino source.

Arduino Uno allows you to manage a variety of electronic devices using the software. Construction of a variety of digital and analog electronic devices with helping, to manage them automatically manage radiocomponent.
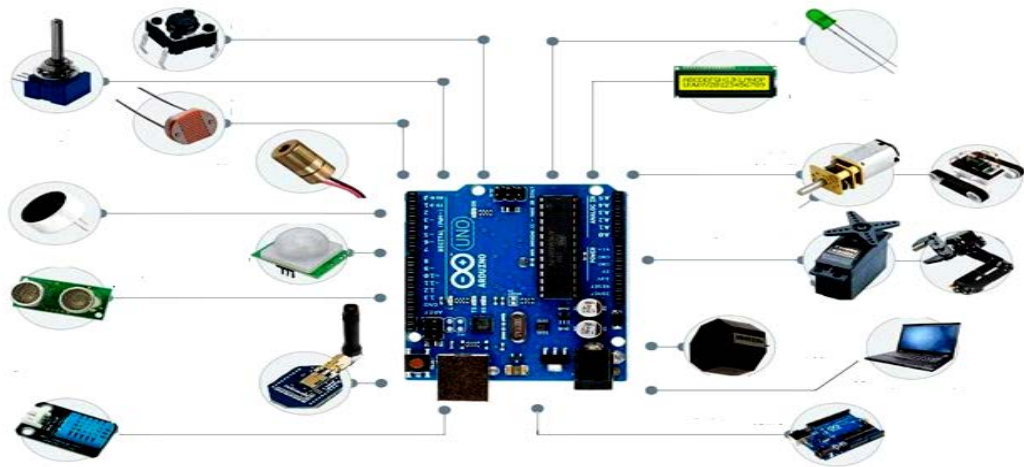

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Figure 2. Appereance of the variety of electronic components in
Arduino Uno device

Arduino Uno electronic device using a variety of methods, LED glow program management will be discussed.

For this,

• Arduino

• Model plata

• resistant up to 220 Ohm

• LED diode

• mounts and wires

For Starting

• pallet collection

• Write Program

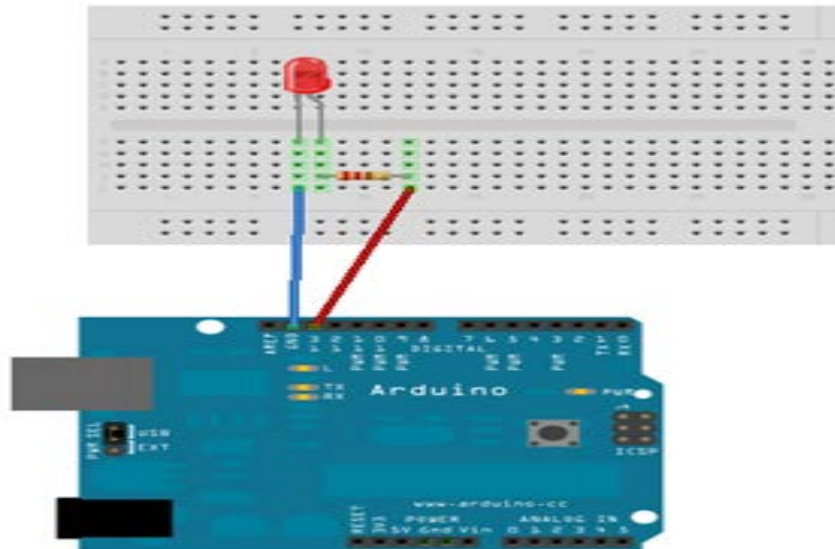• Connect to Arduino a computer circuit board

To collection scheme

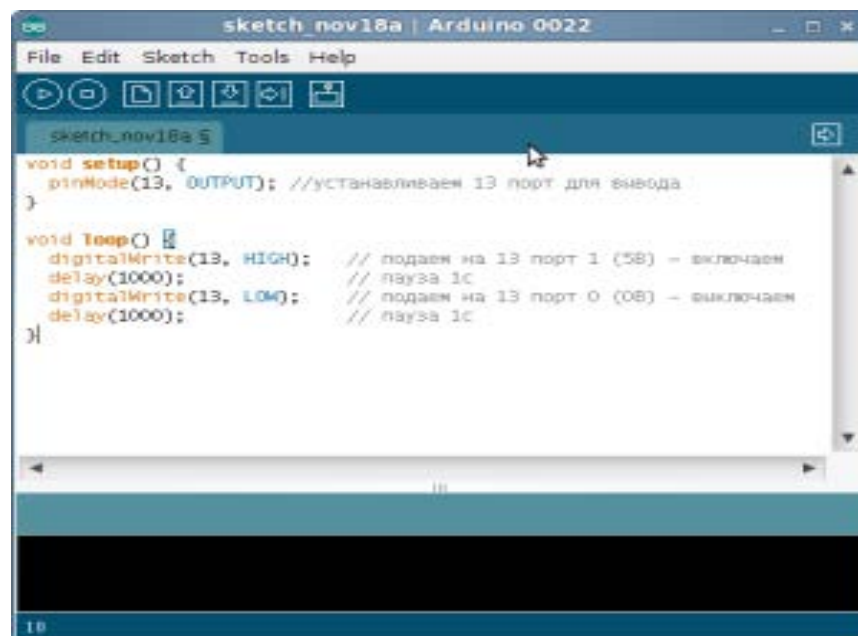Figure 3. Connected to light-emitting diode device Arduino.

Write Program

Figure 4. Programming the device Arduino.

```
void setup() {
pinMode(13, OUTPUT); // exit 13 port
}
void loop() {
digitalWrite(13, HIGH); // the 13 port 1 (5B) —adding
delay(1000); // pause 1c
digitalWrite(13, LOW); // the 13 port  0 (0B) —  adding
delay(1000); // pause 1c
}
```

The program is written light-emitting diode a second interval start flashing. LED status can not be changed. For example, to change the frequency, short or long flashing can be cleared using this program allows you to manage. As a result of increasing the number of light diodes to create a variety of different forms. In addition, light sensor, ultrasonic sensor, temperature sensor, movement sensor, a variety of measuring instruments, taxometr, digital sensors, light show, the actions of a variety of engines, such as moving lights, traffic lights, RGB LED functions.   As a result, the Arduino using the electronic device design, it allows you to manage a variety of electronic devices using the program automatically. Arduino electronic device robotechnics in the field of designing a variety of electronic devices.

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