

**Package** [dev.robocode.tankroyale.botapi](#)

# Class BotState

java.lang.Object  
dev.robocode.tankroyale.botapi.BotState

```
public final class BotState
extends java.lang.Object
```

Represents the current bot state.

## Constructor Summary

### Constructors

| Constructor  | Description                                       |
|--|---|
| <b>BotState</b> (boolean isDroid, double energy, double x, double y, double direction, double gunDirection, double radarDirection, double radarSweep, double speed, double turnRate, double gunTurnRate, double radarTurnRate, double gunHeat, int enemyCount, java.awt.Color bodyColor, java.awt.Color turretColor, java.awt.Color radarColor, java.awt.Color bulletColor, java.awt.Color scanColor, java.awt.Color tracksColor, java.awt.Color gunColor, boolean isDebuggingEnabled) | Initializes a new instance of the BotState class. |

## Method Summary

All Methods    Instance Methods    Concrete Methods

| Modifier and Type | Method                  | Description  |
|-------------------|-------------------------|--|
| java.awt.Color    | <b>getBodyColor()</b>   | Returns the color the body.                          |
| java.awt.Color    | <b>getBulletColor()</b> | Returns the color of the bullets when fired.         |
| double            | <b>getDirection()</b>   | Returns the driving direction of the bot in degrees. |

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|                |                                      |  |
|----------------|--------------------------------------|--|
| java.awt.Color | <a href="#">getGunColor()</a>        | Returns the color of the gun.  |
| double         | <a href="#">getGunDirection()</a>    | Returns the gun direction of the bot in degrees.                                       |
| double         | <a href="#">getGunHeat()</a>         | Returns the gun heat.  |
| double         | <a href="#">getGunTurnRate()</a>     | Returns the turn rate of the gun in degrees per turn (can be positive and negative).   |
| java.awt.Color | <a href="#">getRadarColor()</a>      | Returns the color of the radar.  |
| double         | <a href="#">getRadarDirection()</a>  | Returns the radar direction of the bot in degrees.                                     |
| double         | <a href="#">getRadarSweep()</a>      | Returns the radar sweep angle in degrees, i.e.   |
| double         | <a href="#">getRadarTurnRate()</a>   | Returns the turn rate of the radar in degrees per turn (can be positive and negative). |
| java.awt.Color | <a href="#">getScanColor()</a>       | Returns the color of the scan arc.   |
| double         | <a href="#">getSpeed()</a>           | Returns the speed measured in units per turn.  |
| java.awt.Color | <a href="#">getTracksColor()</a>     | Returns the color of the tracks.   |
| double         | <a href="#">getTurnRate()</a>        | Returns the turn rate of the body in degrees per turn (can be positive and negative).  |
| java.awt.Color | <a href="#">getTurretColor()</a>     | Returns the color of the gun turret.   |
| double         | <a href="#">getX()</a>               | Returns the X coordinate of the bot, which is in the center of the bot.                |
| double         | <a href="#">getY()</a>               | Returns the Y coordinate of the bot, which is in the center of the bot.                |
| boolean        | <a href="#">isDebuggingEnabled()</a> | Checks if graphical debugging is enabled.  |
| boolean        | <a href="#">isDroid()</a>            | Checks if the bot is a droid or not.   |

**Methods inherited from class java.lang.Object**

## ***Constructor Detail***

### **BotState**

```
public BotState(boolean isDroid,  
                double energy,  
                double x,  
                double y,  
                double direction,  
                double gunDirection,  
                double radarDirection,  
                double radarSweep,  
                double speed,  
                double turnRate,  
                double gunTurnRate,  
                double radarTurnRate,  
                double gunHeat,  
                int enemyCount,  
                java.awt.Color bodyColor,  
                java.awt.Color turretColor,  
                java.awt.Color radarColor,  
                java.awt.Color bulletColor,  
                java.awt.Color scanColor,  
                java.awt.Color tracksColor,  
                java.awt.Color gunColor,  
                boolean isDebuggingEnabled)
```

Initializes a new instance of the BotState class.

#### **Parameters:**

**isDroid** - is the flag specifying if the bot is a droid.

**energy** - is the energy level.

**x** - is the X coordinate.

**y** - is the Y coordinate.

**direction** - is the driving direction in degrees.

**gunDirection** - is the gun direction in degrees.

**radarDirection** - is the radar direction in degrees.

**radarSweep** - is the radar sweep angle in degrees.

**speed** - is the speed measured in units per turn.

gunHeat - is the gun heat.

enemyCount - is the number of enemies left

bodyColor - is the body color.

turretColor - is the gun turret color.

radarColor - is the radar color.

bulletColor - is the bullet color.

scanColor - is the scan arc color.

tracksColor - is the tracks color.

gunColor - is the gun color.

isDebuggingEnabled - is a flag indicating if graphical debugging is enabled.

## Method Detail

### isDroid

```
public boolean isDroid()
```

Checks if the bot is a droid or not.

#### Returns:

true if the bot is a droid; false otherwise.

### getEnergy

```
public double getEnergy()
```

Returns the energy level of the bot. The energy level is typically starting at 100. The bot gains more energy when hitting other bots, and loses energy by getting hit and when spending energy on firing bullets. When the energy reaches 0, the bot becomes disabled and will not be able to take any new action. It might become active again, if one of its bullets hit another bot, meaning that the bot gains new energy.

#### Returns:

The energy level.

Returns the X coordinate of the bot, which is in the center of the bot.

**Returns:**

The X coordinate.

### **getY**

```
public double getY()
```

Returns the Y coordinate of the bot, which is in the center of the bot.

**Returns:**

The Y coordinate.

### **getDirection**

```
public double getDirection()
```

Returns the driving direction of the bot in degrees.

**Returns:**

The driving direction.

### **getGunDirection**

```
public double getGunDirection()
```

Returns the gun direction of the bot in degrees.

**Returns:**

The gun direction.

### **getRadarDirection**

```
public double getRadarDirection()
```

Returns the radar direction of the bot in degrees.

### **getRadarSweep**

```
public double getRadarSweep()
```

Returns the radar sweep angle in degrees, i.e. delta angle between previous and current radar direction.

**Returns:**

The radar sweep angle.

### **getSpeed**

```
public double getSpeed()
```

Returns the speed measured in units per turn.

**Returns:**

The speed.

### **getTurnRate**

```
public double getTurnRate()
```

Returns the turn rate of the body in degrees per turn (can be positive and negative).

**Returns:**

the turn rate.

### **getGunTurnRate**

```
public double getGunTurnRate()
```

Returns the turn rate of the gun in degrees per turn (can be positive and negative).

**Returns:**

the gun turn rate.

**Returns:**

the radar turn rate.

**getGunHeat**

```
public double getGunHeat()
```

Returns the gun heat. When firing the gun, it will be heated up. The gun will need to cool down before it can fire another bullet. When the gun heat is zero, the gun will be able to fire again.

**Returns:**

The gun heat.

**getEnemyCount**

```
public int getEnemyCount()
```

Returns the number of enemy bots left on the battlefield.

**Returns:**

the number of enemy bots left on the battlefield.

**getBodyColor**

```
public java.awt.Color getBodyColor()
```

Returns the color the body.

**Returns:**

The color the body.

**getTurretColor**

```
public java.awt.Color getTurretColor()
```

### **getRadarColor**

```
public java.awt.Color getRadarColor()
```

Returns the color of the radar.

**Returns:**

The color of the radar.

### **getBulletColor**

```
public java.awt.Color getBulletColor()
```

Returns the color of the bullets when fired.

**Returns:**

The color of the bullets when fired.

### **getScanColor**

```
public java.awt.Color getScanColor()
```

Returns the color of the scan arc.

**Returns:**

The color of the scan arc.

### **getTracksColor**

```
public java.awt.Color getTracksColor()
```

Returns the color of the tracks.

**Returns:**

The color of the tracks.



ALL CLASSES

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**Returns:**

The color of the gun.

**isDebuggingEnabled**

```
public boolean isDebuggingEnabled()
```

Checks if graphical debugging is enabled.

**Returns:**

true if graphical debugging is enabled; false otherwise.

ALL CLASSES

SUMMARY: NESTED | FIELD | CONSTR | METHOD     DETAIL: FIELD | CONSTR | METHOD