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PY371, Project Proposal

RADAR SYSTEM

ABSTRACT OF CONCEPT

In this project, I will utilize an Arduino microcontroller to perform object detection. Essentially, using an ultrasonic sensor as an input module, when ultrasonic sensor receives a signal it will send that signal to the Arduino. The Arduino will send that data to the Processing IDE that will show visual presence of that on object on Radar. Additionally, the ultrasonic sensor will be on the servo motor that allows the ultrasonic sensor to rotate; if an object is range of the ultrasonic sensor, then the objects angle and distance will be attained. The goal of this project is to facilitate an object detection system and to understand radar in depth.

PARTS REQUIRED

- 1 breadboard
- 1 Arduino microcontroller, for controlling the ultrasonic sensor
- Ultrasonic sensor HC-SR04
- Small servo motor (MG996)
- Power supply
- Jumper wire

WEB REFERENCES

Ultrasonic transceiver

https://www.amazon.com/Ultrasonic-LGDehome-Measuring-Distance-Transmitter/dp/B07JJ8BYBB/ref=sr_1_1_sspa?keywords=Ultrasonic+Sensor+HC-SR04&qid=1554118115&s=electronics&sr=1-1-spons&psc=1

Radar

<https://en.wikipedia.org/wiki/Radar>