

Programming Level 2 Test

This test should be administered under the supervision of a senior programmer (level 4)

Applicants should be able to provide an explanation as to how any code that they have written works

Applicant's name _____ Date _____

- _____ Create a new repository on Github
- _____ All work done for this test should be committed to this repo
- _____ All code written should be commented such that anyone who has a basic understanding of Java can easily read and understand the code
- _____ Revert a commit to your repo
- _____ Implement the following method which prints an array of Strings to the standard output

```
Public static void arrayPrinter(String[] str)
```
- _____ Write a method which prompts the user to input 4 doubles and returns them in a double array
- _____ Write a method stringParser which takes a String consisting of comma separated values and returns them as an array of Strings
- _____ Describe the difference between an Object and a Class
- _____ Describe the difference between using the '==' operator and using the equals(Object other) method to test equality
- _____ Implement the constructor for the TestJava class which stores a String, double, and Object as instance data, then create an object of the TestJava class
- _____ Create a method scanFile, which reads each line of a file and stores it in an ArrayList
- _____ Describe what a generic type is
- _____ Recreate arrayPrinter using an ArrayList instead of an array, call this method arrayListPrinter
- _____ Make a new robot project in vscode(Command palette & WPI extension)

- ____ Write code that will control a motor that's plugged into port 3
- ____ Write code so that when a button is pressed, a motor will be halved in speed
- ____ Describe the difference between an iterative bot and command based bot
- ____ Make code that will bind a pneumatics controller to a button
- ____ Create a command that will move the bot forward for 5 seconds
- ____ Create a command that will spin a motor until a limit switch is switched
- ____ Add a command to a scheduler
- ____ Create a new subsystem

Tester's Name _____ (print)

I have not assisted the applicant in the taking of this test and have been as fair as I can.

Tester Signature_____