

SOFTWARE STANDARD OPERATING PROCEDURE

PROJECT: LIBERTY

TASK: Describe the procedure to follow during code development

Document Version Number: 3.0

Date: 30/11/2017

Author: Bill Zhang

Editor: Andi-Camille Bakti

Edit History: https://github.com/Gabetn/DPM_01_Project_Documentation



McGill

TABLE OF CONTENTS

TABLE OF CONTENTS	2
1. CONSTRUCTOR SOP	3
2. SENSOR INSTANCE SOP	3
3. SENSOR DATA SOP	3
4. MULTI-THREADING SOP	3
5. WIFI DATA SOP	4
6. MOTOR INSTANCE SOP	4
7. COMMENTATION SOP	4
8. CONSTANT SOP	4

1. CONSTRUCTOR SOP

1. `public LightLocalizer(Odometer odometer, int SC)`
2. `public UltrasonicLocalizer(Odometer odometer)`
3. `public Navigation(Odometer odometer)`
4. `public Capturing(Odometer odometer)`
5. `public OdometryCorrection(Odometer odometer)`

2. SENSOR INSTANCE SOP

1. All sensor instances shall be created in the `robotControl` class

3. SENSOR DATA SOP

1. All sensor data should be collected in the `sensorPoller` class and passed to other classes in `sensorPoller`

4. MULTI-THREADING SOP

1. `Capturing`, `sensorPoller`, and `OdometryCorrection` shall be the only classes that extend `thread`.
2. `Capturing` and `OdometryCorrection` extends `thread` via implementing the interface `sensorPoller`
3. The way to create `thread` is to extend the `thread` in that class
4. `Navigation` uses `thread` by creating new `thread` in `robotControl`

5. WIFI DATA SOP

1. All wifi data is collected in robotControl and passed to other classes

6. MOTOR INSTANCE SOP

1. All motor instances shall be created in robotControl class as public object, other class shall access them in the robotControl

7. COMMENTATION SOP

1. All comments across the project shall be in agreement with Javadoc

8. CONSTANT SOP

1. All general constants like radius and width are defined in robotControl
2. All class-specific constants like color code are defined in the classes

9. FUNCTIONAL CLASS SOP

1. All classes require any sensor data are defined as functional classes and implement the functionProvider interface
2. All functional classes are by default a thread since the interface extends thread
3. There are ultrasonic data and light data and their respective methods. Only write the method that the class uses its type of data