

## SHORT-RANGE RADAR IMPLEMENTED WITH ULTRASOUND SENSOR AND PSoC5LP

JULIÁN R. CAMARGO L., OSCAR FLÓREZ-CEDIEL & ORLANDO GARCÍA-HURTADO

*Engineering Faculty, Universidad Distrital Francisco José de Caldas, Bogotá, Colombia*

### **ABSTRACT**

*This document presents the design and construction of a short-range radar (up to 4 meters) making use of an ultrasound sensor with which it performs a constant 2D scan of the environment, displayed on a monochromatic graphic LCD of 128x64 pixels, the radar scan is performed in a 180° rotation range making use of a servo motor for this task, a trace of the objects detected by the radar must be plotted on the screen, with typical application in mobile robotics.*

**KEYWORDS:** *Graphic LCD, Mobile Robotic, PSoC5LP, Servomotor, Ultrasound Sensor*

**Received:** Nov 04, 2020; **Accepted:** Nov 24, 2020; **Published:** Dec 30, 2020; **Paper Id.:** IJMPERDDEC202068