A reliable tap doorbell can be built using a few cheap components, which usually can be found in the junk-box.

In the circuit described here the touch contact (tap) is connected to the base of T1. When a finger is placed on the TAP, mains hum on the skin will drive T1. This changes the bias on the base of T2, which in-turn drives the darlington T3/T4, switching on the buzzer and the lamp. A small piece of printed circuit board, aluminium foil or something similar can be used for the TAP contact. T1 must be mounted very close to the TAP or the connecting wire will pick up too much hum. In the quiescent state the circuit draws about 4 mA. It will work on any supply voltage from 6 to 12 volt. Of course the buzzer and lamp must be suitable for the supply voltage which will be used.

