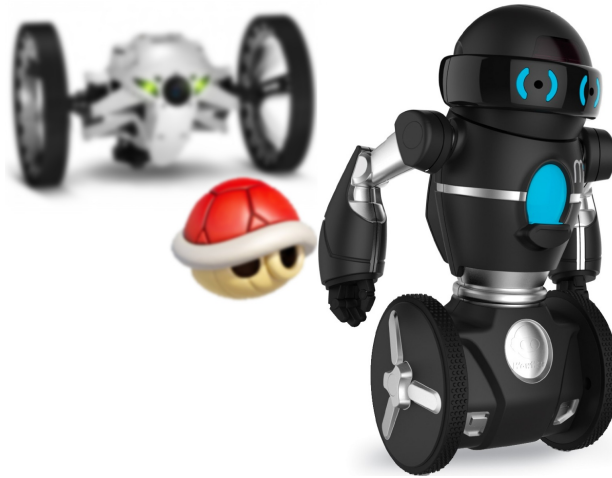


rosmariokart



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



ROS driver node

1. Dependencies included in the Ubuntu packages

Please run the [rosdep](#) utility:

```
1 $ sudo apt-get install libsdl2-gfx-dev libsdl2-image-dev libsdl2-mixer-dev
2 $ sudo apt-get install python-rosdep
3 $ sudo rosdep init
4 $ rosdep update
5 $ rosdep install rosmariokart --ignore-src
```

2. 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

Fonts

- `fonts/LCD2U____.TTF`: myfontfree.com

Images

- `doc/ori-robot-mip-noir-wowwee-1280.jpg`: robot-advance.com
- `data/items/supermariokart/Boo*.png`: fantendo.wikia.com
- `data/items/supermariokart/GoldenMushroom*.png`: mario.wiki.net
- `data/items/supermariokart/Lightning*.png`: mariokart.wikia.com
- `data/items/supermariokart/Mushroom*.png`: nintendo.wikia.com
- `data/items/supermariokart/RedShell*.png`: mariokart.wikia.com
- `data/items/supermariokart/TimeBombCurse.png`: isthisabomb.com
- `data/items/supermariokart/RocketStartCurse.png`: mariowiki.com
- `data/items/supermariokart/Star.png`: nintendo.wikia.com
- `data/items/supertuxkart/*`: [SuperTuxKart assets SVN repository](http://SuperTuxKart%20assets%20SVN%20repository)
- `data/lakitu/*.png`: press-select.fr mariofusion.free.fr deviantart.net
- `data/robots/jumping_sumo_brown.jpg`: amain.com
- `data/robots/random_robot.png`: openclipart.org
- `data/robots/stage_black_bg.png`: playerstage.org

- data/robots/white_mip_black_bg.png: wowwee.com
- data/robots/white_sumo_black_bg.png: parrot.com
- data/warnings/joypad.png: myiconfinder.com

Sounds

- battle-mode.mp3, begin-race.mp3, last-lap.mp3, you-win.mp3: khinsider.com
- boost.wav, boosteat.wav, cpuspin.wav, cputhrow.wav, gotitem.wav, itemreel.wav, racestart.wav, spinout.wav: superluigibros.com
- lightning.wav: youtube.com
- mk64_countdown.wav: themushroomkingdom.net
- quartz.wav: freesound.org
- starman.wav: superluigibros.com
- timebomb.wav: soundbible.com

Tracks

- config/bitmaps/Mariocircuit1.* mariokart.wikia.com