

Interfacing to the Sumo11 with RoboJDE™

Host Output

```
void System.out.println(String text)
void System.err.println(String text)
void exception.printStackTrace()
OutputStream VM.getDebugOutputStream()
```

LCD Display

```
void System.out.println(String text)
void System.err.println(String text)
void System.setOut(PrintStream newOut)
void System.setErr(PrintStream newErr)
OutputStream getOutputStream()
Display getLcdDisplay()
void display.print(int line, String string)
boolean display.printChar(int line, int column, byte character)
```

Buzzer

```
void beep()
void click()
void play(int frequency, int duration)
Speaker getBuzzer()
void speaker.beep()
void speaker.click()
void speaker.play(int frequency, int duration)
```

Servo Ports

```
void setServoPosition(int servo, int position)
Servo getServo(int servo)
void servo.setPosition(int position)
Motor new ContinuousRotationServo(...)
void motor.setPower(int power)
```

Digital Inputs

```
boolean isDigitalInputSet(int portNumber)
DigitalInput getDigitalInput(int portNumber)
7 & 8 only -> pulse measurement
void enablePulseMeasurement(int port, boolean enabled)
int readPulseDuration(int port)
10 - 15 only -> shaft encoding
void enableEncoder(int encoder)
int getEncoderCounts(int encoder)
int getEncoderRate(int encoder)
ShaftEncoder getShaftEncoder(int encoder)
int encoder.getCounts()
int encoder.getRate()
```

Motor Ports

```
void setMotorPower(int motor, int power)
Motor getMotor(int motor)
void motor.setPower(int power)
```

Start and Stop (PRGM) Buttons

```
boolean startPressed()
boolean stopPressed()
void setTerminateOnStop(boolean terminateAppOnStop)
PushButton getStartButton()
PushButton getStopButton()
boolean button.isPressed()
void button.waitReleased()
```

Thumbwheel

```
int readThumbWheel()
AnalogInput getThumbWheel()
int thumbWheel.sample()
```

Digital Outputs (8 & 9)

```
void clearDigitalOutput(int portNumber)
void setDigitalOutput(int portNumber)
void toggleDigitalOutput(int portNumber)
void pulseDigitalOutput(int portNumber, int duration)
boolean isDigitalOutputSet(int portNumber)
DigitalOutput getDigitalOutput(int output)
void digitalOutput.clear()
void digitalOutput.set()
void digitalOutput.toggle()
boolean digitalOutput.isSet()
void pulseOutput.pulse(int duration)
```

Analog Inputs

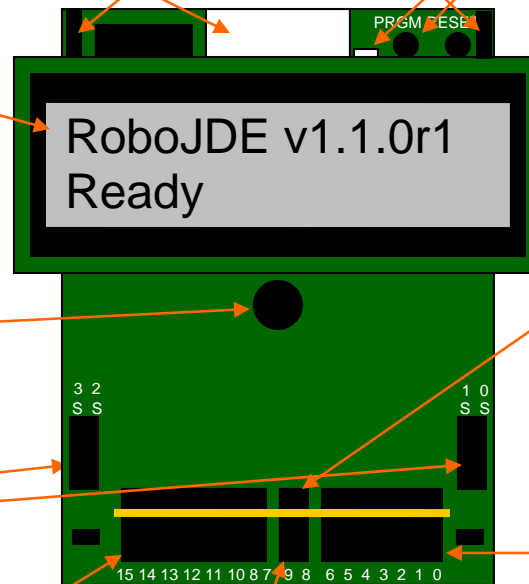
```
int analog(int portNumber)
AnalogInput getAnalogInput(int portNumber)
int analogInput.sample()
```

IR Demodulator

```
void irRxInitialize(...)
int irRead()
IrReceiver getIrReceiver()
IrRemote new SonyIrRemote(IrReceiver irReceiver)
IrRemote new Mvp1IrRemote(IrReceiver irReceiver)
int irRemote.read()
```

Notes

- Unless noted otherwise, all methods are static and should be preceded by "HandyBoard." For example, `boolean HandyBoard.startPressed()`.
- See RoboJDE API documentation for more detailed information.



Digital 9 -> Input or Output

```
void setDigital9Direction(boolean isOutput)
```

Misc

```
void setBoardType(byte type)
byte getBoardType()
long System.currentTimeMillis()
void Thread.sleep(long milliseconds)
```