```
nav2 core::Controller
cl nav2z::forward local
_planner::ForwardLocalPlanner
nh

    costmapRos

 name

    goalMarkerPublisher

 k rho
 k alpha
 k betta
 goalReached
 alpha offset
 betta_offset_
 carrot distance
 carrot_angular_distance_
yaw_goal_tolerance
 xy goal tolerance
 max_angular_z_speed_
 max linear x speed
transform tolerance
 currentPoseIndex
- plan
 waiting
 waitingTimeout
 waitingStamp
```

- tf

+ configure()+ activate()+ deactivate()+ cleanup()+ setPlan()

+ ForwardLocalPlanner()+ ~ForwardLocalPlanner()

+ computeVelocityCommands()

+ isGoalReached()+ setSpeedLimit()- updateParameters()- publishGoalMarker()

cleanMarkers()

generateTrajectory()computeNewPositions()