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Electronic Stethoscope

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In order to listen to your heartbeat you would normally use a listening tube or stethoscope. This circuit uses a piezo sounder from a musical greetings card or melody generator, as a microphone. This transducer has an output signal in the order of 100 mV and its low frequency response is governed by the input impedance of the amplifier. For this reason we have chosen to use an emitter follower transistor amplifier. This has a high input impedance and ensures that the transducer will have a very low frequency response. At the output you just need to connect a set of low impedance headphones to be able to listen to your heartbeat.

Replacing the emitter follower with a Darlington transistor configuration will further increase the input impedance of the amplifier.

