
Robot Voice

Robot voice, Pitching and Vibration

This manual will guide you how to assemble,
test and operate this KIT.



Features:

- Microphone input
- Line input
- Four buttons to control system
- Robot voice, Pitching and Vibration
- Potentiometer to vary pitching and robot sound
- Potentiometer to vary vibration
- Two potentiometers to mix input audio with modulated audio
- Variable gain of microphone
- LED indication of input signal
- Output audio amplifier for driving external speaker
- Power supply +9 VDC to +18 VDC
- Board size = 2.2" x 1.57" (56 mm x 40 mm)

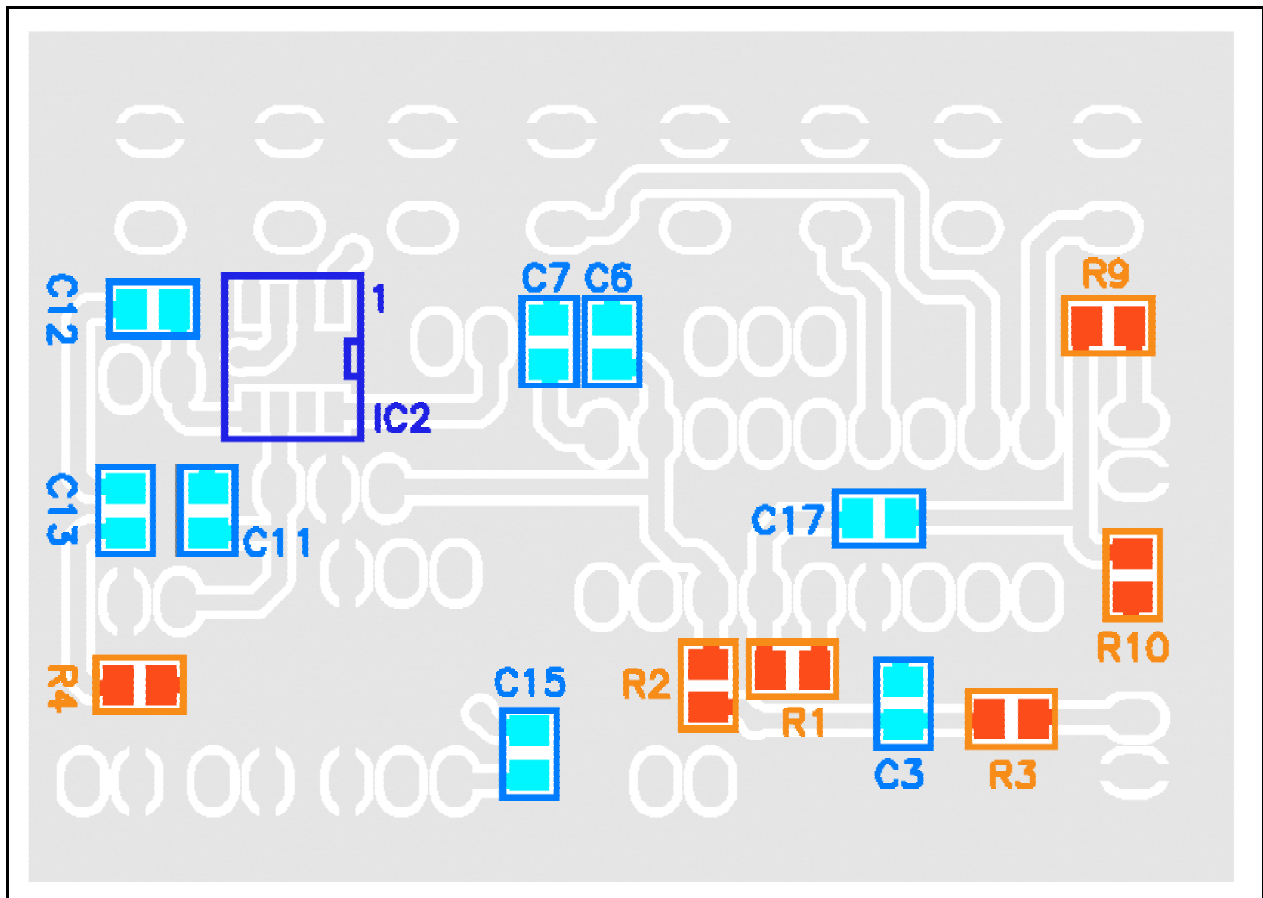
Assembly instructions

The soldering of this unit is pretty basic if you solder the parts in correct order.

Bottom side

Below you will see the assembly of the bottom side.

- smd resistors :R1, R2, R3, R4, R9, R10
- smd capacitors:C3, C6, C7, C11, C12, C13, C15, C17
- Amplifier: IC2 (*make sure you place it in correct direction, pin1 is marked*)

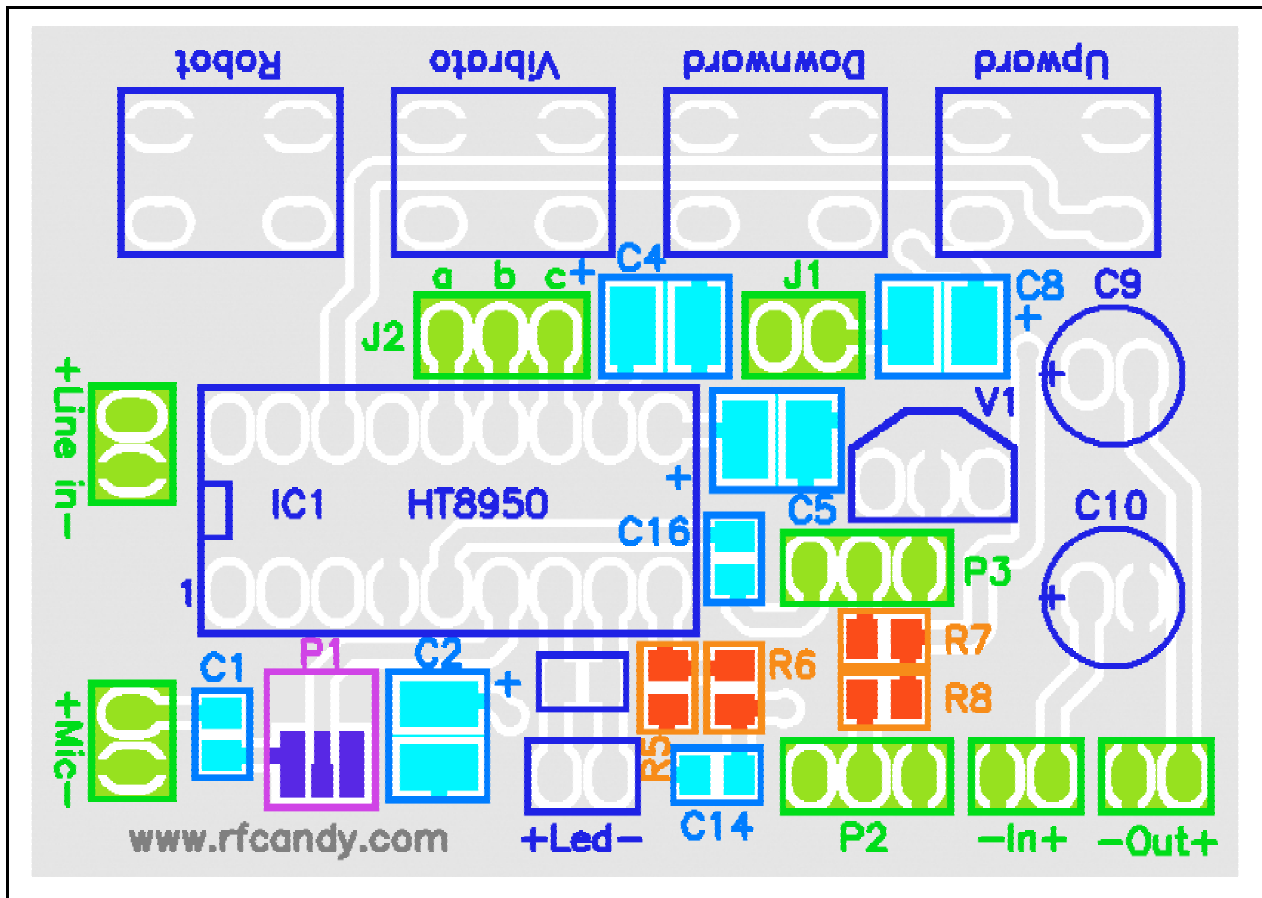


Top side

Below you will see the assembly of the top side.

- smd resistors :R5, R6, R7, R8
- smd capacitors:C1, C2, C4, C5, C8, C9, C10, C14, C16
- Potentiometer: P2
- Regulator: V1

- 2 Pin header: J1, Line in, Mic, In, Out
- 3 Pin header: J2, P2, P3
- 18 pin IC socket: IC1
- LED
- Buttons: Robot, Vibrato, Downward, Upward
- Microphone: *Make sure you connect the mic in the correct direction. Most often the minus tab is connected to the house.*

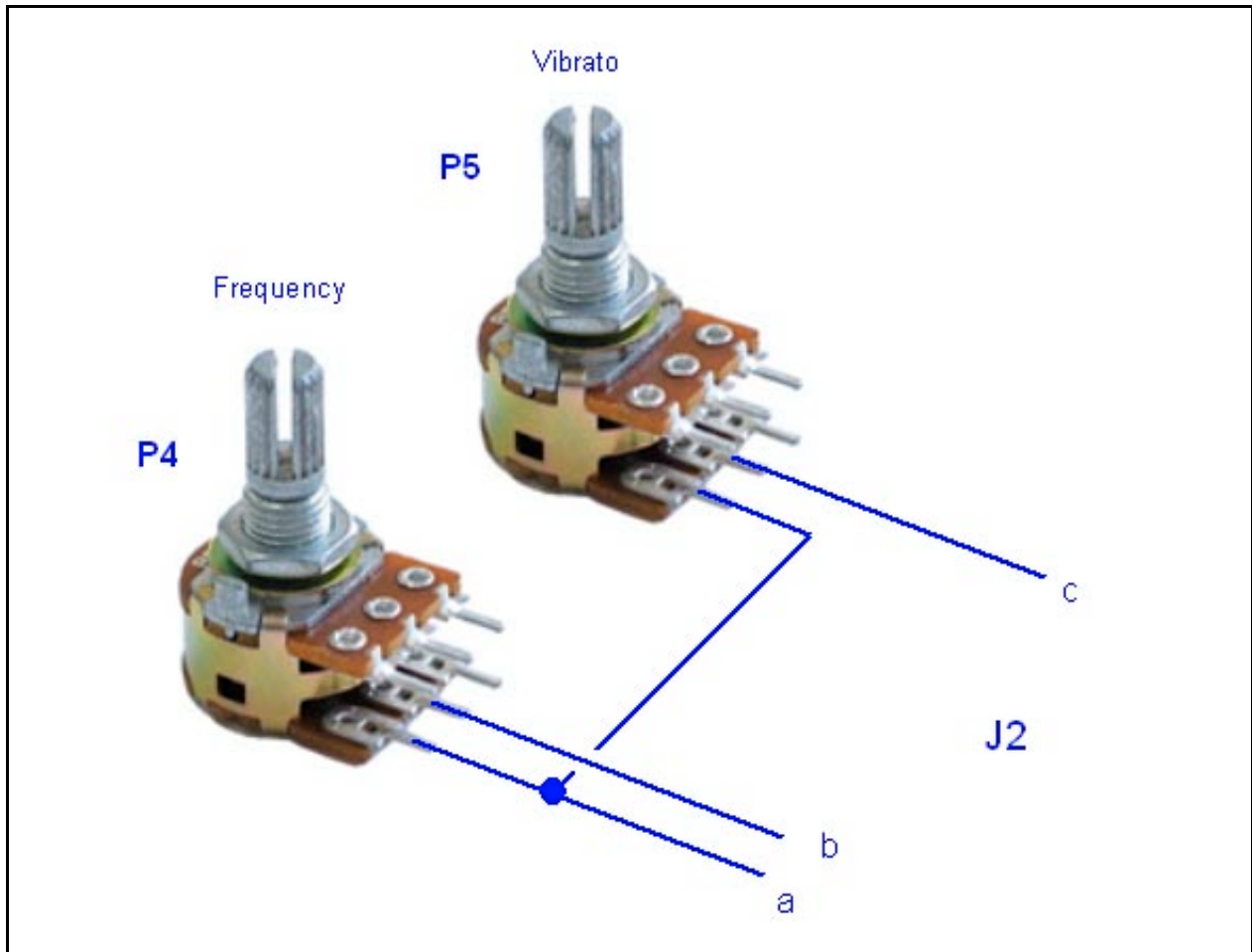


Potentiometer P4 and P5

Below you will see a picture how to connect potentiometer P4 and P5 to the PCB connector J2.

You need 3 wires (a, b, c) from the pots to J2 on the PCB. J2 is labelled a, b, and c on the PCB.

In the picture below i use "Linear Dual Taper Rotary Potentiometers", but as you can of course use single taper equally well.



Trouble Shooting section

If you get a problem with your unit, you might find this section helpful.

Check this!

Make sure the IC1 and IC2 is placed in correct direction.

Make sure you have +3.3V to pin 7 of IC 1.

Make sure you have +1.2V at pin 10 of IC 1

Make sure the soldering of he parts are well done.

Make sure you have connected Pot 4 and 5 correct to J2.

Schematic

