CMSC730 - Fall 2022 [Assignment 4]
University of Maryland

Design and 3D print a radar fixture

Abstract

In this assignment, you will build a simple 'radar' using the servo motor, the ultrasonic sensor, and the 3D printed gear you made in Assignment 2.

Description

Make a simple radar with the servo motor and the ultrasonic sensor.

Note that your code **should not** include the servo library.

You can use duct tape/hot glue/rubber band/screws from the sandbox to ensure the ultrasonic sensor is firmly attached to the servo motor.

Delivery

There are two deliverables and one optional submission.

- First, your code. You can put them in a zip file if needed.
- Second, a quick video demo of the working radar with an (unlisted) youtube video link. In the video, please put some obstacles in front of your radar and show the distance reading changes from the serial port. You can use libraries from Arduino.
- Optional: write a GUI with processing that can visualize the radar program. You will get up to 5 bonus point in Assignment 4 for the GUI processing program.

Due Date

Wed Oct 12th, 11:59 PM EST

Last Modified Date: Oct 5th, 2022