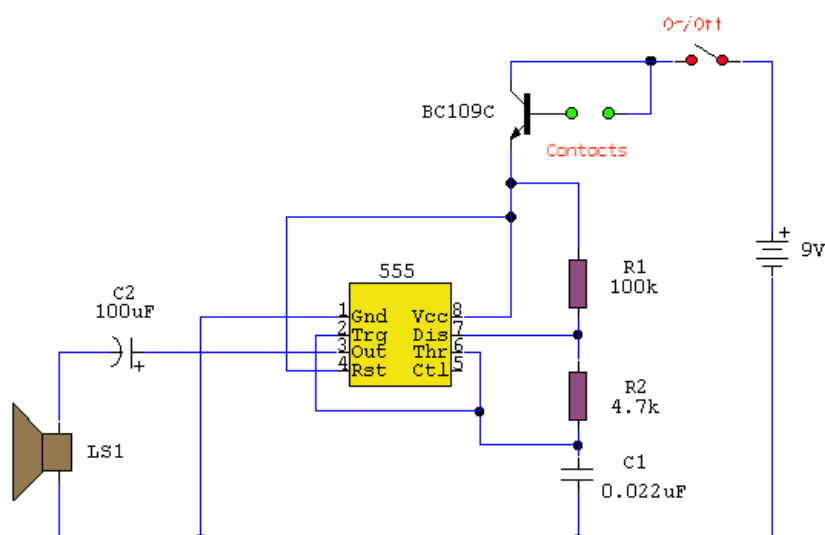


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### Circuit Notes

The circuit uses a 555 timer wired as an astable oscillator and powered by the emitter current of the BC109C. Under dry conditions, the transistor will have no bias current and be fully off. As the probes get wet, a small current flows between base and emitter and the transistor switches on. A larger current flows in the collector circuit enabling the 555 oscillator to sound.

An On/Off switch is provided and remember to use a non-reactive metal for the probe contacts. Gold or silver plated contacts from an old relay may be used, however a cheap alternative is to wire alternate copper strips from a piece of veroboard. These will eventually oxidize over but as very little current is flowing in the base circuit, the higher impedance caused by oxidization is not important. No base resistor is necessary as the transistor is in emitter follower, current limit being the impedance at the emitter (the oscillator circuit).