

## Interfacing to the IntelliBrain™ 2 Robotics Controller using the RoboJDE™ Class Library

### Analog/Digital Inputs

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

### COM2/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 getUserLed(int ledNumber)
void led.on()
void led.off()
void led.toggle()
boolean led.isOn()
```

### Misc

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

### 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()
```

### IR Transmitter LED

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

### I2C Ports

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

### 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)
```

### Buzzer

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

### Thumbwheel

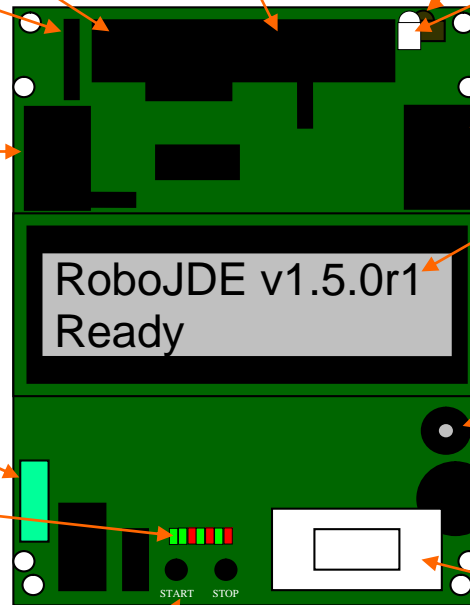
```
AnalogInput getThumbWheel()
int thumbWheel.sample()
```

### COM1/Host Output

```
void System.out.println(String text)
void System.err.println(String text)
void exception.printStackTrace()
OutputStream VM.getDebugOutputStream()
SerialPort getCom1()
```

### 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.