ELP-801 Assignment

ROS2

February 1, 2024

Problem 1. We have to make a circle using our Turtlebot3. Given $\omega_{\min} = 0.1\,\text{rad/sec}$, $\omega_{\max} = 2.82$ rad/sec and $v_{\min} = 0.01\,\text{m/sec}$, $v_{\max} = 0.22\,\text{m/sec}$, What is the radius(in metre) of largest and smallest circle that we can make with our physical bot?

Problem 2. Let's consider the task of creating an infinity sign ∞ which can be created using two circles touching each other. Since we already know how to draw a circle, our focus now shifts to devising a switching logic to apply whenever the TurtleBot reaches the origin. This logic will govern the TurtleBot's movement to form the desired shape.

Problem # of problem in book. Put your answer right in here.

In the future, just copy this notation, or for problems requiring you to prove a claim (most of them), you will want to use this:

Claim # of problem in book. Put what you need to prove in here.

Proof. Proof goes here. Repeat as needed □