Certification #1 revised: 8-5-18

Challenge:

* Be able to open and use eclipse to write a basic Hello World from scratch, and run it in a local console application.

Skills Required:

* Basic functionality of eclipse. (creating source files, compile and run code, etc.)
* Create and use variables
* Create and use literals
* Understand basic syntax

Certification #2

Challenge:

* Be able to create a robot project and create code for a dual motor drive on an Xbox Controller, using the same input. Use at least one function to limit motor power. Use the X and Y axis of a single Joystick to control the motors.

Skills Required:

* Use of include files
* Be able to create robot project
* Be able to create and use functions
* Be able to call upon knowledge from previous

Certification #3

Challenge:

* Be able to write code for Teleoperated functions such as drive and shoot.

Skills Required:

* Knowledge of C++
* Object Orientation
* Knowledge of WPILib
* Knowledge of Command Based Programming

Certification #4

Challenge:

* Be able to write code for an autonomous period of 15 seconds.

Skills Required:

* Knowledge of C++
* Object Orientation
* Knowledge of WPILib
* Knowledge of Command Based Programming

Certification #5

Challenge:

* Be able to completely recode Sir Lifts A Lot

Skills Required:

* Knowledge of C++
* Object Orientation
* Knowledge of WPILib
* Knowledge of Command Based Programming

Certification #6

Challenge:

* Be able to write code for Rocky

Skills Required:

* Knowledge of C++
* Object Orientation
* Knowledge of WPILib
* Knowledge of Command Based Programming

Certification #7

Challenge:

* Be able to write code for Kurgan

Skills Required:

* Knowledge of C++
* Object Orientation
* Knowledge of WPILib
* Knowledge of Command Based Programming

Certification #8

Challenge:

* Be able to write code for Austin Powers Up

Skills Required:

* Knowledge of C++
* Object Orientation
* Knowledge of WPILib
* Knowledge of Command Based Programming

Certification #9

Challenge:

* Be able to write code for the Smart Dashboard

Skills Required:

* Knowledge of C++
* Knowledge of Sensors
* Knowledge of WPILib
* Knowledge of Printing and Reading Values