



libsensorj
0.0.1-SNAPSHOT

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1. libsensorj

This chapter presents an overview of the project measures. This dashboard shows the most important measures related to project quality, and it provides a good starting point for identifying problems in source code.

1.1. Report Overview

Static Analysis

Lines of code

2,720

7 packages

55 classes

106 methods

1.3% duplicated lines

Comments

34.9%

1,455 comment lines

Complexity

2.8

5.5 /class

300 decision points

Dynamic Analysis

Code Coverage

0.0%

0 tests

Test Success

N/A

N/A failures

N/A errors

Coding Rules Violations

Rules Compliance

80.7%

Violations

177

1.2. Violations Analysis

Most violated rules	
Avoid commented-out lines of code	53
Utility classes should not have a public constructor	37
Insufficient branch coverage by unit tests	25
Octal values should not be used	17
Local variable and method parameter names should comply with a naming convention	13

Most violated files	
StepperMotorGpioExample	21
WiringPiSPIExample	16
I2CWiiMotionPlusExample	11
PCA9685GpioServoExample	10
Example	6

Most complex files	
PCA9685GpioServoExample	79
DHT11Temperature	25
I2CWiiMotionPlusExample	16
PiFaceExample	12
WiringPiGpioInterruptExample2	11

Most duplicated files	
WiringPiGpioInterruptExample2	48
WiringPiSPIExample	11
Example	11

1.3. Violations Details

Rule	Avoid commented-out lines of code	
File	Line	
TemperatureSensorFactory	23, 13	
UltrasonicRangeFinderFactory	13, 23	
DHT11Humidity	41	
DHT11Temperature	62	
UltrasonicHcsr04	53	
BlinkGpioExample	18	
BlinkTriggerGpioExample	18	
ControlGpioExample	18	
CylonGpioExample	18	
FrequencyGpioExample	18	
I2CWiiMotionPlusExample	91, 152, 97, 16	
LcdExample	16	
ListenGpioExample	18	
ListenMultipleGpioExample	18	

MCP23017GpioExample	16
MCP23S17GpioExample	16
MCP4725GpioExample	16
MultipurposePinGpioExample	16
OlimexGpioExample	16
OutputHiGpioExample	18
PCA9685GpioExample	16
PCA9685GpioServoExample	16
PCF8574GpioExample	16
PiFaceExample	16
PiFaceGpioExample	16
RPIServoBlasterExample	16
SerialExample	116, 18
ShutdownGpioExample	18
StepperMotorGpioExample	16
SystemInfoExample	18
TriggerGpioExample	18
WiringPiGpioExample	16
WiringPiGpioInterruptExample	79, 16
WiringPiGpioInterruptExample2	16
WiringPiLcdExample	96, 16
WiringPiSPIExample	126, 16
WiringPiSerialExample	16
WiringPiSoftPWMExample	16
example	98, 89, 16
DHT11Temperature	130
UltrasonicHcsr04	69
TemperatureSensorFactory	13, 23
UltrasonicRangeFinderFactory	23, 13
DHT11Humidity	41
DHT11Temperature	62, 130
UltrasonicHcsr04	53, 69
TemperatureSensorFactory	23, 13
UltrasonicRangeFinderFactory	23, 13
DHT11Humidity	41
DHT11Temperature	132, 62
UltrasonicHcsr04	53, 69
Example	90, 16, 100
UltrasonicRangeFinderExample	28

Rule	Utility classes should not have a public constructor	
File		Line
DHT11TemperatureExample		7
UltrasonicRangeFinderExample		11
BlinkGpioExample		50
BlinkTriggerGpioExample		51
ControlGpioExample		47
CylonGpioExample		47
FrequencyGpioExample		47
I2CWiiMotionPlusExample		43
LcdExample		46
ListenGpioExample		49
ListenMultipleGpioExample		49
MCP23017GpioExample		67
MCP23S17GpioExample		67
MCP4725GpioExample		59
MultipurposePinGpioExample		47
MyExample		3
OlimexGpioExample		70
OutputHiGpioExample		50
PCA9685GpioExample		63
PCF8574GpioExample		65
PiFaceExample		53
PiFaceGpioExample		65
RPIServoBlasterExample		33
SerialExample		49
ShutdownGpioExample		48
StepperMotorGpioExample		46
SystemInfoExample		47
TriggerGpioExample		55
UsageGpioExample		53
WiringPiGpioExample		35
WiringPiGpioInterruptExample		38
WiringPiGpioInterruptExample2		36
WiringPiLcdExample		39
WiringPiSPIExample		35
WiringPiSerialExample		34
WiringPiSoftPWMEExample		32
example		35
Example		35

Rule	Insufficient branch coverage by unit tests	
File	Line	
DHT11Temperature	N/A	
UltrasonicHcsr04	N/A	
BlinkGpioExample	N/A	
CylonGpioExample	N/A	
I2CWiiMotionPlusExample	N/A	
LcdExample	N/A	
MCP23017GpioExample	N/A	
MCP23S17GpioExample	N/A	
MCP4725GpioExample	N/A	
OlimexGpioExample	N/A	
PCA9685GpioExample	N/A	
PCA9685GpioServoExample	N/A	
PCF8574GpioExample	N/A	
PiFaceExample	N/A	
PiFaceGpioExample	N/A	
RPiServoBlasterExample	N/A	
SystemInfoExample	N/A	
WiringPiGpioExample	N/A	
WiringPiGpioInterruptExample	N/A	
WiringPiGpioInterruptExample2	N/A	
WiringPiLcdExample	N/A	
WiringPiSPIExample	N/A	
WiringPiSerialExample	N/A	
WiringPiSoftPWMEExample	N/A	
example	N/A	
DHT11Temperature	N/A	
UltrasonicHcsr04	N/A	
DHT11Temperature	N/A	
UltrasonicHcsr04	N/A	
Example	N/A	

Rule	Octal values should not be used	
File	Line	
StepperMotorGpioExample	84, 106, 85, 111, 112, 94, 82, 97, 109, 108, 110, 96, 83, 107, 113, 95	
WiringPiSPIExample	157	

Rule	Local variable and method parameter names should comply with a naming convention	
File	Line	
StepperMotorGpioExample	105, 93, 81	
WiringPiSPIExample	84, 86, 76, 87, 82, 80, 89, 88, 74, 78	

Rule	Generic exceptions Error, RuntimeException, Throwable and Exception should never be thrown	
File	Line	
I2CWiiMotionPlusExample	53, 162	
MCP4725GpioExample	64	
PCA9685GpioExample	73	
PCA9685GpioServoExample	425, 74, 121	
RPiServoBlasterExample	35	
TriggerGpioExample	107	
DHT11Temperature	103	

Rule	Public methods should throw at most one checked exception	
File	Line	
MCP23017GpioExample	72	
MCP23S17GpioExample	72	
PCF8574GpioExample	70	
PiFaceExample	60	
PiFaceGpioExample	70	
SystemInfoExample	53	
WiringPiLcdExample	48	

Rule	Avoid too complex method	
File	Line	
PCA9685GpioServoExample	121, 235	
PiFaceExample	60	
WiringPiGpioInterruptExample2	43	

Rule	Class variable fields should not have public accessibility	
File	Line	
I2CWiiMotionPlusExample	191, 190, 192	

WiringPiSPIExample	38, 39
example	42, 41

Rule	Duplicated blocks	
File	Line	
WiringPiGpioInterruptExample2	N/A	
WiringPiSPIExample	N/A	
example	N/A	
Example	N/A	