

Installation Guide for Arduino Uno Interface

Updated: 5/17/2018

Procedure – Install the Software

**** Note: These installation Instructions are also available in Activity 4.2.1 within the DE Curriculum. ****

1. The Arduino software is a free-open source environment that can be downloaded and installed anywhere. Visit: <http://arduino.cc/en/main/software>. Select and download the Windows Installer.

Download the Arduino IDE

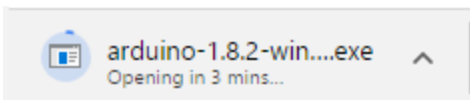


**** Note: the version listed above may differ from what is currently available. ****

2. Select **Just Download**

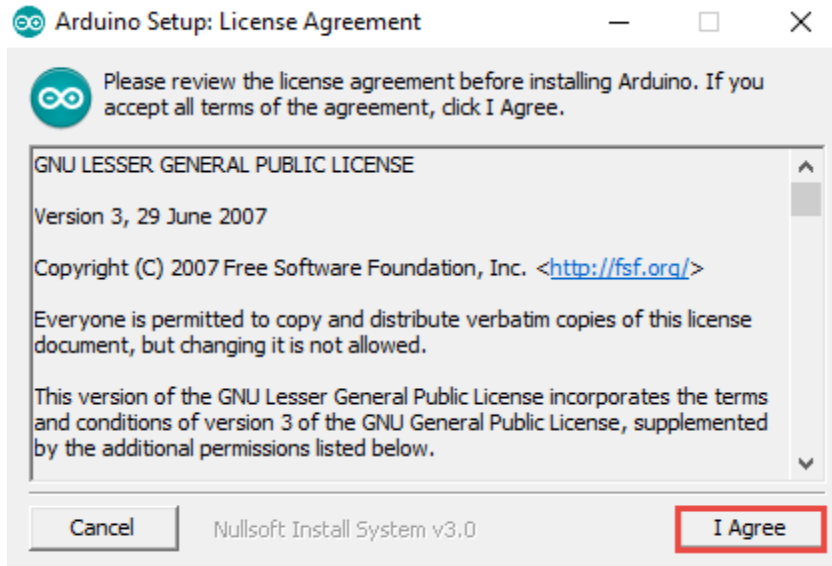
JUST DOWNLOAD

3. Wait for the file to load then open it

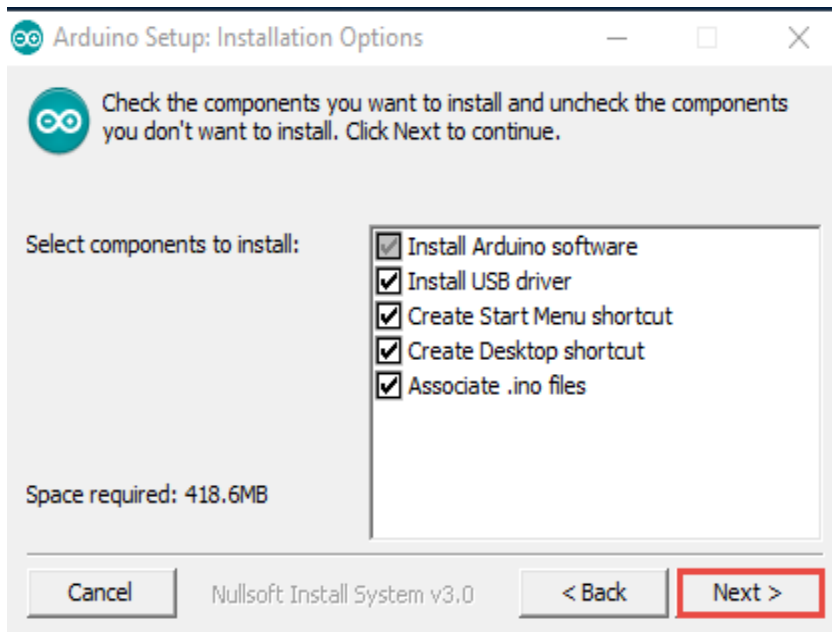


4. If a previous version of Arduino was installed it will ask you to uninstall the older version.

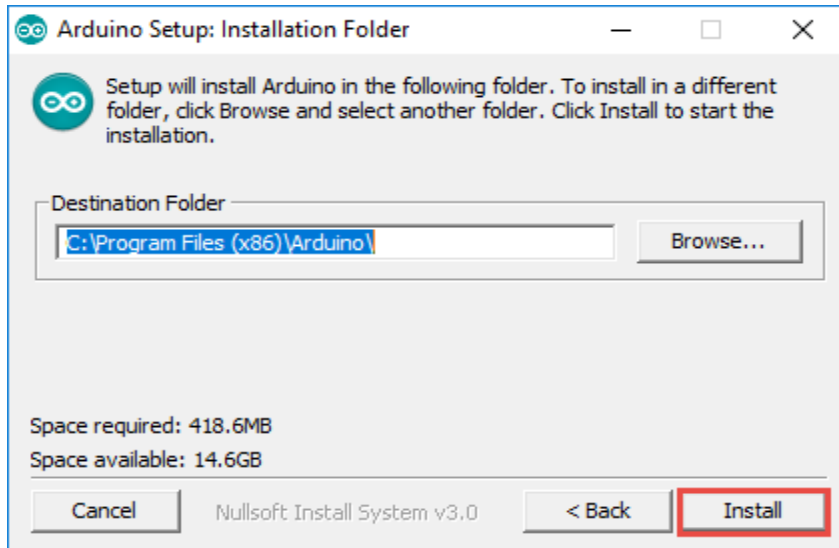
5. Launch the Installer and accept the Arduino Step: License Agreement



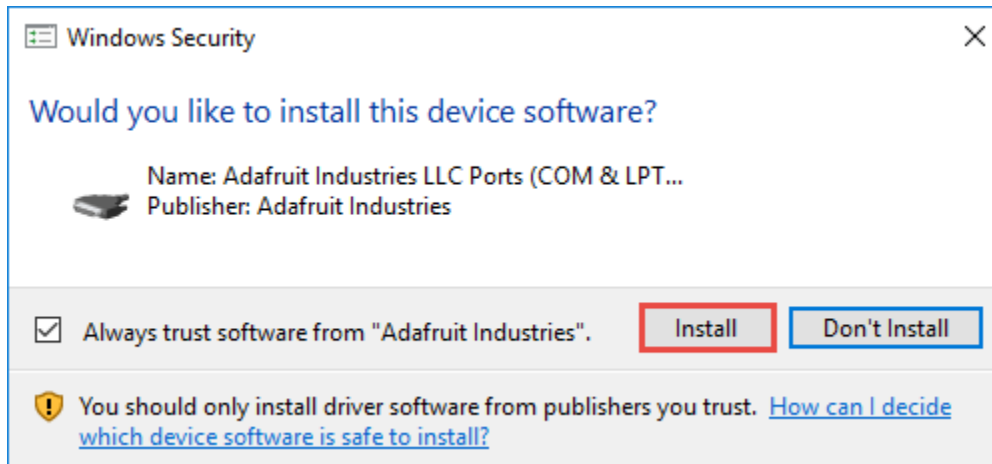
6. Installations Options: Leave all choices selected. Select **Next**



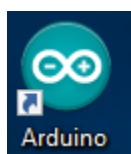
7. Select location of installation folder and select **Install**.



8. Install the USB Driver



9. Installation complete. You can double click the desktop icon to open the program.



Procedure – Test the board and Software

**** Note: You will need to have access to an Arduino Uno Board to complete this step. ****

Procedures: Test

1. Open the Arduino software from “Start -> All Programs” or from the “Desktop Shortcut”. The new sketch should be named according to the format “sketch_date”
2. The following example will make the LED at pin 13 blink on and off. Copy and paste the code below into the sketch window. Rename the sketch “ArduinoTest_ your initials_date”

/*

Title: Description and comments.

Arduino Test: Copy and paste this code into open the sketch window.

This example code is in the public domain.

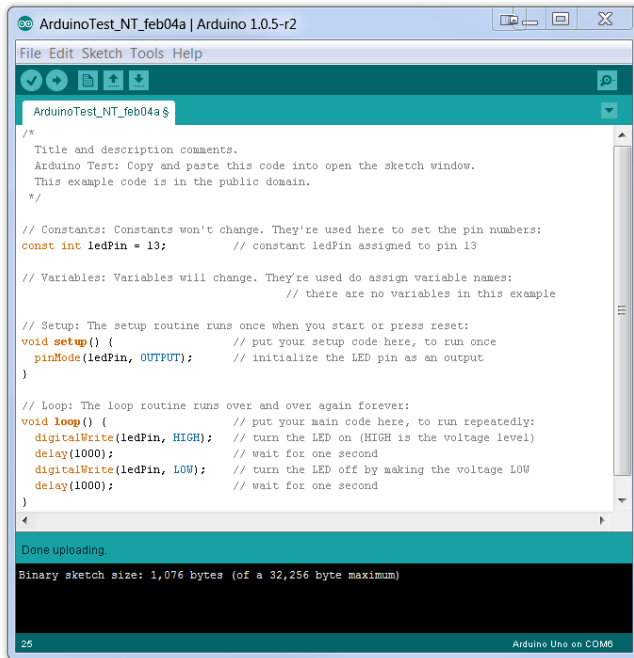
*/

// **Constants:** Constants won't change. They're used here to set the pin numbers:
const int ledPin = 13; // constant ledPin assigned to pin 13

// **Variables:** Variables will change. They're used do assign variable names:
// there are no variables in this example

// **Setup:** The setup routine runs once when you start or press reset:
void setup() { // put your setup code here, to run once
pinMode(ledPin, OUTPUT); // initialize the LED pin as an output
}

// **Loop:** The loop routine runs over and over again forever:
void loop() { // put your main code here, to run repeatedly:
digitalWrite(ledPin, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1000); // wait for one second
digitalWrite(ledPin, LOW); // turn the LED off by making the voltage LOW
delay(1000); // wait for one second
}

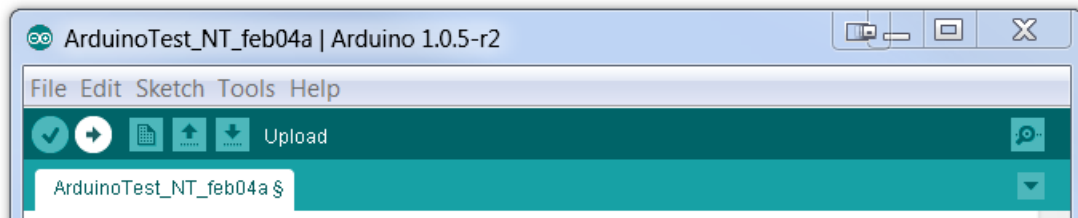


The screenshot shows the Arduino IDE interface. The main text area contains the following code:

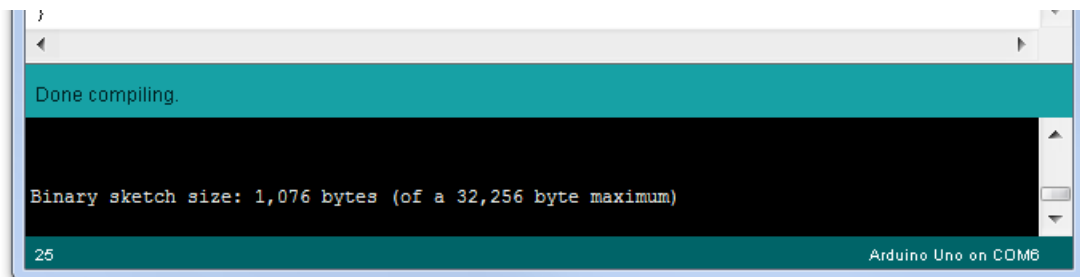
```
ArduinoTest_NT_feb04a $  
/*  
 Title and description comments.  
 Arduino Test: Copy and paste this code into open the sketch window.  
 This example code is in the public domain.  
 */  
  
// Constants: Constants won't change. They're used here to set the pin numbers:  
const int ledPin = 13; // constant ledPin assigned to pin 13  
  
// Variables: Variables will change. They're used do assign variable names:  
 // there are no variables in this example  
  
// Setup: The setup routine runs once when you start or press reset:  
void setup() { // put your setup code here, to run once  
  pinMode(ledPin, OUTPUT); // initialize the LED pin as an output  
}  
  
// Loop: The loop routine runs over and over again forever:  
void loop() { // put your main code here, to run repeatedly:  
  digitalWrite(ledPin, HIGH); // turn the LED on (HIGH is the voltage level)  
  delay(1000); // wait for one second  
  digitalWrite(ledPin, LOW); // turn the LED off by making the voltage LOW  
  delay(1000); // wait for one second  
}
```

Below the code, a status bar indicates: "Done uploading. Binary sketch size: 1,076 bytes (of a 32,256 byte maximum)". The bottom right corner shows "Arduino Uno on COM6".

3. Verify and Upload the test code.



4. Any compiling errors will be reported in the bottom window.



5. The LED on pin 13 should be blinking.