FIRST ROBOTICS PROJECT

ROBOTICS

POLITECNICO
MILANO 1863

THE CAR


B 23
Regione Lombardia
fesr
teinvein
POLITECNICO MILANO 1863

THE PROJECT

-Compute two different odometry:

  -using Differential Drive Kinematics

  -using Ackerman model

and publish both as tf and odom topic

-Use dynamic reconfigure to switch between different published odometry

-Use dynamic reconfigure to reset the odometry to (0,0) or to set to a specific starting point (x,y)

-Publish a custom message with odometry value and type of source

THE DATA

Bag file with:

- left wheel speed
- right wheel speed
- steering angle
- other data not useful today

Custom message prototype

Car data:

rear wheels baseline: 130 cm

distance from front to rear wheels: 176.5 cm

steering factor: 18

THE FILES

https://goo.gl/GonArW

Project folder

Deadlines and requested files

-Send **only** a tar.gz file (put the .txt file with info inside the archive)

-Send via e-mail both to Simone Mentasti and Matteo Matteucci

-name the e-mail “FIRST ROBOTICS PROJECT 2019”

-Inside the archive:

    -txt file (details next slide)

    -folders of the nodes you created (with inside CmakeLists.txt, package.xml, etc...)

Deadlines and requested files

File txt must contain (at least):

-ID, name, surname of all team members

-small description of the files inside the archive

-name of the parameter to change odometry source/set/reset position

-structure of the tf tree

-structure of the custom message

-description of how to start/use the nodes

-info you think are important/interesting

Some more requests

Insert in the archive all the file you think are important, i should be able to properly recreate your workflow

Name the archive with your ID

Don’t use absolute path

Deadlines and requested files

Deadline: 29 May (3 weeks)

Questions:

-write to me via mail (simone.mentasti@polimi.it)

- do not write only to Prof. Matteucci