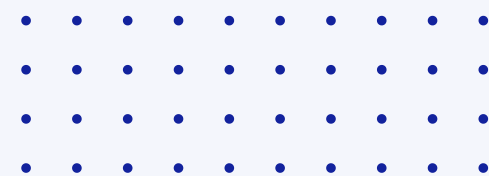




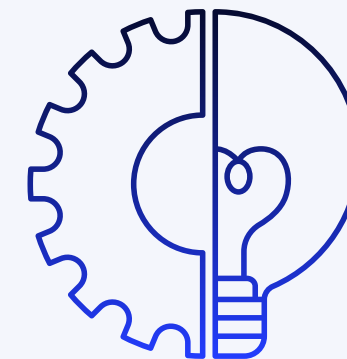
ROS2: Um guia básico

By Leticia Fontanelli e Vinicius Tikara





O que veremos



Criar nodos



Como fazer o robô andar

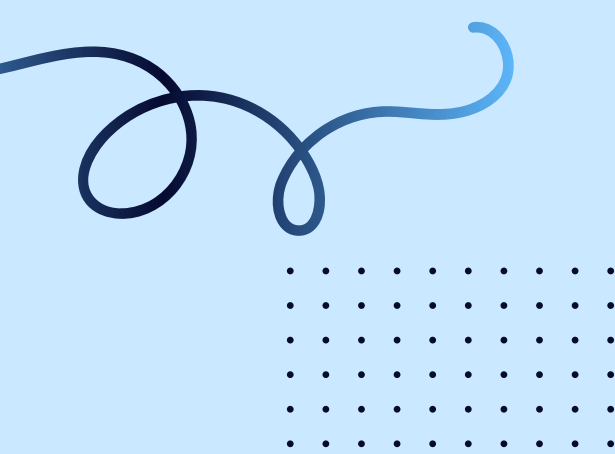


Assinar tópico LaserScan

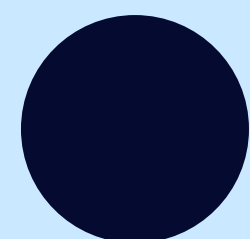
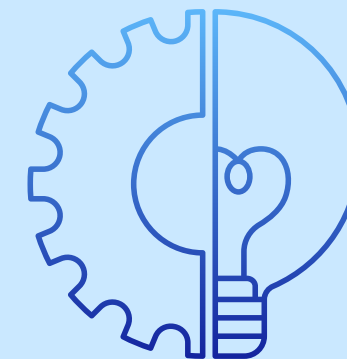


Como criar assinantes e publishers



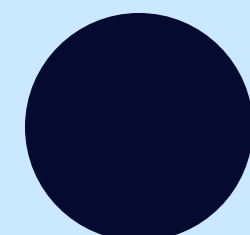


Criando nodos, assinantes e publicadores



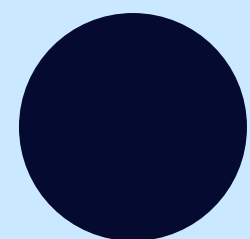
Criar um nodo:

```
rclpy.init(args=args)
node = rclpy.create_node('robot_cleaner')
```



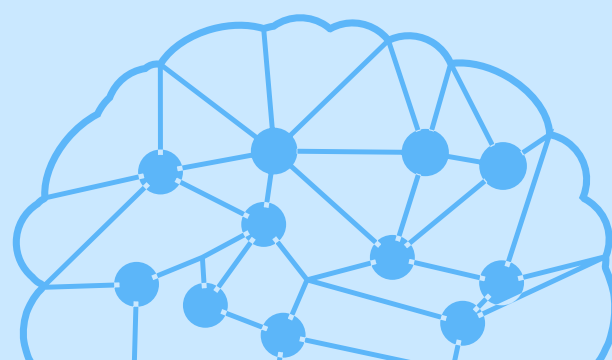
Assinar um tópico:

```
subscription = node.create_subscription(String, 'topic', listener_callback, 10)
```



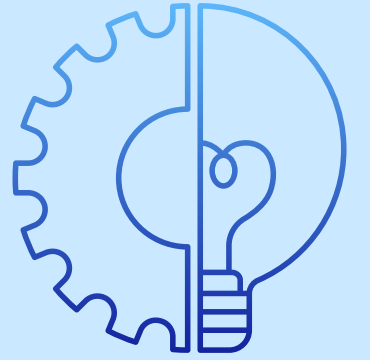
Publicador:

```
publisher = node.create_publisher(String, 'topic', 10)
```

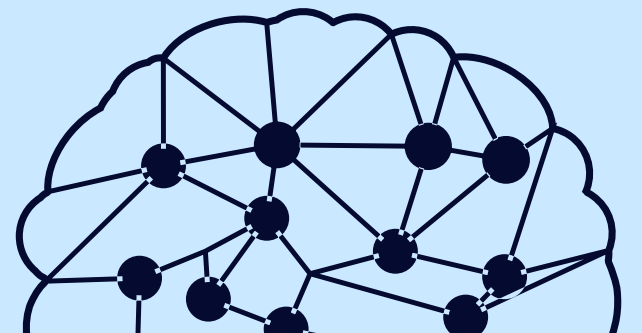




Assinar tópico LaserScan

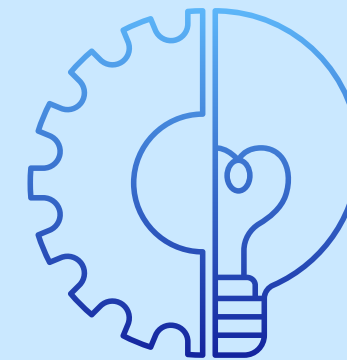


```
scan_subscription = node.create_subscription(  
    LaserScan,  
    'scan',  
    listener_callback,  
    rclpy.qos.qos_profile_sensor_data)
```



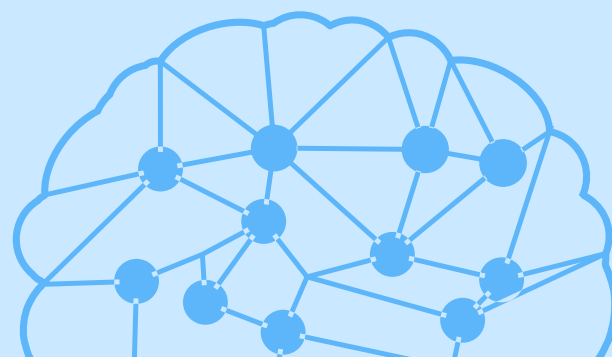


Navegação do robô



```
node.velocity_publisher = node.create_publisher(Twist, 'cmd_vel', 10)
move_cmd = Twist()
move_cmd.linear.x = 0.1
move_cmd.linear.y = 0.0
move_cmd.angular.z = 0.0

node.velocity_publisher.publish(move_cmd)
node.get_logger().info('Andando para frente com velocidade 0.1')
```



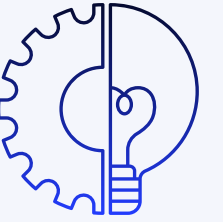


Links úteis



-  <https://docs.ros.org/en/foxy/index.html>
 -  <https://www.theconstructsim.com/turtlebot3/>
 -  <https://classic.gazebosim.org/tutorials>
 -  <https://github.com/VRI-UFPR/robotica-trabalho-final-2021-2>
- 





Obrigada!

