

## Description

- Signal generator and sensor soldering kit for a perimeter wire
- Detection wave frequency can be varied with the on-board potentiometer
- Can be interfaced with Arduino (0-5V analog output)
- Perfect for DIY lawnmower robots
- Requires soldering
- Perimeter wire is not included

This is a nice soldering kit to build your own signal generator and sensor for an electrical perimeter wire. The generator board is based on the popular NE555 Timer and the sensor board is based on two LC (tank) amplified circuits. Can be used with DIY Robot Lawnmowers. A processing chain (amplification, filters, comparison) makes it possible to determine the position of the robot within to the wire. Note that the perimeter wire is not included, but it comes with the through-hole components.



## What's Included

• 1 x Generator board PCB



- 1 x Sensor board PCB
- 1 x 3.3 KOhms resistor
- 1 x 12 KOhms resistor
- 1 x 47 Ohms resistor
- 1 x 4.7KOhms potentiometer
- 2 x 100nF capacitor
- 1 x 1000pF capacitor
- 1 x 1uF capacitor
- 1 x 2.1x5.5mm barrel connector
- 3 x 2 positions terminal connector
- 1 x NE555P timer
- 4 x 10 KOhms resistor
- 4 x 1 MOhms resistor
- 2 x 22nF capacitor
- 1 x LM324N op-amp
- 2 x 3 positions right angle pin header
- 2 x 1mH inductance
- 1 x 1meter 20AWG cable (for the inductances)

## **Useful Links**

Blog

<u>RobotShop Perimeter Wire Generator and Sensor Soldering Kit - Complete Guide</u>

Assembly Guide Cards

- <u>RobotShop Perimeter Wire Generator and Sensor Soldering Kit Assembly Card 1</u>
- RobotShop Perimeter Wire Generator and Sensor Soldering Kit Assembly Card 2