

Circuit Components in box

J60 Electret microphone x1

An electret microphone is a condenser microphone with a permanently embedded electric charge. The diaphragm of the microphone acts as the second plate of the capacitor (condenser=capacitor, apparently) and creates different voltages depending on its vibrations.

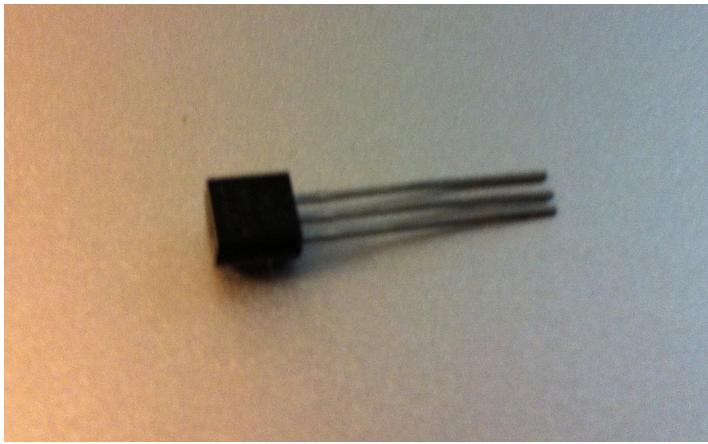
<http://www.adafruit.com/datasheets/CMA-4544PF-W.pdf>



LM34 DZ Temperature sensor x1

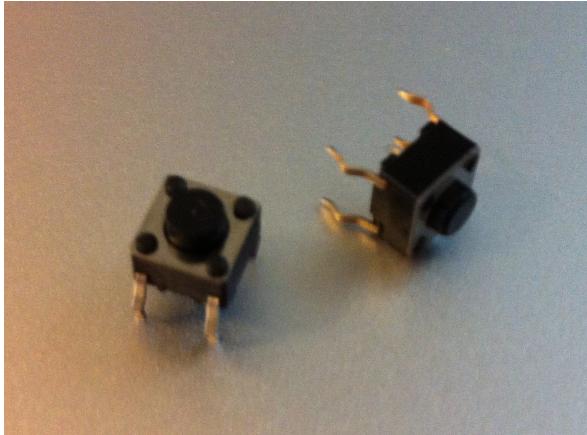
(this one could just be a transistor, but the closest one I could find to the actual design and shape of the component was that of a temperature sensor).

<http://www.mouser.com/ds/2/282/lm34-34572.pdf>



Tactile Switch SPST x5

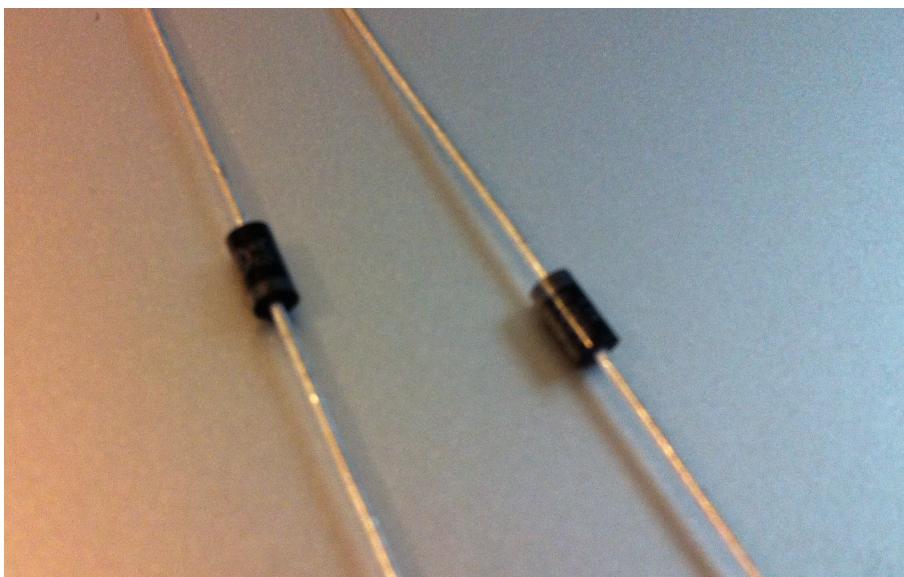
This switch is a Single Pole Single Throw switch that connects to terminals of a circuit. It is either on or off and the user's pressing on the button changes its state.
http://www.mouser.com/ds/2/60/PTS645_13feb14-248111.pdf



Rectifier 400V 1A Standard x1

A rectifier is a component that changes an AC current to a DC one.

<http://www.mouser.com/ds/2/308/1N4001-D-110363.pdf>



Photoresistor

x2

A photoresistor is a light dependent resistor whose resistance decreases with an increase in incident light that hits the resistor.

<http://yourduino.com/docs/Photoresistor-5516-datasheet.pdf>



Piezoelectric speaker

x1

<http://www.mouser.com/ds/2/252/PT-1540PQ-10357.pdf>

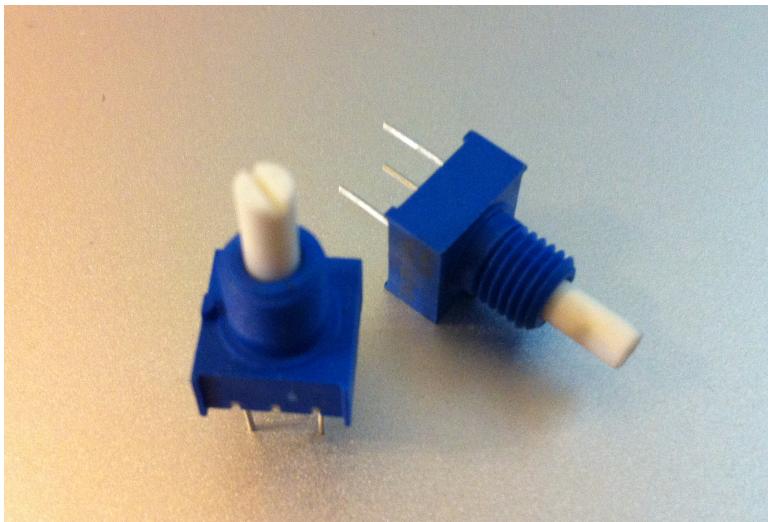
(note, I couldn't find the exact one, so I just chose one, assuming that they would be similar)



Bourns 3310Y-103L Potentiometer x3

A potentiometer is a three-terminal resistor used as an adjustable voltage divider (a linear circuit that allows the user to access a fraction of the initial voltage). This one seems to be used specifically for volume control, given the other components (the electret mic and the piezoelectric speaker).

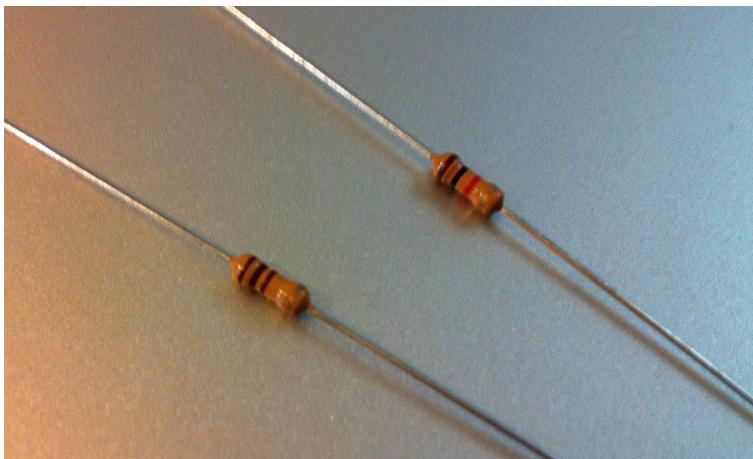
<http://datasheet.octopart.com/3310Y-001-503L-Bourns-datasheet-12107324.pdf>



Resistors

Resistors are circuit components that resist the current, lowering current flow and lowering voltage differences in the circuit.

- $110\ \Omega$ +/- 5% x11
(Brown-Brown-Brown-Gold bands)
- $1\ k\Omega$ +/- 5% x9
(Brown-Black-Red-Gold bands)

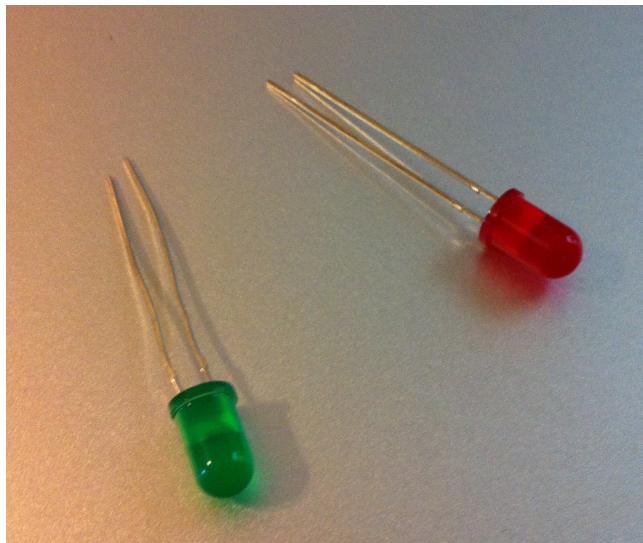


Light Emitting Diode (LED)

Red x1

Green x1

LED lights are diodes that emit light when a current passes through them.



mbed NXP LPC1768 x1

<http://mbed.org/platforms/mbed-LPC1768/>

