

src/robot_lidar/robot_lidar/lidar.py

```
1 import rclpy
2 from rclpy.node import Node
3 from numpy import linspace, degrees
4 from math import sin
5 from sensor_msgs.msg import LaserScan
6
7
8 class LidarSubscriber(Node):
9
10     def __init__(self):
11         super().__init__("lidar_subscriber")
12         self.subscription = self.create_subscription(
13             LaserScan, "/scan", self.listener_callback, 10
14         )
15         self.subscription # prevent unused variable warning
16
17     def listener_callback(self, msg):
18         angles = linspace(msg.angle_min, msg.angle_max, len(msg.ranges))
19         for r, theta in zip(msg.ranges, angles):
20             self.get_logger().info(
21                 f"Range: {r:.2f} m, Angle: {degrees(theta):.2f} degrees"
22             )
23
24
25 def main(args=None):
26     rclpy.init(args=args)
27
28     minimal_subscriber = LidarSubscriber()
29
30     rclpy.spin(minimal_subscriber)
31
32     minimal_subscriber.destroy_node()
33     rclpy.shutdown()
34
35
36 if __name__ == "__main__":
37     main()
38
```