Ev3Dev

0.1.1

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Contents

Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 3

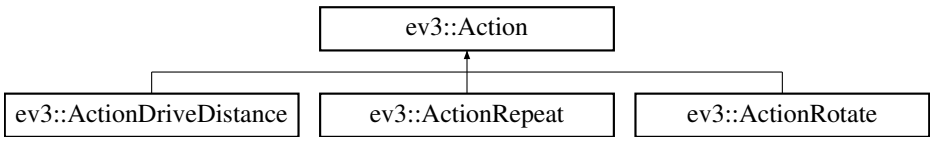
Class Documentation

3.1 ev3::Action Class Reference

Base class for all Action controlling classes.

`#include <Action.h>`

Inheritance diagram for ev3::Action:



Public Types

- enum ActionType {
  NOP, REPEAT_FOREVER, DRIVE_DISTANCE, ROTATE,
  STOP }

  Type of Action.
- typedef std::vector< Command * > CommandsVector

  Type for containing associated Command pointer.
- typedef std::function< bool(void) > EndCondition

  Type for lambda functions to store end of action condition.

Public Member Functions

- Action (CommandsVector commands, ActionType type)

  Constructor with CommandsVector and ActionType parameters.
- Action (CommandsVector commands)

  Constructor with CommandsVector parameter.
- Action (ActionType type)

  Constructor with ActionType parameter.
- virtual ~Action ()

Default destructor.

- virtual void execute ()

  Executes stored Commands in a sequence.
- virtual bool isFinished ()

  Check if Action condition is fullfilled.
- virtual std::string getActionPrototype ()

  Generate std::string prototype for Action.
- void setCommands (CommandsVector commands)

  Set Commands to be executed.
- void setEndCondition (EndCondition condition)

  Set end condition for Action.
- ActionType getType ()

  Get current Action type.

Static Public Attributes

- static const std::string EMPTY_PROTO

  String for empty Action prototype.

Protected Attributes

- ActionType _type

  Action type.
- CommandsVector _commands

  Vector of Commands.
- EndCondition _endCondition

  Lambda function defining Action end condition.

3.1.1 Detailed Description

Base class for all Action controlling classes.

Each Action contains of a sequence of many Commands and all of them are executed immediately, one after another. Action is valid, until specific Event occurs or its endCondition function returns true.

Action objects are instantiated accordingly to Robot model that uses them.

3.1.2 Member Enumeration Documentation

3.1.2.1 enum ev3::Action::ActionType

Type of Action.

It directly points to derived class being used.

See also

Robot::AvailableActions

Enumerator

NOP No operation.

REPEAT_FOREVER Repeats execution of other Actions.

DRIVE_DISTANCE Power Motor to reach certain distance.

ROTATE Rotate Robot for given angle.

STOP Stop all active motors.

3.1.3 Constructor & Destructor Documentation

3.1.3.1 Action::Action (CommandsVector *commands*, ActionType *type*)

Constructor with CommandsVector and ActionType parameters.

Parameters

commands	Commands stored within this Action.
type	Type of Action used.

3.1.3.2 Action::Action (CommandsVector *commands*)

Constructor with CommandsVector parameter.

Action type is set to Action::NOP .

Parameters

commands	Commands stored within this Action.

3.1.3.3 Action::Action (ActionType *type*)

Constructor with ActionType parameter.

Parameters

type	Type of Action used.

3.1.4 Member Function Documentation

3.1.4.1 std::string Action::getActionPrototype ( ) [virtual]

Generate std::string prototype for Action.

Returns

Encoded Action data into std::string.

Reimplemented in ev3::ActionRotate, and ev3::ActionDriveDistance.

3.1.4.2 Action::ActionType Action::getType ( )

Get current Action type.

Returns

ActionType value.

3.1.4.3 bool Action::isFinished ( ) [virtual]

Check if Action condition is fullfilled.

Returns

Value returned from Action::_endCondition.

3.1.4.4 void Action::setCommands (CommandsVector *commands*)

Set Commands to be executed.

Parameters

commands	CommandsVector with pointers to commands.

3.1.4.5 void Action::setEndCondition (EndCondition *condition*)

Set end condition for Action.

Parameters

condition	Lambda function returning bool value.

3.1.5 Member Data Documentation

3.1.5.1 EndCondition ev3::Action::_endCondition [protected]

Initial value:

```
= []()
        {
            return true;
        }
```

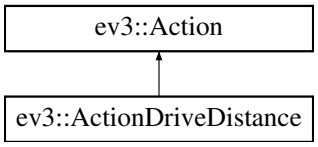
Lambda function defining Action end condition.

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/Action.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/Action.cpp

3.2 ev3::ActionDriveDistance Class Reference

Inheritance diagram for ev3::ActionDriveDistance:



Public Member Functions

- **ActionDriveDistance** (int distance)
- int **getDistance** ()
- virtual std::string getActionPrototype ()

  Generate std::string prototype for Action.

Additional Inherited Members

3.2.1 Member Function Documentation

3.2.1.1 std::string ActionDriveDistance::getActionPrototype ( ) [virtual]

Generate std::string prototype for Action.

Returns

Encoded Action data into std::string.

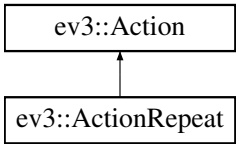
Reimplemented from ev3::Action.

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/Action.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/Action.cpp

3.3 ev3::ActionRepeat Class Reference

Inheritance diagram for ev3::ActionRepeat:



Public Member Functions

- **ActionRepeat** (std::vector< Action * > actions, unsigned n)
- virtual void execute ()

  Executes stored Commands in a sequence.
- void **setRepeatCondition** (EndCondition condition)

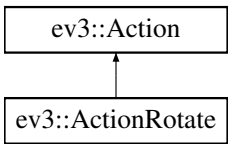
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/Action.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/Action.cpp

3.4 ev3::ActionRotate Class Reference

Inheritance diagram for ev3::ActionRotate:



Public Member Functions

- **ActionRotate** (int rotation)
- int **getRotation** ()
- virtual std::string getActionPrototype ()

  Generate std::string prototype for Action.

Additional Inherited Members

3.4.1 Member Function Documentation

3.4.1.1 std::string ActionRotate::getActionPrototype ( ) [virtual]

Generate std::string prototype for Action.

Returns

Encoded Action data into std::string.

Reimplemented from ev3::Action.

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/Action.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/Action.cpp

3.5 ev3::Agent Class Reference

Public Member Functions

- unsigned int **getId** ()
- void **setId** (const unsigned int id)
- unsigned int **getCommId** ()
- void **setCommId** (const unsigned int commId)

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/master/Agent.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/master/Agent.cpp

3.6 ev3::Behaviour Class Reference

Public Types

- typedef std::vector< Action * > **ActionsVector**

Public Member Functions

- **Behaviour** (ActionsVector actions)
- virtual void **execute** ()

Protected Attributes

- ActionsVector **_actions**

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/Behaviour.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/Behaviour.cpp

3.7 ev3dev::button Class Reference

Public Member Functions

- **button** (int bit)
- bool **pressed** () const

Static Public Attributes

- static button **back**
- static button **left**
- static button **right**
- static button **up**
- static button **down**
- static button **enter**

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.8 ev3::CircularBuffer< T > Class Template Reference

Public Member Functions

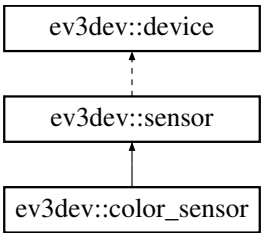
- **CircularBuffer** (unsigned int limit)
- void **push** (T object)
- bool **contain** (T object)

The documentation for this class was generated from the following file:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/utils/CircularBuffer.h

3.9 ev3dev::color_sensor Class Reference

Inheritance diagram for ev3dev::color_sensor:



Public Member Functions

- **color_sensor** (port_type port_=INPUT_AUTO)

Static Public Attributes

- static const std::string **mode_col_reflect** {"COL-REFLECT"}
- static const std::string **mode_col_ambient** {"COL-AMBIENT"}
- static const std::string **mode_col_color** {"COL-COLOR"}
- static const std::string **mode_ref_raw** {"REF-RAW"}
- static const std::string **mode_rgb_raw** {"RGB-RAW"}

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.10 ColorUtils Class Reference

Public Types

- typedef std::string **colorCode**

Static Public Attributes

- static const colorCode **RED**
- static const colorCode **GREEN** {"\033[32m"}
- static const colorCode **YELLOW** {"\033[33m"}
- static const colorCode **BLUE** {"\033[34m"}
- static const colorCode **RED_BOLD** {"\033[31;1m"}
- static const colorCode **GREEN_BOLD** {"\033[32;1m"}
- static const colorCode **YELLOW_BOLD** {"\033[33;1m"}
- static const colorCode **BLUE_BOLD** {"\033[34;1m"}
- static const colorCode **RED_FAINT** {"\033[31;2m"}
- static const colorCode **GREEN_FAINT** {"\033[32;2m"}
- static const colorCode **YELLOW_FAINT** {"\033[33;2m"}
- static const colorCode **BLUE_FAINT** {"\033[34;2m"}
- static const colorCode **RESET** {"\033[39;0m"}

3.10.1 Member Data Documentation

3.10.1.1 const ColorUtils::colorCode ColorUtils::RED [static]

Initial value:

```
{
    "\033[31m"
}
```

The documentation for this class was generated from the following files:

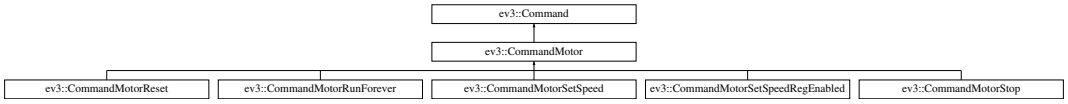
- /home/panda/Dokumenty/Repos/Ev3Dev/include/utils/ColorUtils.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/utils/ColorUtils.cpp

3.11 ev3::Command Class Reference

Base class for all command controlling classes.

`#include <Command.h>`

Inheritance diagram for ev3::Command:



Public Member Functions

- Command ()

  Default constructor.
- virtual void execute ()

  Execute stored function as a device command.
- virtual void printDebug ()

  Print Command's readable name.

Protected Attributes

- std::string _debugInfo = ""

  String containing Command's debug name.

3.11.1 Detailed Description

Base class for all command controlling classes.

Each Command class encapsulates basic motor or sensor operation.

The documentation for this class was generated from the following files:

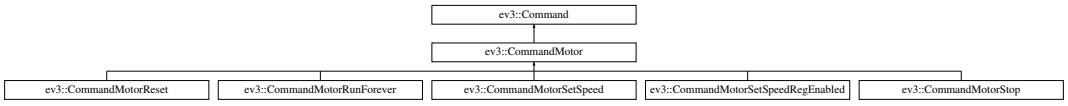
- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/Command.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/Command.cpp

3.12 ev3::CommandMotor Class Reference

Base class for all motor controlling commands.

`#include <CommandMotor.h>`

Inheritance diagram for ev3::CommandMotor:



Public Member Functions

- CommandMotor (Motor &motor)

  Constructor with ev3dev::motor parameter.
- virtual void printDebug () override

  Print CommandMotor readable name.

Protected Attributes

- const std::string SPEED_REGULATION_ON = "on"

  Command parameter to turn speed regulation on a Motor on.
- const std::string SPEED_REGULATION_OFF = "off"

  Command parameter to turn speed regulation on a Motor off.
- Motor _motor

  Motor on which this CommandMotor will be executed.

3.12.1 Detailed Description

Base class for all motor controlling commands.

See also

ev3dev::motor

3.12.2 Constructor & Destructor Documentation

3.12.2.1 CommandMotor::CommandMotor (Motor & *motor*)

Constructor with ev3dev::motor parameter.

Parameters

motor	Motor to execute CommandMotor on.

3.12.3 Member Function Documentation

3.12.3.1 void CommandMotor::printDebug ( ) [override], [virtual]

Print CommandMotor readable name.

Adds "[MOTOR]" tag in front of the name.

Reimplemented from ev3::Command.

The documentation for this class was generated from the following files:

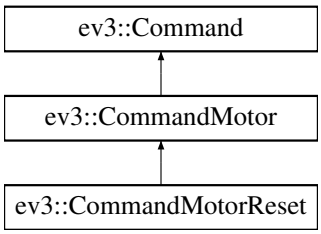
- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/CommandMotor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/CommandMotor.cpp

3.13 ev3::CommandMotorReset Class Reference

Call `reset()` method of containing Motor.

`#include <CommandMotor.h>`

Inheritance diagram for ev3::CommandMotorReset:



Public Member Functions

- CommandMotorReset (Motor &motor)

  Constructor with ev3dev::motor parameter.
- void execute () override

Additional Inherited Members

3.13.1 Detailed Description

Call `reset()` method of containing Motor.

3.13.2 Constructor & Destructor Documentation

3.13.2.1 CommandMotorReset::CommandMotorReset (Motor & *motor*)

Constructor with ev3dev::motor parameter.

Parameters

motor	Motor to execute CommandMotor on.

3.13.3 Member Function Documentation

3.13.3.1 void CommandMotorReset::execute ( ) [override], [virtual]

See also

Command

Reimplemented from ev3::Command.

The documentation for this class was generated from the following files:

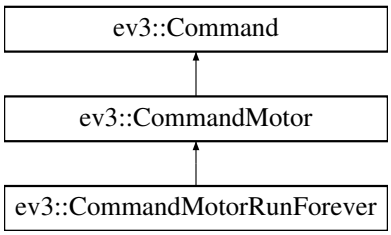
- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/CommandMotor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/CommandMotor.cpp

3.14 ev3::CommandMotorRunForever Class Reference

Call `run_forever()` method of containing Motor.

`#include <CommandMotor.h>`

Inheritance diagram for ev3::CommandMotorRunForever:



Public Member Functions

- CommandMotorRunForever (Motor &motor)
  Constructor with ev3dev::motor parameter.
- void execute () override

Additional Inherited Members

3.14.1 Detailed Description

Call `run_forever()` method of containing Motor.

3.14.2 Constructor & Destructor Documentation

3.14.2.1 CommandMotorRunForever::CommandMotorRunForever (Motor & *motor*)

Constructor with ev3dev::motor parameter.

Parameters

motor	Motor to execute CommandMotor on.

3.14.3 Member Function Documentation

3.14.3.1 void CommandMotorRunForever::execute ( ) [override], [virtual]

See also

Command

Reimplemented from ev3::Command.

The documentation for this class was generated from the following files:

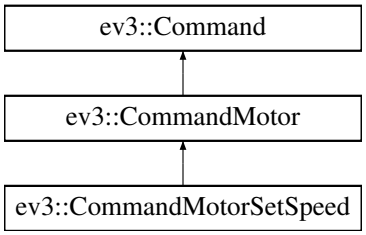
- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/CommandMotor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/CommandMotor.cpp

3.15 ev3::CommandMotorSetSpeed Class Reference

Call `set_speed_sp()` method of containing Motor.

`#include <CommandMotor.h>`

Inheritance diagram for ev3::CommandMotorSetSpeed:



Public Member Functions

- CommandMotorSetSpeed (Motor &motor, int value)
  Constructor with ev3dev::motor parameter.
- void execute () override

Additional Inherited Members

3.15.1 Detailed Description

Call `set_speed_sp()` method of containing Motor.

3.15.2 Constructor & Destructor Documentation

3.15.2.1 CommandMotorSetSpeed::CommandMotorSetSpeed (Motor & *motor,* int *value*)

Constructor with ev3dev::motor parameter.

Parameters

motor	Motor to execute CommandMotor on.
value	Speed value in tacho pulses per second.

Warning

Speed regulation must be turned on for this to take effect.

See also

CommandMotorSetSpeedRegEnabled

3.15.3 Member Function Documentation

3.15.3.1 void CommandMotorSetSpeed::execute ( ) [override], [virtual]

See also

Command

Reimplemented from ev3::Command.

The documentation for this class was generated from the following files:

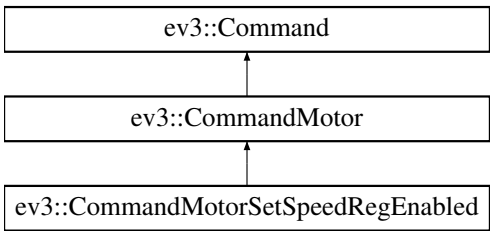
- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/CommandMotor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/CommandMotor.cpp

3.16 ev3::CommandMotorSetSpeedRegEnabled Class Reference

Call `set_speed_regulation_enabled()` method of containing Motor.

`#include <CommandMotor.h>`

Inheritance diagram for ev3::CommandMotorSetSpeedRegEnabled:



Public Member Functions

- CommandMotorSetSpeedRegEnabled (Motor &motor, bool value)

  Constructor with ev3dev::motor parameter.
- void execute () override

Additional Inherited Members

3.16.1 Detailed Description

Call `set_speed_regulation_enabled()` method of containing Motor.

3.16.2 Constructor & Destructor Documentation

3.16.2.1 CommandMotorSetSpeedRegEnabled::CommandMotorSetSpeedRegEnabled (Motor & *motor,* bool *value*)

Constructor with ev3dev::motor parameter.

Parameters

motor	Motor to execute CommandMotor on.
value	If true, turn speed regulation on, false to turn it off.

3.16.3 Member Function Documentation

3.16.3.1 void CommandMotorSetSpeedRegEnabled::execute ( ) `[override], [virtual]`

See also

Command

Reimplemented from ev3::Command.

The documentation for this class was generated from the following files:

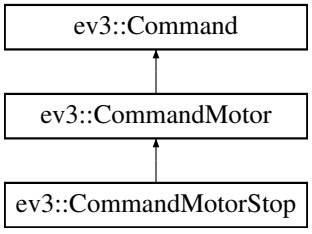
- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/CommandMotor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/CommandMotor.cpp

3.17 ev3::CommandMotorStop Class Reference

Call `stop()` method of containing Motor.

`#include <CommandMotor.h>`

Inheritance diagram for ev3::CommandMotorStop:



Public Member Functions

- CommandMotorStop (Motor &motor)

  Constructor with ev3dev::motor parameter.
- void execute () override

Additional Inherited Members

3.17.1 Detailed Description

Call `stop()` method of containing Motor.

3.17.2 Constructor & Destructor Documentation

3.17.2.1 CommandMotorStop::CommandMotorStop (Motor & *motor*)

Constructor with ev3dev::motor parameter.

Parameters

motor	Motor to execute CommandMotor on.

3.17.3 Member Function Documentation

3.17.3.1 void CommandMotorStop::execute ( ) [override], [virtual]

See also

Command

Reimplemented from ev3::Command.

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/action/CommandMotor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/action/CommandMotor.cpp

3.18 ev3::Communication Class Reference

Public Member Functions

- std::thread **createThread** (Queue< Message > *sendQueue, Queue< Message > *receiveQueue, bool isMaster=false)
- void **run** (Queue< Message > *sendQueue, Queue< Message > *receiveQueue, bool isMaster=false)

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/communication/Communication.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/communication/Communication.cpp

3.19 ev3::CommUtils Class Reference

Classes

- struct NetworkNode

Public Member Functions

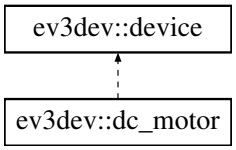
- int **preparePassiveSocket** (unsigned int portNumber)
- int **sendMessage** (unsigned int socket, unsigned int port, Message message, bool isMaster, unsigned int repeat=SENT_MESSAGE_COPIES)
- int **receiveMessage** (unsigned int socket, Message &msg, NetworkNode &sender)
- int **receiveMessageDelay** (unsigned int socket, Message &msg, NetworkNode &sender, unsigned int ms↩ Delay=DEFAULT_RECEIVE_DELAY)

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/communication/CommUtils.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/communication/CommUtils.cpp

3.20 ev3dev::dc_motor Class Reference

Inheritance diagram for ev3dev::dc_motor:



Public Member Functions

- **dc_motor** (port_type port_=OUTPUT_AUTO)
- auto **set_command** (std::string v) -> decltype(∗this)
- mode_set **commands** () const
- std::string **driver_name** () const
- int **duty_cycle** () const
- int **duty_cycle_sp** () const
- auto **set_duty_cycle_sp** (int v) -> decltype(∗this)
- std::string **polarity** () const
- auto **set_polarity** (std::string v) -> decltype(∗this)
- std::string **port_name** () const
- int **ramp_down_sp** () const
- auto **set_ramp_down_sp** (int v) -> decltype(∗this)
- int **ramp_up_sp** () const
- auto **set_ramp_up_sp** (int v) -> decltype(∗this)
- mode_set **state** () const
- auto **set_stop_command** (std::string v) -> decltype(∗this)
- mode_set **stop_commands** () const
- void **run_forever** ()
- void **run_timed** ()
- void **stop** ()

Static Public Attributes

- static const std::string **command_run_forever** {"run-forever"}
- static const std::string **command_run_timed** {"run-timed"}
- static const std::string **command_stop** {"stop"}
- static const std::string **polarity_normal** {"normal"}
- static const std::string **polarity_inverted** {"inverted"}
- static const std::string **stop_command_coast** {"coast"}
- static const std::string **stop_command_brake** {"brake"}

Protected Attributes

- std::string **_port_name**

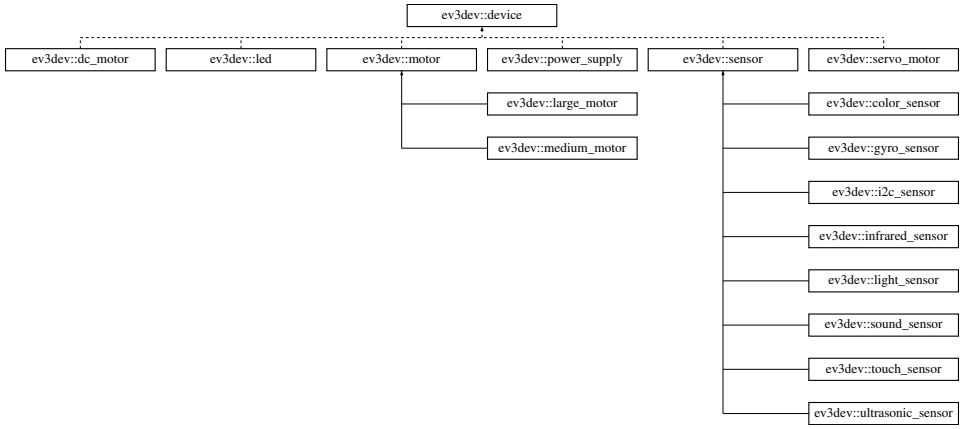
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.21 ev3dev::device Class Reference

Inheritance diagram for ev3dev::device:



Public Member Functions

- bool **connect** (const std::string &dir, const std::string &pattern, const std::map< std::string, std::set< std::string >> &match) noexcept
- bool **connected** () const
- int **device_index** () const
- int **get_attr_int** (const std::string &name) const
- void **set_attr_int** (const std::string &name, int value)
- std::string **get_attr_string** (const std::string &name) const
- void **set_attr_string** (const std::string &name, const std::string &value)
- std::string **get_attr_line** (const std::string &name) const
- mode_set **get_attr_set** (const std::string &name, std::string *pCur=nullptr) const
- std::string **get_attr_from_set** (const std::string &name) const

Protected Attributes

- std::string **_path**
- int **_device_index** = -1

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.22 ev3::Devices Class Reference

Public Types

- typedef std::map< ev3dev::port_type, Motor > **MotorsVector**
- typedef std::map< ev3dev::port_type, Sensor > **SensorsVector**
- typedef std::vector< std::pair< ev3dev::port_type, ev3dev::device_type > > **RequiredDevices**
- typedef std::map< ev3dev::port_type, std::vector< std::pair< int, int > > > **SensorStatus**

Public Member Functions

- bool **checkDevices** (RequiredDevices &devices)
- void **update** ()
- void **addListener** ()
- Motor **getMotor** (ev3dev::port_type port)
- Sensor **getSensor** (ev3dev::port_type port)
- void **stopAllDevices** ()

Static Public Member Functions

- static Devices * **getInstance** ()
- static void **destroy** ()

Static Public Attributes

- static const ev3dev::port_type **PORT_ANY** {"any"}

Protected Member Functions

- **Devices** (const Devices &)
- Devices & **operator=** (const Devices &)

Protected Attributes

- MotorsVector **_motors**
- SensorsVector **_sensors**
- SensorStatus **_status**

Static Protected Attributes

- static Devices * **_instance** = nullptr

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/Devices.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/Devices.cpp

3.23 ev3::Event Class Reference

The documentation for this class was generated from the following file:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/communication/Event.h

3.24 ev3::EventQueue Class Reference

Public Member Functions

- void **push** (Event message)
- Event **pop** ()
- bool **empty** ()
- unsigned int **size** ()

Static Public Member Functions

- static EventQueue * **getInstance** ()
- static void **destroy** ()

Protected Member Functions

- **EventQueue** (const EventQueue &)
- EventQueue & **operator=** (const EventQueue &)

Protected Attributes

- std::queue< Event > **_queue**
- std::mutex **_mutex**

Static Protected Attributes

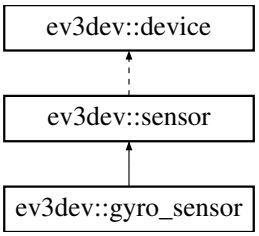
- static EventQueue * **_instance** = nullptr

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/utils/EventQueue.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/utils/EventQueue.cpp

3.25 ev3dev::gyro_sensor Class Reference

Inheritance diagram for ev3dev::gyro_sensor:



Public Member Functions

- **gyro_sensor** (port_type port_=INPUT_AUTO)

Static Public Attributes

- static const std::string **mode_gyro_ang** {"GYRO-ANG"}
- static const std::string **mode_gyro_rate** {"GYRO-RATE"}
- static const std::string **mode_gyro_fas** {"GYRO-FAS"}
- static const std::string **mode_gyro_g_a** {"GYRO-G&A"}
- static const std::string **mode_gyro_cal** {"GYRO-CAL"}

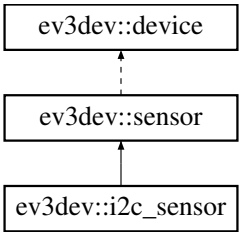
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.26 ev3dev::i2c_sensor Class Reference

Inheritance diagram for ev3dev::i2c_sensor:



Public Member Functions

- **i2c_sensor** (port_type port=INPUT_AUTO)
- **i2c_sensor** (port_type port, address_type address)
- std::string **fw_version** () const
- int **poll_ms** () const
- auto **set_poll_ms** (int v) -> decltype(*this)

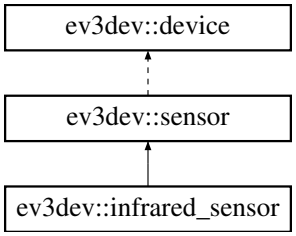
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.27 ev3dev::infrared_sensor Class Reference

Inheritance diagram for ev3dev::infrared_sensor:



Public Member Functions

- **infrared_sensor** (port_type port_=INPUT_AUTO)

Static Public Attributes

- static const std::string **mode_ir_prox** {"IR-PROX"}
- static const std::string **mode_ir_seek** {"IR-SEEK"}
- static const std::string **mode_ir_remote** {"IR-REMOTE"}
- static const std::string **mode_ir_rem_a** {"IR-REM-A"}
- static const std::string **mode_ir_cal** {"IR-CAL"}

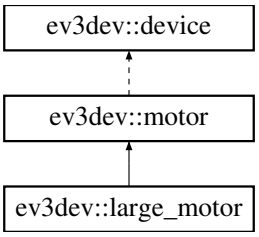
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.28 ev3dev::large_motor Class Reference

Inheritance diagram for ev3dev::large_motor:



Public Member Functions

- **large_motor** (port_type port_=OUTPUT_AUTO)

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.29 ev3dev::lcd Class Reference

Public Member Functions

- bool **available** () const
- uint32_t **resolution_x** () const
- uint32_t **resolution_y** () const
- uint32_t **bits_per_pixel** () const
- uint32_t **frame_buffer_size** () const
- uint32_t **line_length** () const
- unsigned char * **frame_buffer** ()
- void **fill** (unsigned char pixel)

Protected Member Functions

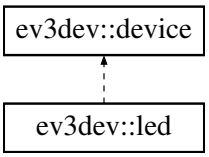
- void **init** ()
- void **deinit** ()

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.30 ev3dev::led Class Reference

Inheritance diagram for ev3dev::led:



Public Member Functions

- **led** (std::string name)
- int **max_brightness** () const
- int **brightness** () const
- auto **set_brightness** (int v) -> decltype(*this)
- std::string **trigger** () const
- auto **set_trigger** (std::string v) -> decltype(*this)
- mode_set **triggers** () const
- void **on** ()
- void **off** ()
- void **flash** (unsigned interval_ms)
- void **set_on_delay** (unsigned ms)
- void **set_off_delay** (unsigned ms)

Static Public Member Functions

- static void **red_on** ()
- static void **red_off** ()
- static void **green_on** ()
- static void **green_off** ()
- static void **all_on** ()
- static void **all_off** ()

Static Public Attributes

- static led **red_right** {"ev3-right0:red:ev3dev"}
- static led **red_left** {"ev3-left0:red:ev3dev"}
- static led **green_right** {"ev3-right1:green:ev3dev"}
- static led **green_left** {"ev3-left1:green:ev3dev"}

Protected Attributes

- int **_max_brightness** = 0

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.31 ev3::LedControl Class Reference

Public Types

- enum **LedType** {
  RED_L = 1, **RED_R** = 1 << 1, **GREEN_L** = 1 << 2, **GREEN_R** = 1 << 3,
  RED_ALL = RED_L | RED_R, **GREEN_ALL** = GREEN_L | GREEN_R, **ALL** = RED_ALL | GREEN_ALL }
- enum **LedColors** { **RED**, **AMBER**, **YELLOW**, **GREEN** }

Public Member Functions

- void **on** (unsigned int leds=LedType::ALL, unsigned int brightness=MAX_BRIGHTNESS)
- void **onExclusive** (unsigned int leds=LedType::ALL, unsigned int brightness=MAX_BRIGHTNESS)
- void **off** (unsigned int leds=LedType::ALL)
- void **setColor** (LedColors color)
- void **reset** ()
- void **flash** (unsigned int leds, unsigned int msInterval, unsigned int repeat=1, unsigned int brightness↩ Red=MAX_BRIGHTNESS, unsigned int brightnessGreen=MAX_BRIGHTNESS)
- void **flashColor** (LedColors color, unsigned int msInterval, unsigned int repeat=1)
- void **endFlashing** ()

Static Public Attributes

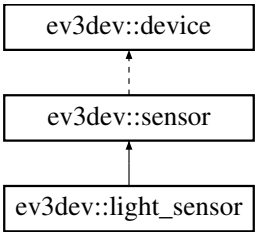
- static const unsigned int **MAX_BRIGHTNESS** = 255

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/control/LedControl.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/control/LedControl.cpp

3.32 ev3dev::light_sensor Class Reference

Inheritance diagram for ev3dev::light_sensor:



Public Member Functions

- **light_sensor** (port_type port_=INPUT_AUTO)

Static Public Attributes

- static const std::string **mode_reflect** {"REFLECT"}
- static const std::string **mode_ambient** {"AMBIENT"}

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.33 ev3::Logger Class Reference

Public Types

- enum **LogLevel** {
  VERBOSE = 1, **DEBUG** = 1 << 1, **INFO** = 1 << 2, **WARNING** = 1 << 3,
  ERROR = 1 << 4 }
- enum **LogOutput** { **STD_OUT** = 1, **STD_ERR** = 1 << 1, **FILE** = 1 << 2 }

Public Member Functions

- void **log** (std::string message, LogLevel level, LogOutput output=STD_OUT)
- void **setLogLevel** (LogLevel level)
- void **setLogOutput** (LogOutput output)

Static Public Member Functions

- static Logger * **getInstance** ()
- static void **destroy** ()

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/utils/Logger.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/utils/Logger.cpp

3.34 ev3::Master Class Reference

Public Types

- typedef std::map< unsigned int, Agent > **AgentMap**

Public Member Functions

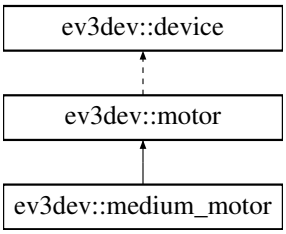
- std::thread **createThread** (Queue< Message > *sendQueue, Queue< Message > *receiveQueue)
- void **run** (Queue< Message > *sendQueue, Queue< Message > *receiveQueue)
- void **stop** ()

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/master/Master.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/master/Master.cpp

3.35 ev3dev::medium_motor Class Reference

Inheritance diagram for ev3dev::medium_motor:



Public Member Functions

- **medium_motor** (port_type port_=OUTPUT_AUTO)

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.36 ev3::Message Class Reference

Public Types

- enum **MessageType** {
  EMPTY, **AGENT**, **MASTER**, **MASTER_OVER**,
  PING, **PONG**, **AGENT_OVER**, **ABORT** }
- typedef std::vector< std::string > **StringVector**

Public Member Functions

- **Message** (unsigned int senderId, unsigned int receiverId, unsigned int messageId, MessageType type, StringVector parameters={})
- unsigned int **getSenderId** ()
- unsigned int **getReceiverId** ()
- unsigned int **getMessageId** ()
- MessageType **getType** ()
- StringVector **getParameters** ()
- bool **empty** ()
- void **print** ()

Static Public Member Functions

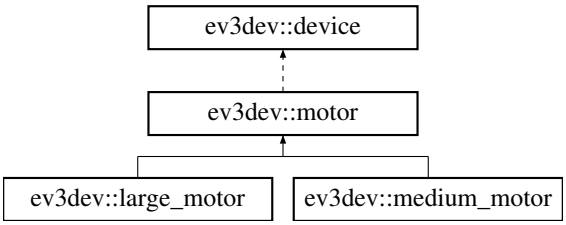
- static std::string **encodeMessage** (Message &message)
- static Message **decodeMessage** (const std::string msg)

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/communication/Message.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/communication/Message.cpp

3.37 ev3dev::motor Class Reference

Inheritance diagram for ev3dev::motor:



Public Types

- typedef device_type **motor_type**

Public Member Functions

- **motor** (port_type)
- **motor** (port_type, const motor_type &)
- auto **set_command** (std::string v) -> decltype(*this)
- mode_set **commands** () const
- int **count_per_rot** () const
- std::string **driver_name** () const
- int **duty_cycle** () const
- int **duty_cycle_sp** () const
- auto **set_duty_cycle_sp** (int v) -> decltype(*this)
- std::string **encoder_polarity** () const
- auto **set_encoder_polarity** (std::string v) -> decltype(*this)
- std::string **polarity** () const
- auto **set_polarity** (std::string v) -> decltype(*this)
- std::string **port_name** () const
- int **position** () const
- auto **set_position** (int v) -> decltype(*this)
- int **position_p** () const
- auto **set_position_p** (int v) -> decltype(*this)
- int **position_i** () const
- auto **set_position_i** (int v) -> decltype(*this)
- int **position_d** () const
- auto **set_position_d** (int v) -> decltype(*this)
- int **position_sp** () const
- auto **set_position_sp** (int v) -> decltype(*this)
- int **speed** () const
- int **speed_sp** () const
- auto **set_speed_sp** (int v) -> decltype(*this)
- int **ramp_up_sp** () const
- auto **set_ramp_up_sp** (int v) -> decltype(*this)
- int **ramp_down_sp** () const
- auto **set_ramp_down_sp** (int v) -> decltype(*this)
- std::string **speed_regulation_enabled** () const
- auto **set_speed_regulation_enabled** (std::string v) -> decltype(*this)
- int **speed_regulation_p** () const
- auto **set_speed_regulation_p** (int v) -> decltype(*this)
- int **speed_regulation_i** () const
- auto **set_speed_regulation_i** (int v) -> decltype(*this)
- int **speed_regulation_d** () const
- auto **set_speed_regulation_d** (int v) -> decltype(*this)
- mode_set **state** () const
- std::string **stop_command** () const
- auto **set_stop_command** (std::string v) -> decltype(*this)
- mode_set **stop_commands** () const
- int **time_sp** () const
- auto **set_time_sp** (int v) -> decltype(*this)
- void **run_forever** ()
- void **run_to_abs_pos** ()
- void **run_to_rel_pos** ()
- void **run_timed** ()
- void **run_direct** ()
- void **stop** ()
- void **reset** ()
- motor_type **type_name** ()

Static Public Attributes

- static const motor_type **motor_large** {"lego-ev3-l-motor"}
- static const motor_type **motor_medium** {"lego-ev3-m-motor"}
- static const std::string **command_run_forever** {"run-forever"}
- static const std::string **command_run_to_abs_pos** {"run-to-abs-pos"}
- static const std::string **command_run_to_rel_pos** {"run-to-rel-pos"}
- static const std::string **command_run_timed** {"run-timed"}
- static const std::string **command_run_direct** {"run-direct"}
- static const std::string **command_stop** {"stop"}
- static const std::string **command_reset** {"reset"}
- static const std::string **encoder_polarity_normal** {"normal"}
- static const std::string **encoder_polarity_inverted** {"inverted"}
- static const std::string **polarity_normal** {"normal"}
- static const std::string **polarity_inverted** {"inverted"}
- static const std::string **speed_regulation_on** {"on"}
- static const std::string **speed_regulation_off** {"off"}
- static const std::string **stop_command_coast** {"coast"}
- static const std::string **stop_command_brake** {"brake"}
- static const std::string **stop_command_hold** {"hold"}

Protected Member Functions

- bool **connect** (const std::map< std::string, std::set< std::string >> &) noexcept

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.38 ev3::Motor Class Reference

Public Member Functions

- **Motor** (ev3dev::motor motor)
- ev3dev::motor **getMotor** ()

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/Motor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/Motor.cpp

3.39 ev3::CommUtils::NetworkNode Struct Reference

Public Attributes

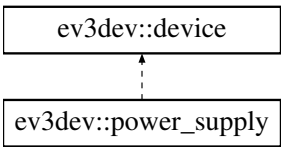
- unsigned int **port**
- std::string **ipAddress**

The documentation for this struct was generated from the following file:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/communication/CommUtils.h

3.40 ev3dev::power_supply Class Reference

Inheritance diagram for ev3dev::power_supply:



Public Member Functions

- **power_supply** (std::string name)
- int **measured_current** () const
- int **measured_voltage** () const
- int **max_voltage** () const
- int **min_voltage** () const
- std::string **technology** () const
- std::string **type** () const
- float **measured_amps** () const
- float **measured_volts** () const

Static Public Attributes

- static power_supply **battery** {""}

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.41 ev3::Queue< T > Class Template Reference

Public Member Functions

- void **push** (T message)
- T **pop** ()
- bool **empty** ()

The documentation for this class was generated from the following file:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/utils/Queue.h

3.42 ev3dev::remote_control Class Reference

Public Types

- enum **buttons** {
  red_up = (1 << 0), **red_down** = (1 << 1), **blue_up** = (1 << 2), **blue_down** = (1 << 3),
  beacon = (1 << 4) }

Public Member Functions

- **remote_control** (unsigned channel=1)
- **remote_control** (infrared_sensor &, unsigned channel=1)
- bool **connected** () const
- unsigned **channel** () const
- bool **process** ()

Public Attributes

- std::function< void(bool)> **on_red_up**
- std::function< void(bool)> **on_red_down**
- std::function< void(bool)> **on_blue_up**
- std::function< void(bool)> **on_blue_down**
- std::function< void(bool)> **on_beacon**
- std::function< void(int)> **on_state_change**

Protected Member Functions

- virtual void **on_value_changed** (int value)

Protected Attributes

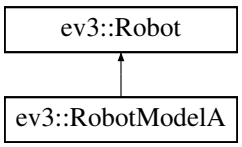
- infrared_sensor * **_sensor** = nullptr
- bool **_owns_sensor** = false
- unsigned **_channel** = 0
- int **_value** = 0
- int **_state** = 0

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.43 ev3::Robot Class Reference

Inheritance diagram for ev3::Robot:



Public Types

- typedef std::vector< Action::ActionType > AvailableActions

  Type for specifying all available actions for given Robot model.

Public Member Functions

- **Robot** (Devices::RequiredDevices devices, AvailableActions actions)
- std::thread **createThread** (Queue< Message > *sendQueue, Queue< Message > *receiveQueue)
- virtual void **run** (Queue< Message > *sendQueue, Queue< Message > *receiveQueue)
- void **stop** ()

Protected Attributes

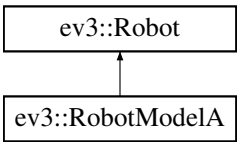
- unsigned int **_id** = 0
- unsigned int **_commId** = 0
- float **_pulsePerUnitRatio** = 1.f
- Devices::RequiredDevices **_requiredDevices**
- AvailableActions **_availableActions**
- Behaviour **_currentBehaviour**
- Queue< Message > * **_sendQueue**
- Queue< Message > * **_receiveQueue**
- LedControl **_ledControl**
- RobotState * **_state** = new RobotStateIdle(&_ledControl)

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/Robot.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/Robot.cpp

3.44 ev3::RobotModelA Class Reference

Inheritance diagram for ev3::RobotModelA:



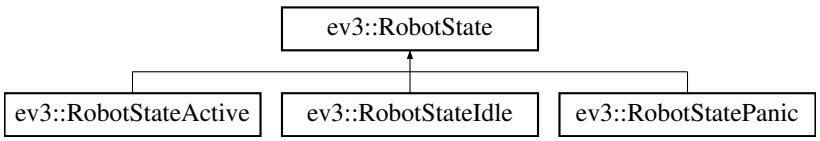
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/RobotModelA.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/RobotModelA.cpp

3.45 ev3::RobotState Class Reference

Inheritance diagram for ev3::RobotState:



Public Types

- enum **States** {
  IDLE, **ACTIVE**, **WORKING**, **PAUSED**,
  PANIC }
- typedef std::map< Message::MessageType, States > **ChangeMap**

Public Member Functions

- **RobotState** (ChangeMap changes, LedControl *led)
- virtual RobotState * **process** (Message msg)
- Message::MessageType **getPendingMessage** ()
- void **updateTimer** ()

Static Public Attributes

- static const float **MASTER_TIMEOUT** = 10.f * 1000

Protected Member Functions

- RobotState * **switchState** (Message::MessageType type)
- RobotState * **changeState** (States state)

Protected Attributes

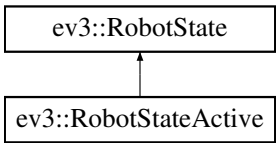
- States **_state**
- ChangeMap **_changes**
- LedControl * **_led**
- Message::MessageType **_pendingMessage** = Message::EMPTY
- HighResClock::time_point **_masterTimeout** = HighResClock::now()

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/RobotState.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/RobotState.cpp

3.46 ev3::RobotStateActive Class Reference

Inheritance diagram for ev3::RobotStateActive:



Public Member Functions

- **RobotStateActive** (LedControl *led)
- RobotState * **process** (Message msg)

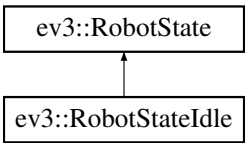
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/RobotState.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/RobotState.cpp

3.47 ev3::RobotStateIdle Class Reference

Inheritance diagram for ev3::RobotStateIdle:



Public Member Functions

- **RobotStateIdle** (LedControl ∗led)
- RobotState ∗ **process** (Message msg)

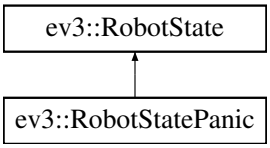
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/RobotState.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/RobotState.cpp

3.48 ev3::RobotStatePanic Class Reference

Inheritance diagram for ev3::RobotStatePanic:



Public Member Functions

- **RobotStatePanic** (LedControl ∗led)
- RobotState ∗ **process** (Message msg)

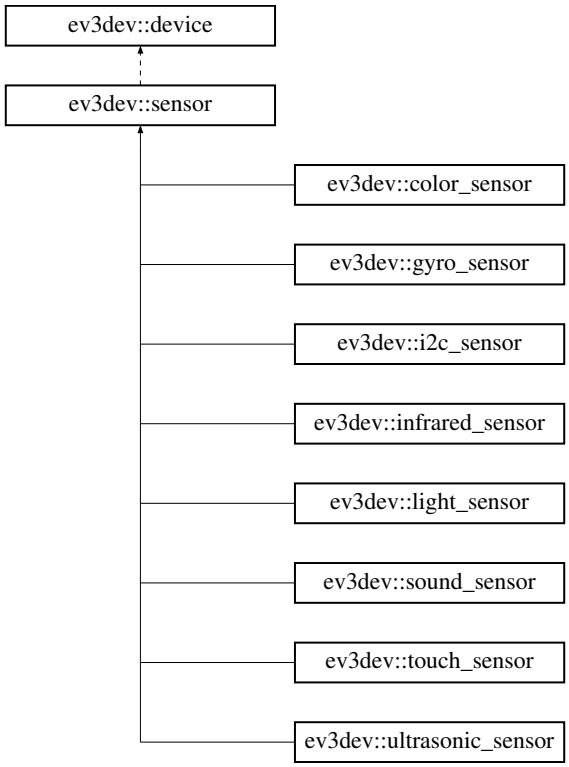
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/RobotState.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/RobotState.cpp

3.49 ev3dev::sensor Class Reference

Inheritance diagram for ev3dev::sensor:



Public Types

- typedef device_type **sensor_type**

Public Member Functions

- **sensor** (port_type)
- **sensor** (port_type, const std::set< sensor_type > &)
- int **value** (unsigned index=0) const
- float **float_value** (unsigned index=0) const
- std::string **type_name** () const
- std::string **bin_data_format** () const
- const std::vector< char > & **bin_data** () const
- template<class T >
  void **bin_data** (T *buf) const
- auto **set_command** (std::string v) -> decltype(*this)
- mode_set **commands** () const
- int **decimals** () const
- std::string **driver_name** () const
- std::string **mode** () const
- auto **set_mode** (std::string v) -> decltype(*this)
- mode_set **modes** () const
- int **num_values** () const
- std::string **port_name** () const
- std::string **units** () const

Static Public Attributes

- static const sensor_type **ev3_touch** {"lego-ev3-touch"}
- static const sensor_type **ev3_color** {"lego-ev3-uart-29"}
- static const sensor_type **ev3_ultrasonic** {"lego-ev3-uart-30"}
- static const sensor_type **ev3_gyro** {"lego-ev3-uart-32"}
- static const sensor_type **ev3_infrared** {"lego-ev3-uart-33"}
- static const sensor_type **nxt_touch** {"lego-nxt-touch"}
- static const sensor_type **nxt_light** {"lego-nxt-light"}
- static const sensor_type **nxt_sound** {"lego-nxt-sound"}
- static const sensor_type **nxt_ultrasonic** {"lego-nxt-us"}
- static const sensor_type **nxt_i2c_sensor** {"nxt-i2c-sensor"}
- static const sensor_type **nxt_analog** {"nxt-analog"}
- static const sensor_type **custom_ultrasonic** {"lego-ev3-us"}
- static const sensor_type **custom_gyro** {"lego-ev3-gyro"}
- static const sensor_type **custom_color** {"lego-ev3-color"}

Protected Member Functions

- bool **connect** (const std::map< std::string, std::set< std::string >> &) noexcept

Protected Attributes

- std::vector< char > **_bin_data**

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.50 ev3::Sensor Class Reference

Public Member Functions

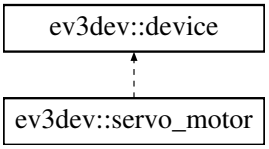
- **Sensor** (ev3dev::sensor sensor)
- ev3dev::sensor **getSensor** ()
- int **getValue** (unsigned int n)
- float **getValueF** (unsigned int n)
- int **getDecimals** ()
- unsigned int **getNumValues** ()

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/robot/Sensor.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/robot/Sensor.cpp

3.51 ev3dev::servo_motor Class Reference

Inheritance diagram for ev3dev::servo_motor:



Public Member Functions

- **servo_motor** (port_type port_=OUTPUT_AUTO)
- auto **set_command** (std::string v) -> decltype(∗this)
- std::string **driver_name** () const
- int **max_pulse_sp** () const
- auto **set_max_pulse_sp** (int v) -> decltype(∗this)
- int **mid_pulse_sp** () const
- auto **set_mid_pulse_sp** (int v) -> decltype(∗this)
- int **min_pulse_sp** () const
- auto **set_min_pulse_sp** (int v) -> decltype(∗this)
- std::string **polarity** () const
- auto **set_polarity** (std::string v) -> decltype(∗this)
- std::string **port_name** () const
- int **position_sp** () const
- auto **set_position_sp** (int v) -> decltype(∗this)
- int **rate_sp** () const
- auto **set_rate_sp** (int v) -> decltype(∗this)
- mode_set **state** () const
- void **run** ()
- void **float_** ()

Static Public Attributes

- static const std::string **command_run** {"run"}
- static const std::string **command_float** {"float"}
- static const std::string **polarity_normal** {"normal"}
- static const std::string **polarity_inverted** {"inverted"}

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.52 ev3::SignalHandler Class Reference

Static Public Member Functions

- static void **HandleSignal** (int signum)

Static Public Attributes

- static Robot * **robot** = nullptr
- static Master * **master** = nullptr

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/utils/SignalHandler.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/utils/SignalHandler.cpp

3.53 ev3dev::sound Class Reference

Static Public Member Functions

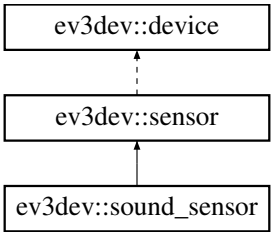
- static void **beep** ()
- static void **tone** (unsigned frequency, unsigned ms)
- static void **play** (const std::string &soundfile, bool bSynchronous=false)
- static void **speak** (const std::string &text, bool bSynchronous=false)
- static unsigned **volume** ()
- static void **set_volume** (unsigned)

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.54 ev3dev::sound_sensor Class Reference

Inheritance diagram for ev3dev::sound_sensor:



Public Member Functions

- **sound_sensor** (port_type port_=INPUT_AUTO)

Static Public Attributes

- static const std::string **mode_db** {"DB"}
- static const std::string **mode_dba** {"DBA"}

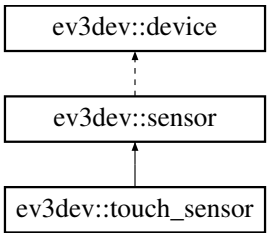
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.55 ev3dev::touch_sensor Class Reference

Inheritance diagram for ev3dev::touch_sensor:



Public Member Functions

- **touch_sensor** (port_type port_=INPUT_AUTO)

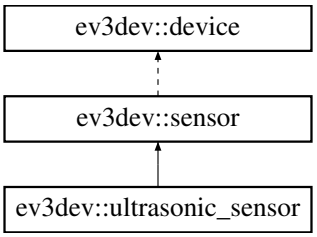
Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

3.56 ev3dev::ultrasonic_sensor Class Reference

Inheritance diagram for ev3dev::ultrasonic_sensor:



Public Member Functions

- **ultrasonic_sensor** (port_type port_=INPUT_AUTO)

Static Public Attributes

- static const std::string **mode_us_dist_cm** {"US-DIST-CM"}
- static const std::string **mode_us_dist_in** {"US-DIST-IN"}
- static const std::string **mode_us_listen** {"US-LISTEN"}
- static const std::string **mode_us_si_cm** {"US-SI-CM"}
- static const std::string **mode_us_si_in** {"US-SI-IN"}

Additional Inherited Members

The documentation for this class was generated from the following files:

- /home/panda/Dokumenty/Repos/Ev3Dev/include/ev3dev/ev3dev.h
- /home/panda/Dokumenty/Repos/Ev3Dev/src/ev3dev/ev3dev.cpp

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