## rosmariokart

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



# **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 linar [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 linar [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
- data/items/BooCurse.png: no cookie.net
- data/items/jumping\_sumo\_brown.jpg:amain.com
- data/items/joypad.png: myiconfinder.com
- data/items/TimeBomb.png: isthisabomb.com
- data/items/RocketStartCurse.png: <a href="mailto:isthisabomb.com">isthisabomb.com</a>
- data/items/TimeBombCurse.png: mariowiki.com
- data/lakitu/\*.png: press-select.fr mariofusion.free.fr deviantart.net
- 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

### Sounds

- starman.wav: <u>superluigibros.com</u>
- boost.wav, boosteal.wav, cpuspin.wav, cputhrow.wav, gotitem.wav, itemreel.wav, racestart.wav, spinout.wav: <a href="mailto:superluigibros.com">superluigibros.com</a>
- mk64 countdown.wav: themushroomkingdom.net
- lightning.wav: youtube.com
- quartz.wav: freesound.org
- timebomb.wav: soundbible.com

### **Tracks**

• config/bitmaps/Mariocircuit1.\* mariokart.wikia.com

m8rkq88vl@mailinator.com