```
controller interface
::Controller< hardware
interface::VelocityJointInterface >
   mecanum drive controller
    ::MecanumDriveController
   name

    publish period

   last_state_publish
   time
   open loop
   - wheelo_jointHandle

    wheel1 jointHandle

   - wheel2_jointHandle

    wheel3 jointHandle

   - command

    command struct

    sub command

   - odom pub
   - tf odom pub

    odometry

   - odom frame
   use_realigned roller
   joints
   - wheels k

    wheels radius

   - wheel_separation_x_- wheel_separation_y_
   - cmd vel timeout
   - base frame id
   - odom frame id
   - enable_odom tf
   - wheel joints size

    last cmd

   - limiter_linX
   - limiter_linY
   - limiter ang
   + MecanumDriveController()
   + init()
   + update()
   + starting()
   + stopping()
   brake()
   cmdVelCallback()
   setWheelParamsFromUrdf()
```

getWheelRadius()setupRtPublishersMsg()