

Exercise 1: Distressed Flashing

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Purpose

In this exercise, the main objective is to design a system capable of inducing the vehicle's turn indicator lights to emit the SOS pattern, which corresponds to the Morse code representation of the distress signal "SOS"(dot-dot-dot-dash-dash-dash-dot-dot-dot). To simulate Morse code, the mapping involves associating the dot symbol with the left turn indicator and the dash symbol with the right turn indicator. This system is designed to produce the following flashing sequence: left-left-left-right-right-right-left-left-left, followed by a brief pause, and then repeating the sequence.

Method

We initialized a ROS node to publish the turn light topic `steer_cmd`, and then created a list of turn light command `[2, 2, 2, 0, 0, 0, 2, 2, 2, 1]` to control the flashing of turn light. 2 is left, 0 is right, and 1 is ending command.

Video Link

<https://www.youtube.com/watch?v=gUFArwPKyf8list=PL5IM62rCQfXrOYlQUh9B-AyZ2Xzz-sQe6index=1exercise 1>