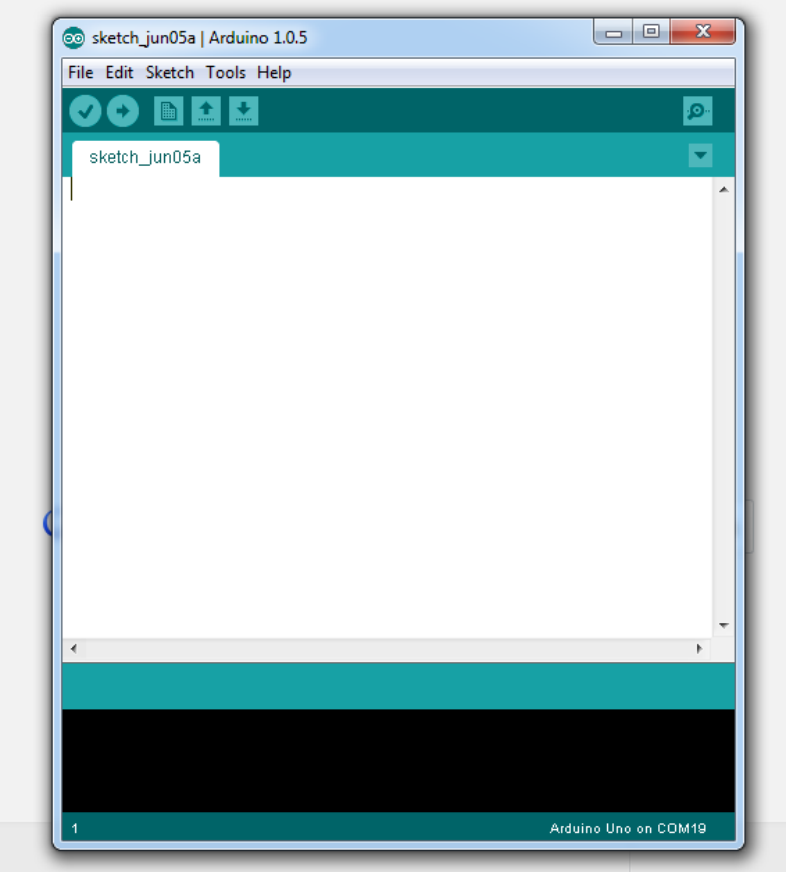
Anduino Handout

1. Make Arduino IDE is installed and you an Arduino board and connector ready.
2. Connect the Arduino board. When it completes installing the driver make sure you note down the com port it is configured/connected to. (E.g. COM20)
3. Open the Arduino Ide and study the various command menus.



4. The menu items are Verify (check code for errors), Upload (upload a program into the Arduino unit), New (open a new blank program), Open (existing programs), Save (the current program).
5. The Arduino IDE is written in a development language called Processing. (We will learn about Processing later). A program written in this environment is called a “Sketch”. Processing is indeed written on top of Java as a Java library.
6. Connect the Arduino board.
7. Enter the following “sketch” with three parts: data definitions, setup() function and a loop() function.

```
/*
  Blink
  Turns on an LED on for one second, then off for one second, repeatedly.

  This example code is in the public domain.
*/
```

```
// Pin 13 has an LED connected on most Arduino boards.
// give it a name:
//DATA AREA
int led = 13;

// the setup routine runs once when you press reset:
//SETUP
void setup() {
  // initialize the digital pin as an output.
  pinMode(led, OUTPUT);
}

// the loop routine runs over and over again forever:
//LOOP forever or until terminated by the user
void loop() {
  digitalWrite(led, HIGH);   // turn the LED on (HIGH is the voltage level)
  delay(100);               // wait for a second
  digitalWrite(led, LOW);    // turn the LED off by making the voltage LOW
  delay(100);               // wait for a second
}
```

8. The data definition part defines the data needed by the application.
9. The setup() function establishes the initial setup and configuration of the devices and other variables.
10. Loop keeps looping the operation specified in the function.
11. Let us write a simple blink and under the basic setup.