SOFTWARE STANDARD OPERATING PROCEDURE

PROJECT: LIBERTY
TASK: SOFTWARE DESIGN

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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. Navigation, Capturing and OdometryCorrection shall be the only classes that extend thread.
2. The way to create thread is to put a new thread in the robotControl class

5. WIFI DATA SOP

1. All wifi data are collected in robotControll and passed to other classes

6. MOTOR INSTANCE SOP

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

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. LOCALIZER CONVENTION

1. In the end of localization, the odometer shall obtain the correct heading relative to the reference true 0.

10. ODOMETRY CORRECTION CONVENTION

1. Odometry Correction only fixes the reading on the odometer. It does not alter the physical position of the robot