

# rosmariokart

A "mariokart" clone, but made for real robots.

sumo

## ROS driver node

To launch the game:

```
1 $ roslaunch rosmariokart rosmariokart.launch
```

### Node parameters

- `~player_1_name`, `~player_2_name`, `~player_3_name`, `~player_4_name` [string, default: ""]

The name of each player. Leave empty for no player. At least fields `player_1_name` and `player_2_name` must be set. As documented below, these names will be used as namespaces to access various topics and parameters.

- `~curse_XXX_timeout` [double, seconds, default: 2 seconds]

The duration of each curse. XXX is among the following: `boo`, `goldenmushroom`, `lightning`, `mirror`, `mushroom`, `redshell_coming`, `redshell_hit`, `star`, `timebomb_hit`.

- `~axis_180turn` [int, default: 4]

The joystick axis to perform 180° turns.

- `~axis_90turn` [int, default: 3]

The joystick axis to perform 90° turns.

- `~axis_angular` [int, default: 2]

The joystick axis to control angular speed.

- `~axis_linear` [int, default: 2]

The joystick axis to control linear speed.

- `~button_item` [int, default: 3]

The joystick button for throwing an item.

- `/ROBOT/scale_angular`, for ex: `/mip/scale_angular` [int, rad.s-1/joy\_unit, default: 1]

The multiplication factor that converts an axis value into an angular speed.

- `/ROBOT/scale_linear`, for ex: `/mip/scale_linear` [int, rad.s-1/joy\_unit, default: 1]

The multiplication factor that converts an axis value into a linear speed.

### Subscriptions

- `/ROBOT/joy`, for ex: `/mip/joy` [sensor\_msgs::Joy]

The joystick commands.

### Publications

- `/ROBOT/cmd_vel`, for ex: `/mip/scale_linear` [geometry\_msgs::Twist]

The speed orders.

- `/ROBOT/animation`, for ex: `/mip/animation` [std\_msgs::String]

Predefined animations that can be specific to each robot. Among `hit`, `lose`, `mock`, `win`.

- /ROBOT/sharp\_turn, for ex: /mip/sharp\_turn [std\_msgs::Float32]

The on-the-spot speed orders, for sharp turns like 90°.

## Credits

### Images

- doc/ori-robot-mip-noir-wowwee-1280.jpg: [robot-advance.com](http://robot-advance.com)
- data/items/BooCurse.png: [nocookie.net](http://nocookie.net)
- data/items/jumping\_sumo\_brown.jpg: [amain.com](http://amain.com)
- data/items/joyypad.png: [myiconfinder.com](http://myiconfinder.com)
- data/items/TimeBomb.png: [isthisabomb.com](http://isthisabomb.com)
- data/items/RocketStartCurse.png: [isthisabomb.com](http://isthisabomb.com)
- data/items/TimeBombCurse.png: [mariowiki.com](http://mariowiki.com)
- data/lakitu/\*.png: [press-select.fr](http://press-select.fr) [mariofusion.free.fr](http://mariofusion.free.fr) [deviantart.net](http://deviantart.net)
- data/robots/random\_robot.png: [openclipart.org](http://openclipart.org)
- data/robots/stage\_black\_bg.png: [playerstage.org](http://playerstage.org)
- data/robots/white\_mip\_black\_bg.png: [wowwee.com](http://wowwee.com)
- data/robots/white\_sumo\_black\_bg.png: [parrot.com](http://parrot.com)

### Sounds

- starman.wav: [superluigibros.com](http://superluigibros.com)
- boost.wav, boosteat.wav, cpuspin.wav, cputhrow.wav, gotitem.wav, itemreel.wav, racestart.wav: [superluigibros.com](http://superluigibros.com)
- mk64\_countdown.wav: [themushroomkingdom.net](http://themushroomkingdom.net)
- lightning.wav: [youtube.com](http://youtube.com)
- quartz.wav: [freesound.org](http://freesound.org)
- timebomb.wav: [soundbible.com](http://soundbible.com)

### Tracks

- config/bitmaps/Mariocircuit1.\* [mariokart.wikia.com](http://mariokart.wikia.com)

m8rkq88vl [m8r-kq88vl@mailinator.com](mailto:m8r-kq88vl@mailinator.com)