

Interfacing to the IntelliBrain™ with RoboJDE™

Analog/Digital Inputs

```
AnalogInput getAnalogInput(int portNumber)
void analogInput.setPullUp(boolean pullUp)
int analogInput.sample()
boolean analogInput.isSet()
```

Serial/CMUcam Port

```
SerialPort getCom2()
void com2.setSerialPortParams(...)
OutputStream com2.getOutputStream()
InputStream com2.getInputStream()
CMUcam(SerialPort serialPort, int baudRate)
```

Servo Ports

```
Servo getServo(int servo)
void servo.setPosition(int position)
ContinuousRotationServo(...)
void motor.setPower(int power)
```

Motor Ports

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

LEDs

```
LED getStatusLed()
LED getFaultLed()
LED getExpansionLed(int ledNumber)
void led.on()
void led.off()
void led.toggle()
boolean led.isOn()
```

Buzzer

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

Misc

```
boolean isExpansionPresent()
long System.currentTimeMillis()
void Thread.sleep(long milliseconds)
EEPROM getCpuEEPROM()
EEPROM getExpansionEEPROM()
```

Digital Input/Outputs

```
IntelliBrainDigitalIO getDigitalIO(int portNumber)
void digital.setDirection(boolean isOutput)
boolean digital.isSet()
Input
void digitalInput.setPullUp(boolean pullUp) – main board only
void digitalInput.enablePulseMeasurement(boolean enable)
int digitalInput.readPulseDuration()
int digitalInput.readEdgeCount()
Output
void digitalOutput.clear()
void digitalOutput.set()
void digitalOutput.toggle()
void digitalOutput.pulse(int duration)
```

IR Demodulator

```
IrReceiver getIrReceiver()
SonyIrRemote(IrReceiver irReceiver)
Mvp1IrRemote(IrReceiver irReceiver)
int irRemote.read()
```

I2C Ports

```
I2CMaster getI2CMaster()
void i2cMaster.setFrequency(int frequency)
void i2cMaster.transfer(...)
```

IR Transmitter LED

```
LED getExpansionIrLed()
void led.on()
void led.off()
void led.toggle()
boolean led.isOn()
```

LCD Display

```
void System.out.println(String text)
void System.err.println(String text)
Display getLcdDisplay()
void display.print(int line, String string)
boolean display.printChar(int line, int column, byte ch)
```

Host Output

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

Thumbwheel

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

Start and Stop Buttons

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

Notes

- All static methods should be preceded by "IntelliBrain." unless noted otherwise. For example, `IntelliBrain.getLcdDisplay()`.
- See RoboJDE API documentation for more detailed information.

