BatteryRobot Manual

Version 0.1.1

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Document Control Page

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# Project Overview

# General Limitations and Warnings

Cannot perform vial and pipette operations for safety purposes

# Requirements

# File Hierarchy

Project is under the BatteryRobot folder.

# Version Control

Project uses Git for version control. Project repository is on Github under the Lopez Group email.

# Detailed Codebase Explanation

## Main.nproj

The most important file for this project is the \*.nproj file (for this project, it’s named Main.nproj). This file contains all the robot configurations, locators etc.

## Locators

All locators are imported from MainProject\src\main\Locator.py. However, locations are stored in the Main.nproj file, not the Locator.py file itself. They are only exported to the latter for script execution.

Locators can be edited through the “Locator” tab on the NorthIDE (see “View”).

### Pipette and Gripper Locators

Locations can either be relative to the pipette holder or gripper of the robot. On the “Locator” tab, each Locator will have an icon denoting which part of the robot it is relative to.

### Types of Locs

#### Standard

#### Grid

### Mapped Locs

Accessible through Locators.py

## Classes

### BatteryRobot

### T8

### PowderShaker

## Powder Protocols

All powder protocols are defined in MainProject\src\main\settings\powder\_protocols.py.

## External Libraries

Pandas

Gamry

## Errors Raised for Safety Purposes

Some Exceptions (errors) are raised during runtime to avoid collision between components of the robot.