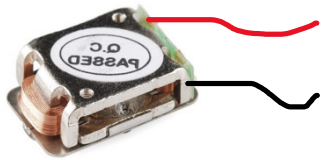
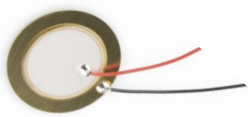
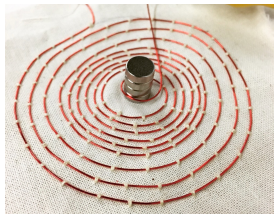
# ISD1820 Recording Module







**speaker +**

**-**

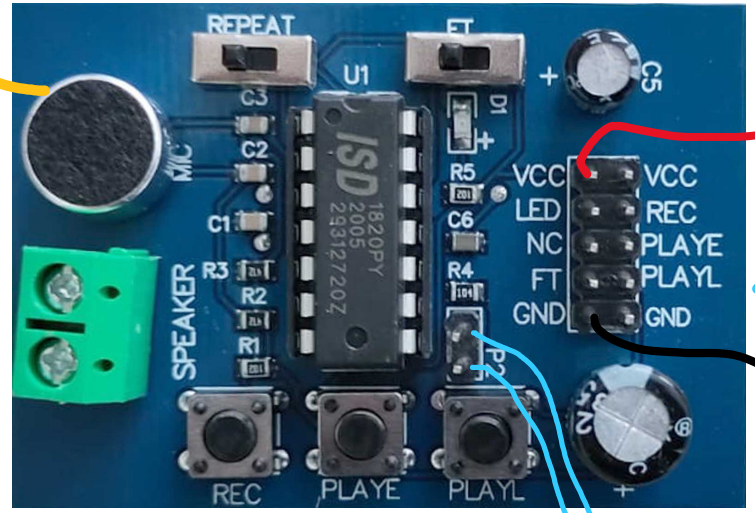
8 Ω speaker OR
piezo transducer OR
bone conductor OR
jack to speaker OR
DIY speaker coil

**microphone**
get close!

**repeat**

**feedthru**
mic input directly
to speaker

**3.3-5V**

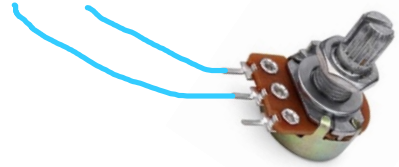


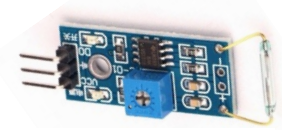

**pins to external switches**
any DIY on/off switch works
rec ↔ vcc = record
playE ↔ vcc = play once
playL ↔ vcc = play while pressed

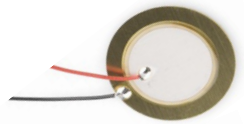
**gnd**

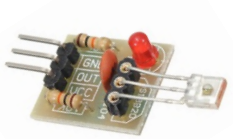
**on-board switches**
rec (record)
playE (play track once)
playL (play while pressed)

**p2 jumper**
10K default = 10 sec record time
500K pot to play w distorted sounds

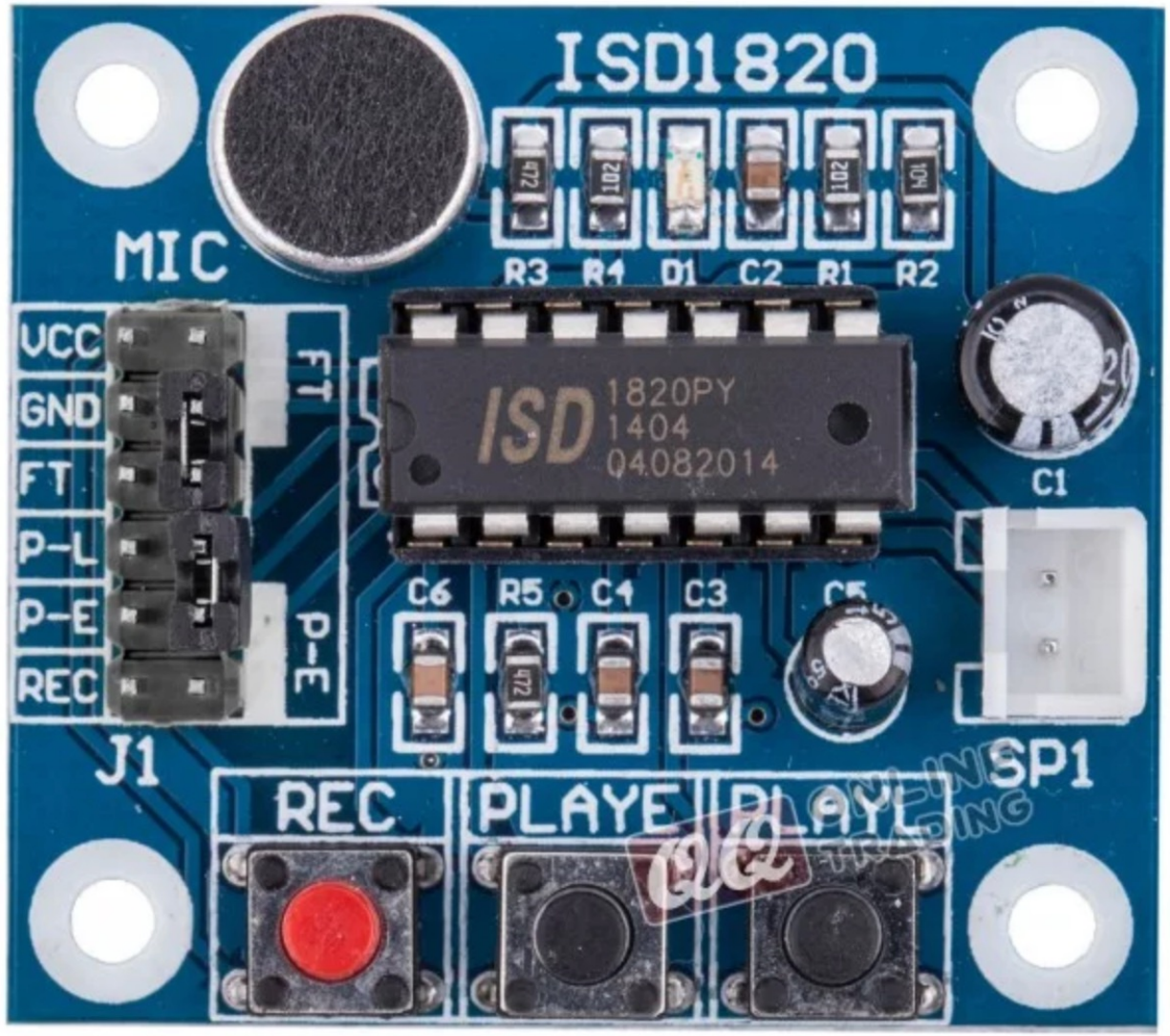








microphone




Power – 3.3-5V

Power – 3.3-5V

feedthru

playback while pressed

playback once

record while pressed

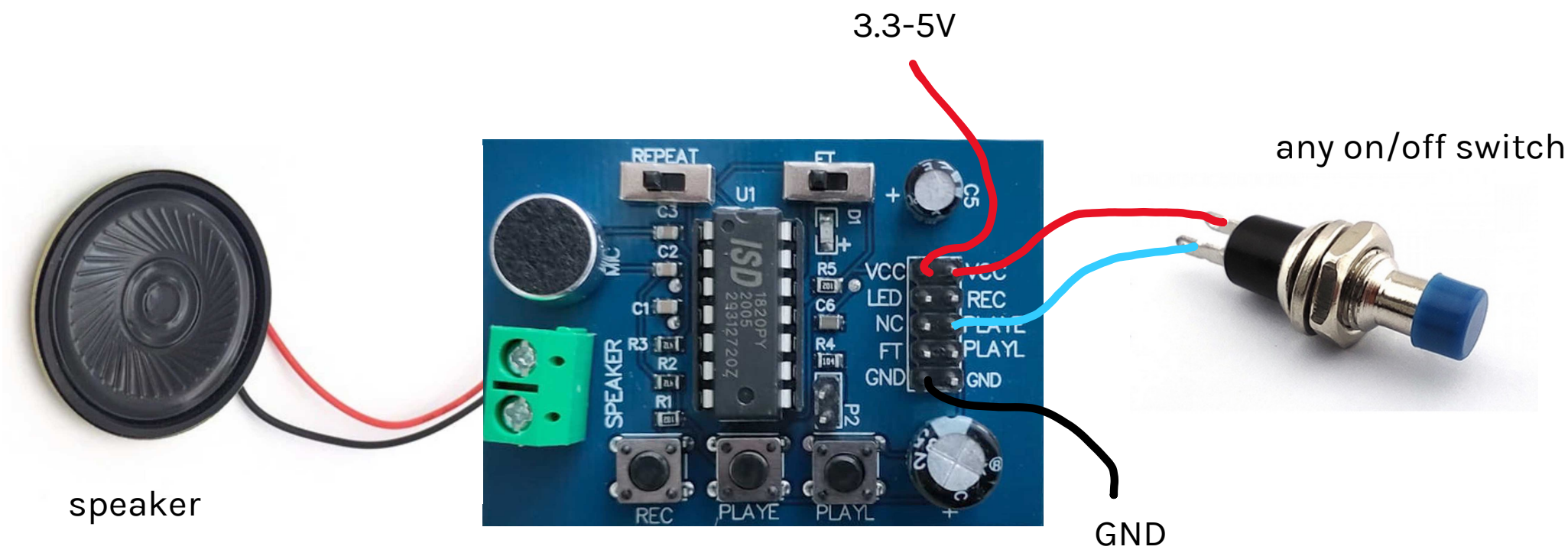
speaker cable

*Connect playback/record pins to any switch or sensor and VCC*

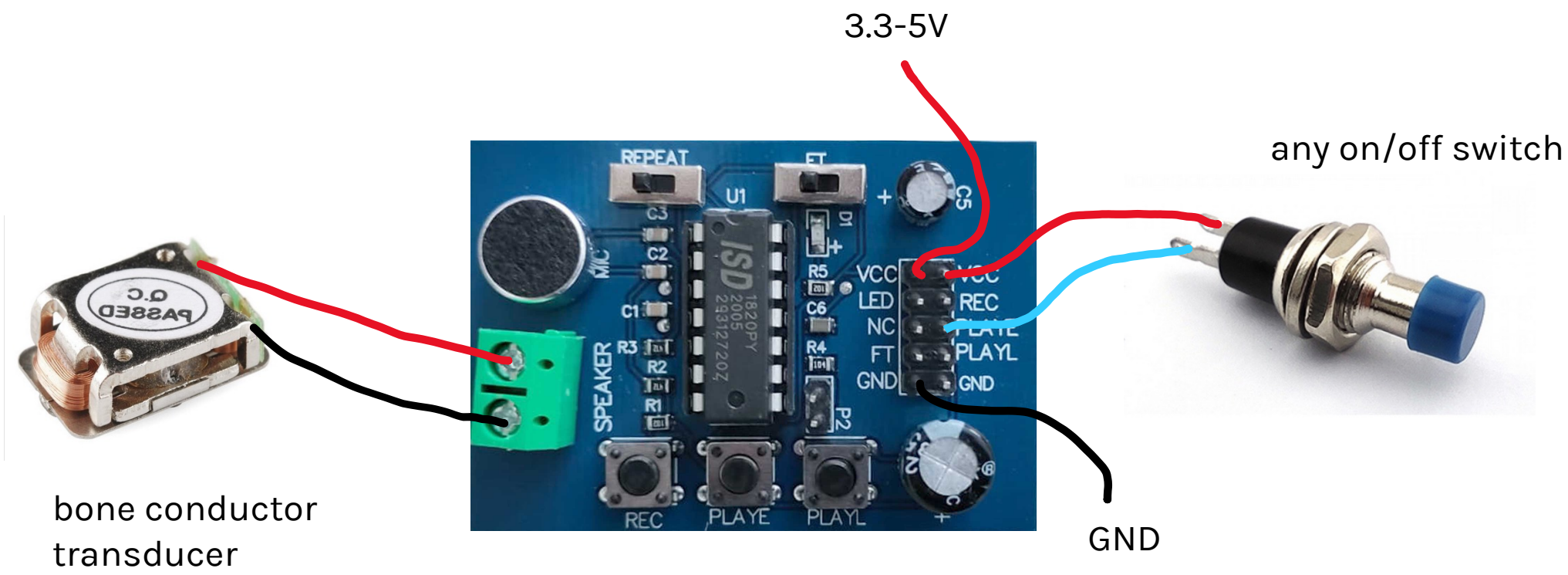
*Tiny jumpers to activate feedthrough or repeat modes*

# Module we have today

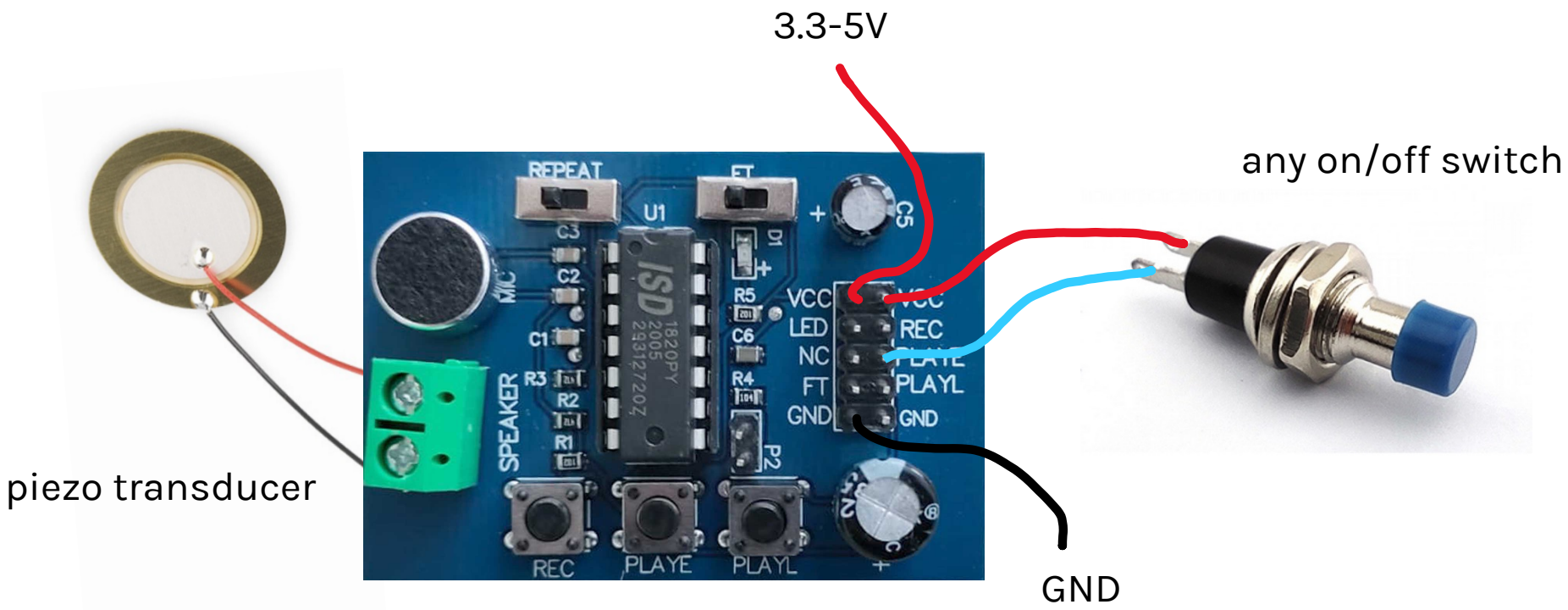
# audio outputs




# ISD1820 + 8 ohm speaker

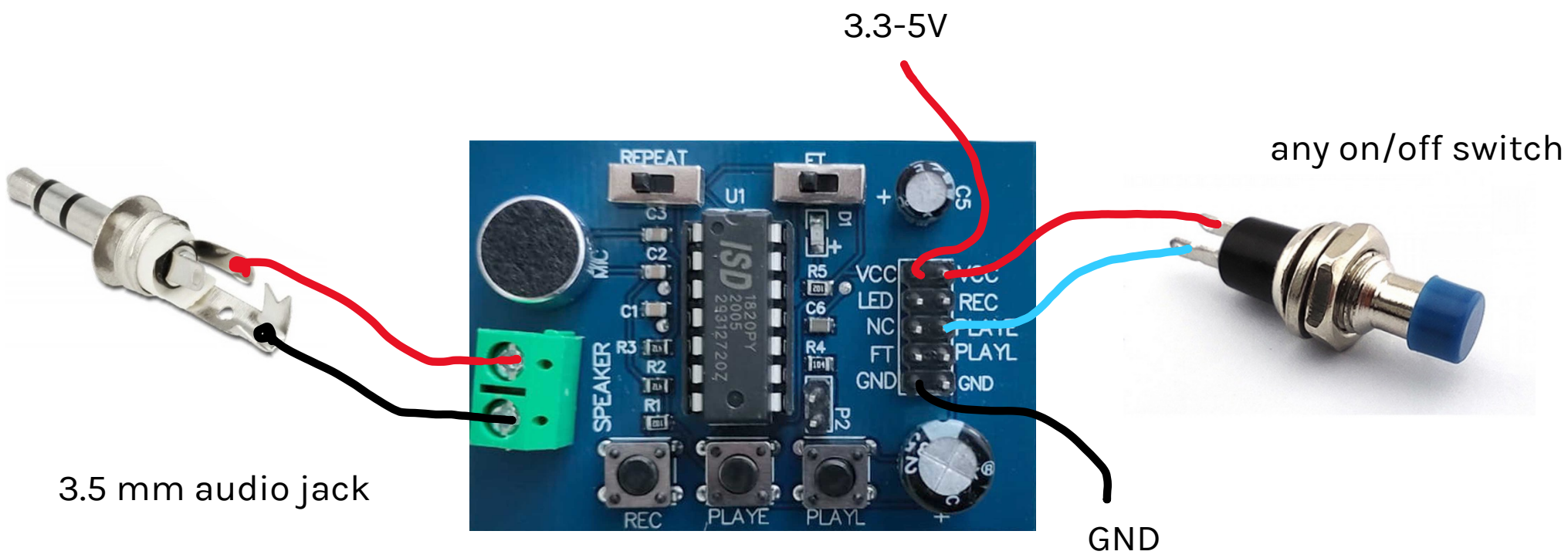



# ISD1820 + bone conductor speaker




# ISD1820 + piezo speaker

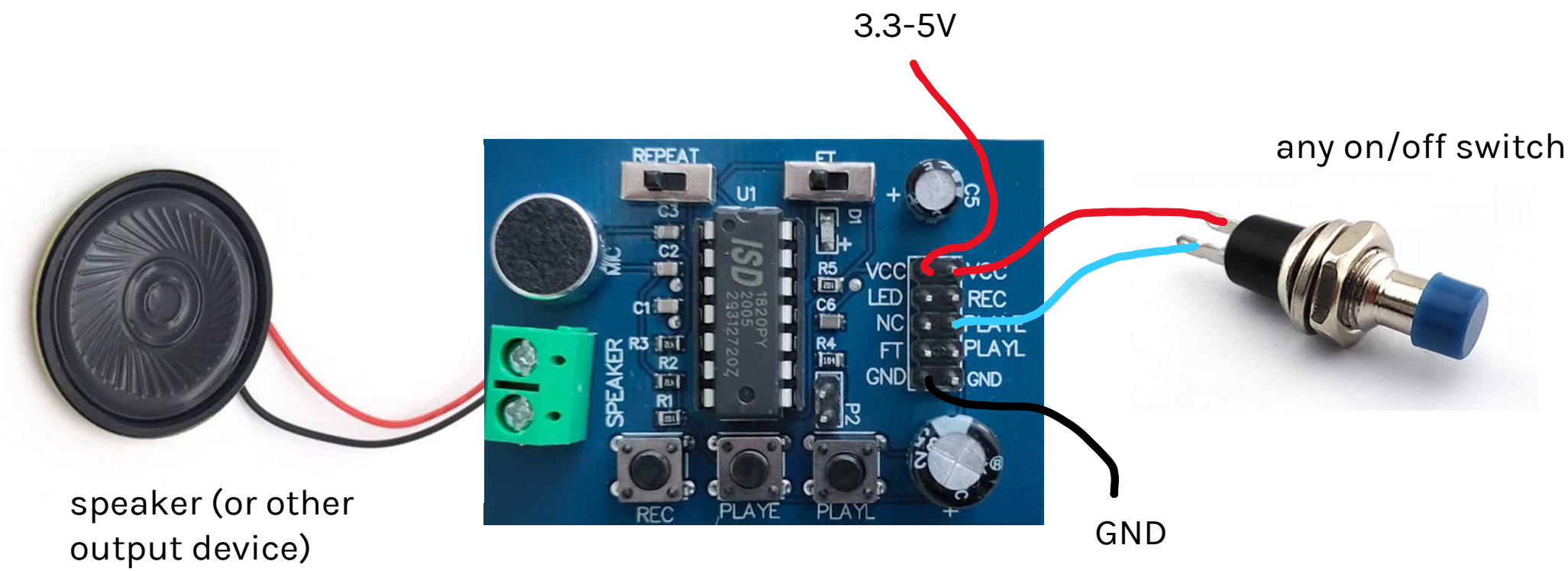
Put between your teeth or on jawbone to hear sound



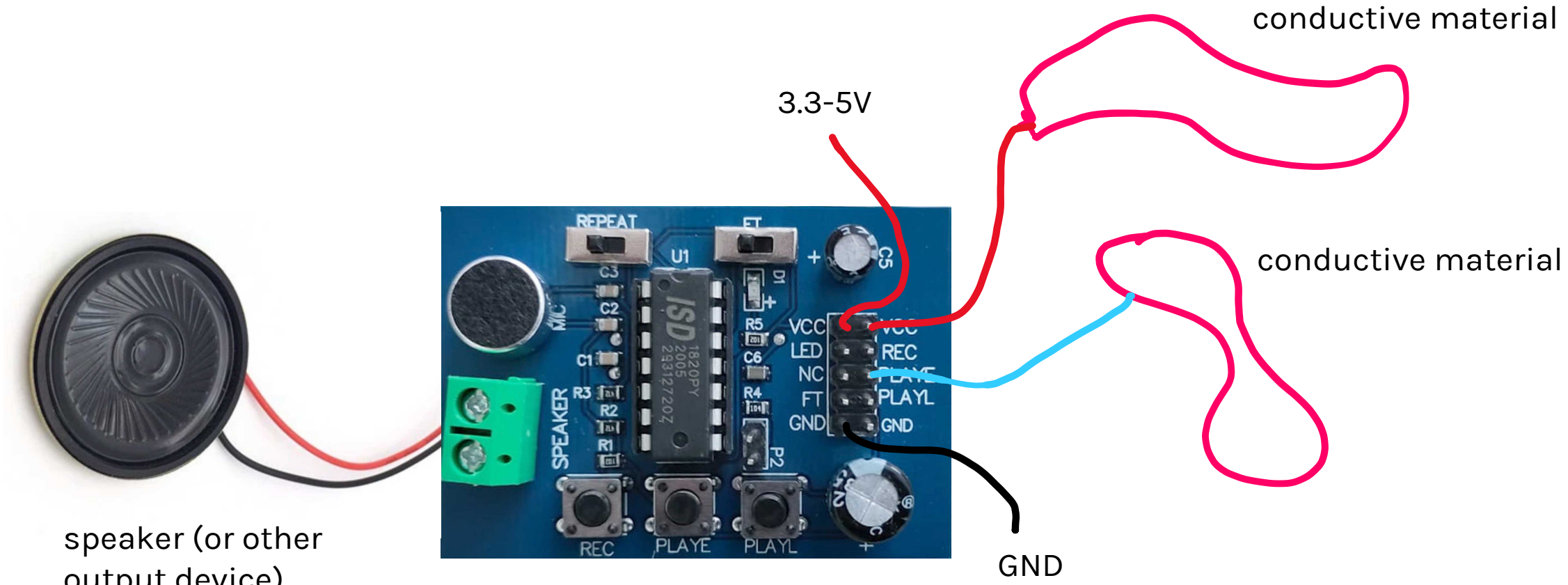

# ISD1820 + 3.5mm jack

Then connect to any battery powered speaker for bigger sound

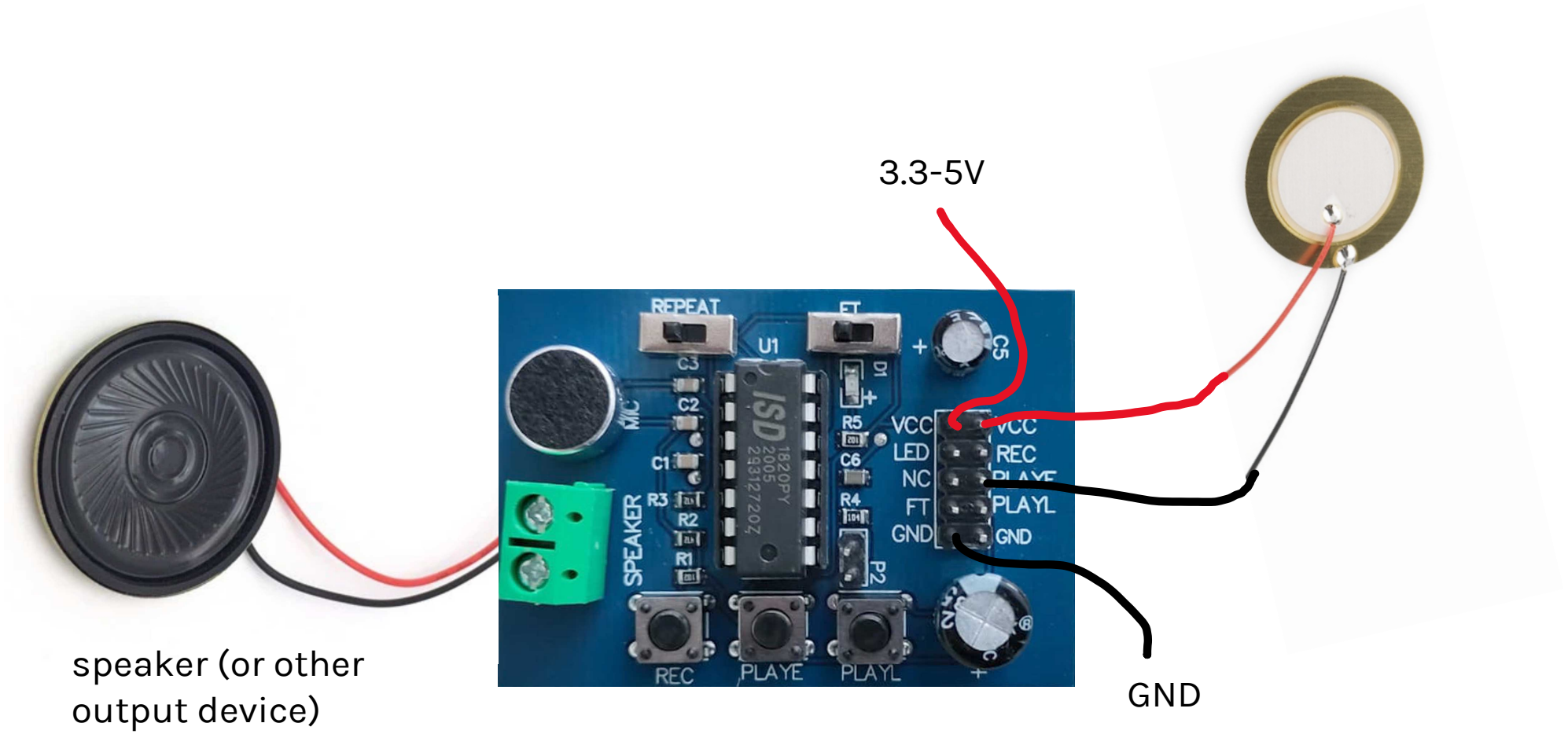
# triggers




# ISD1820 + light sensor

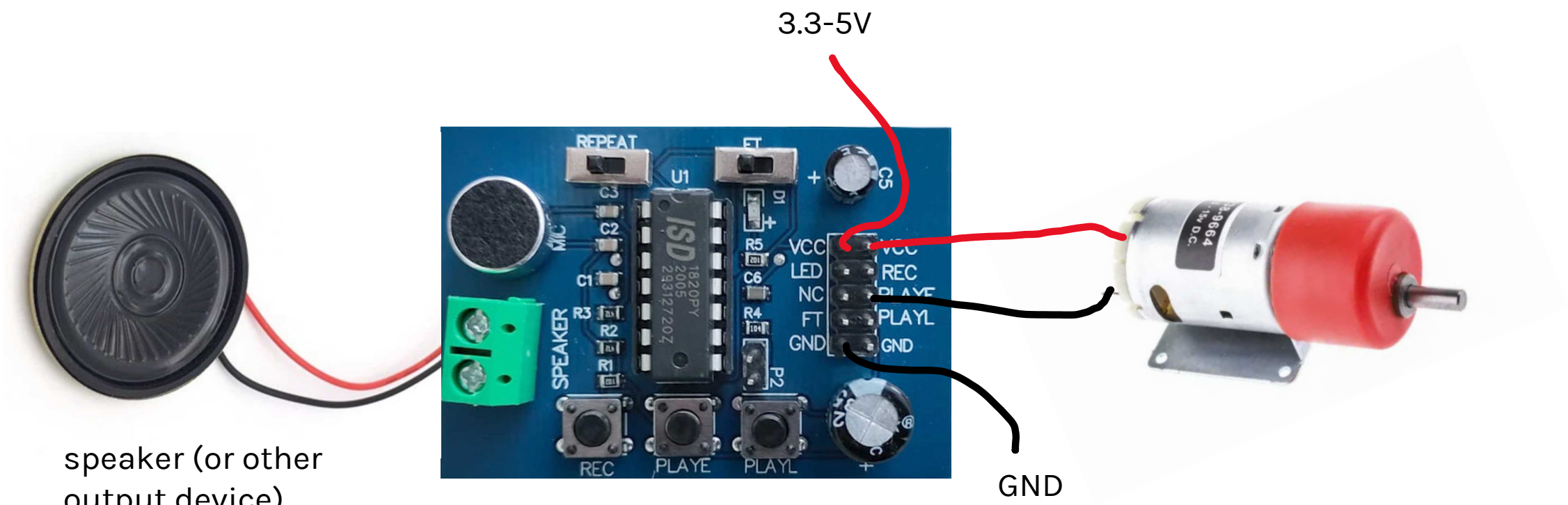



# ISD1820 + light sensor



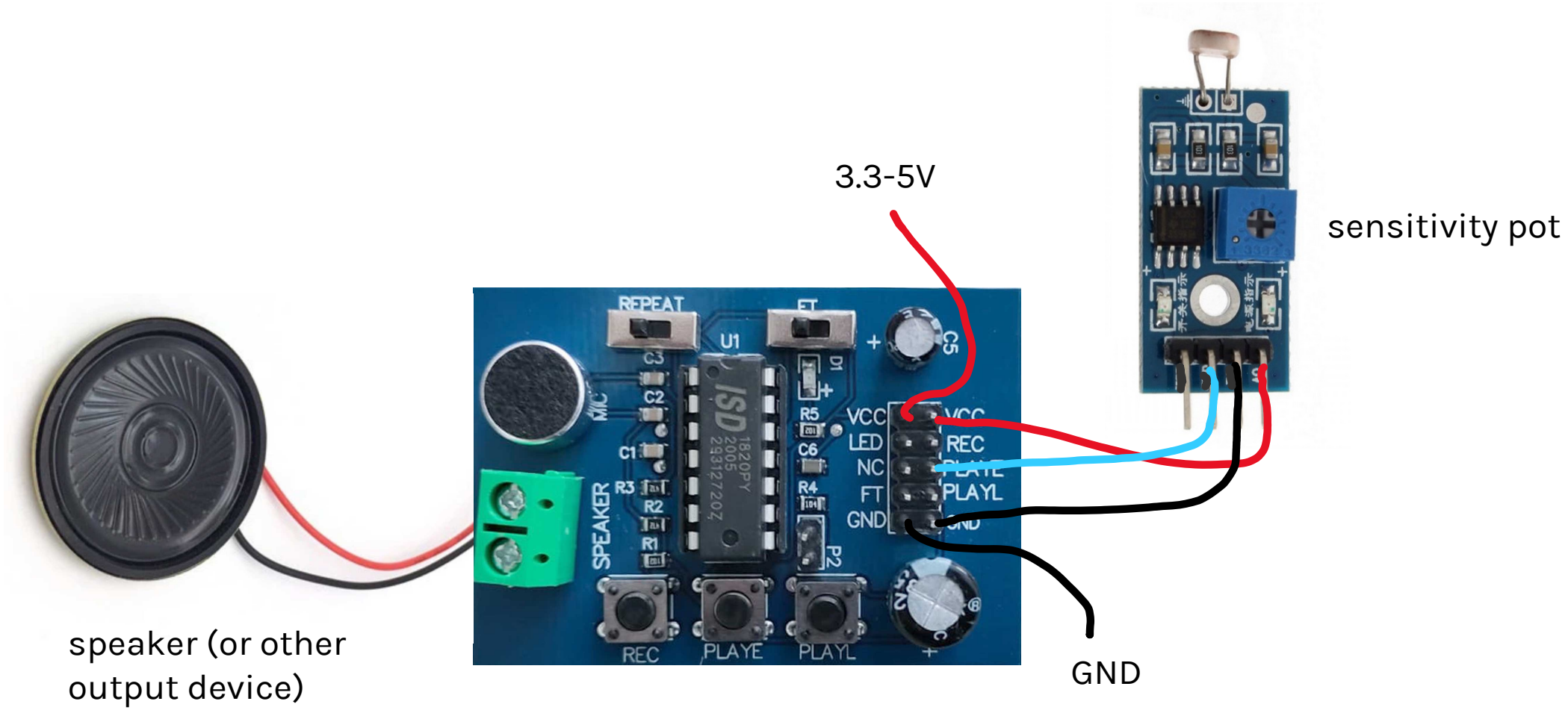

# ISD1820 + Piezo transducer

Press, bend or knock trigger

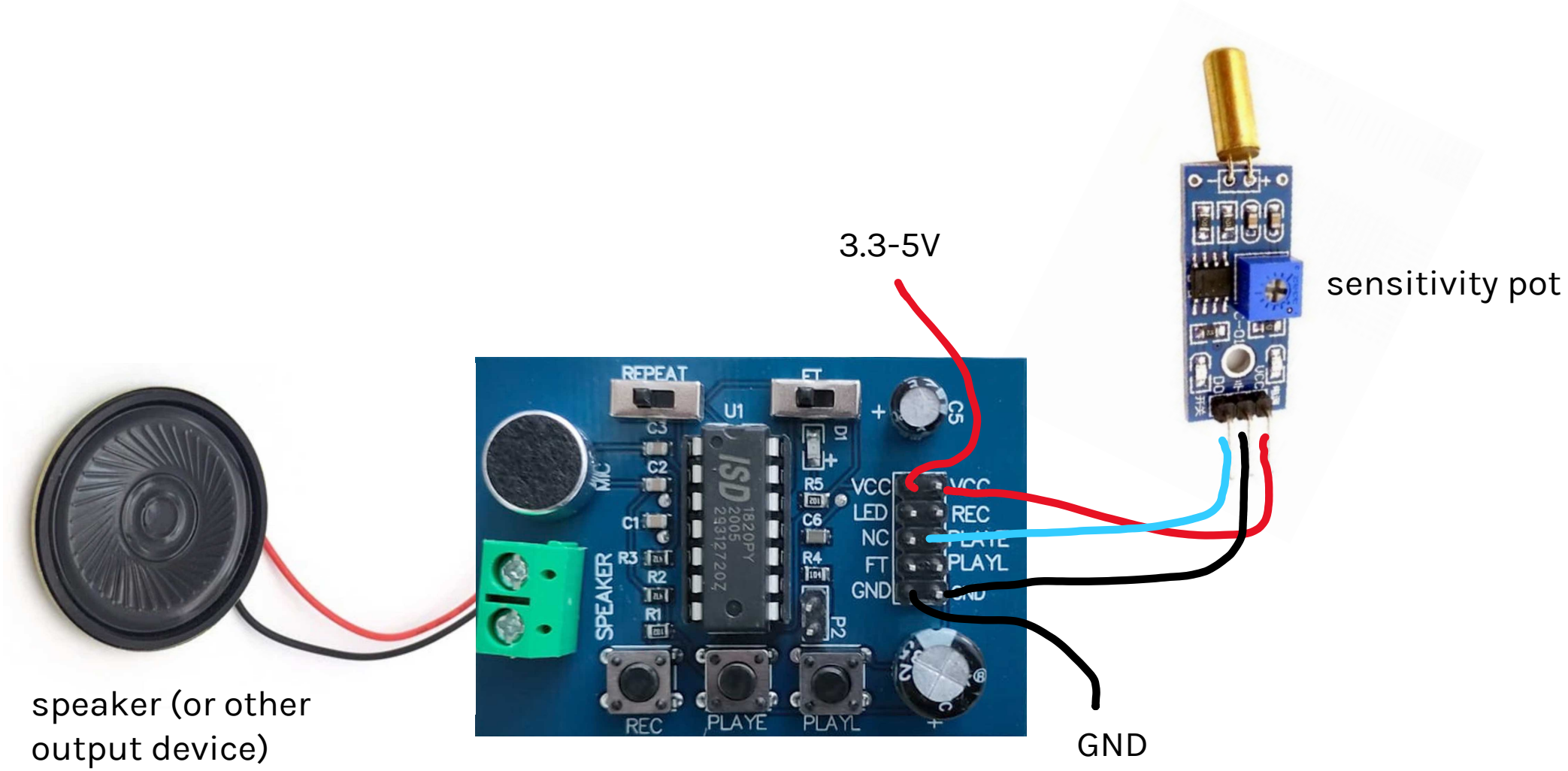



# ISD1820 + DC motor

Type e.g. 4.5-15V with gearbox

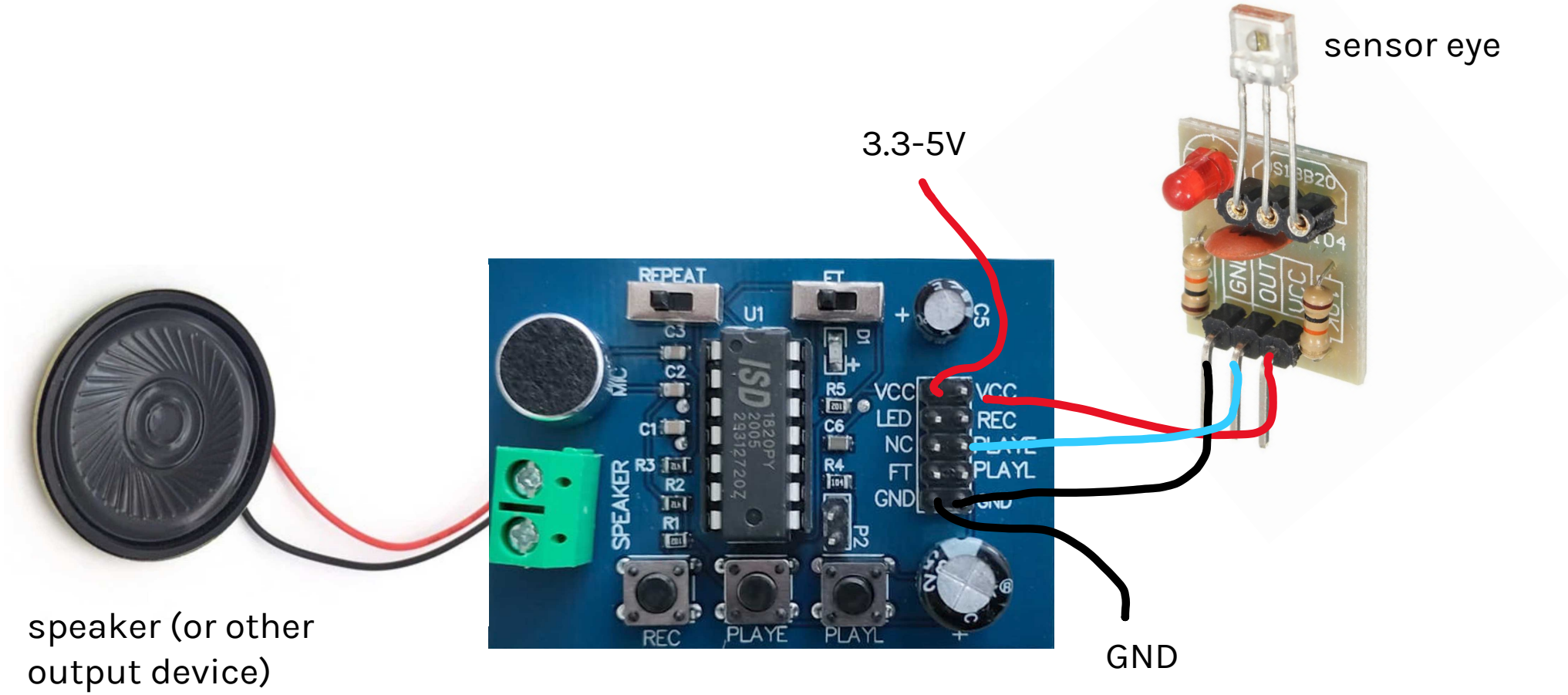



# ISD1820 + light sensor

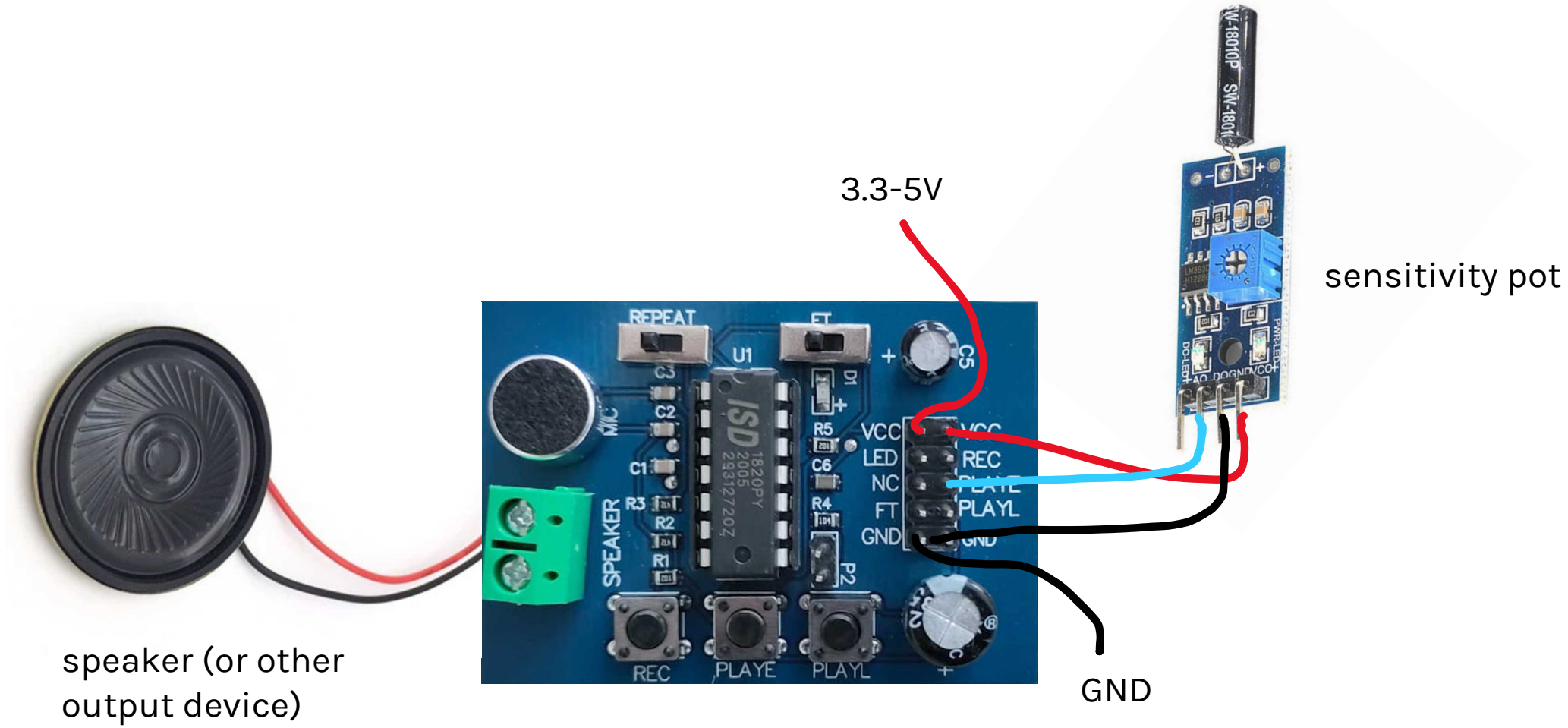



# ISD1820 + tilt switch

also useful as record switch!

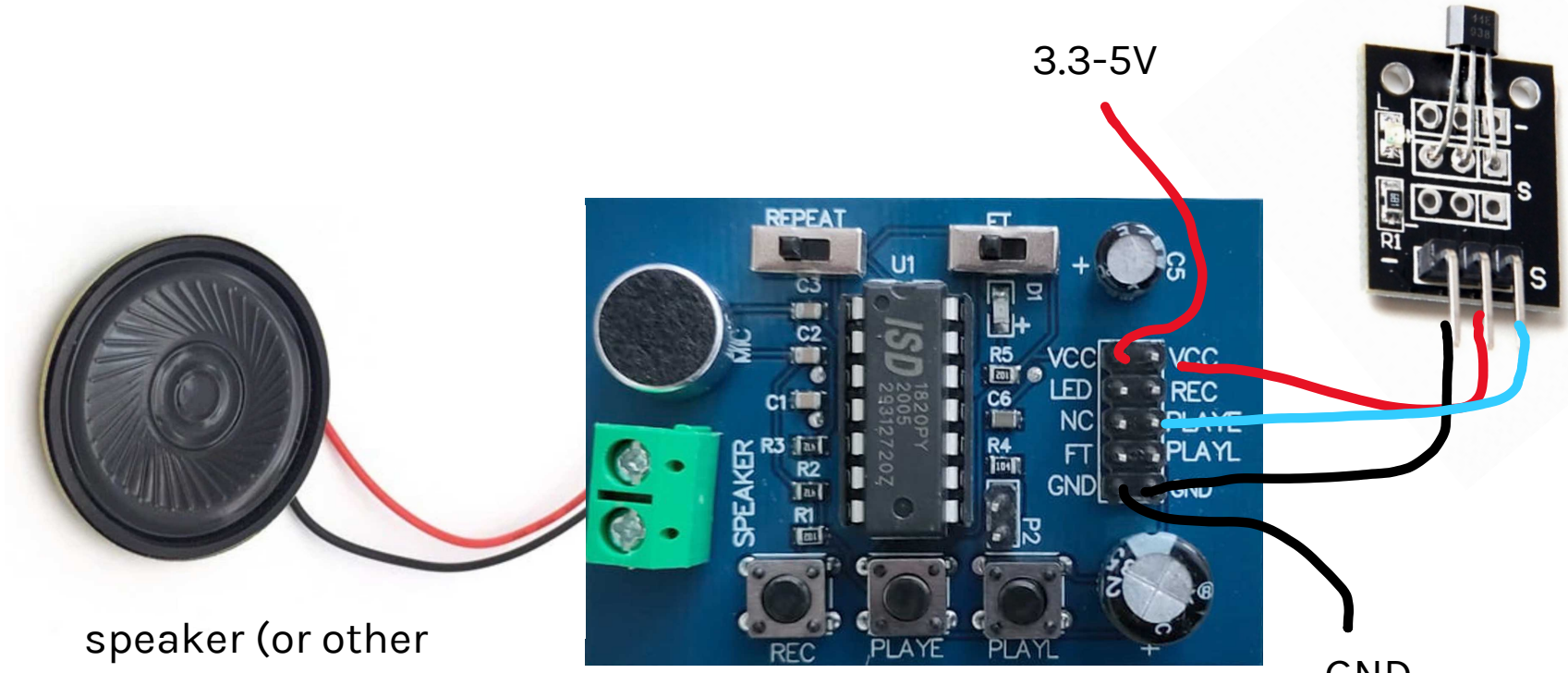



# ISD1820 + red laser sensor

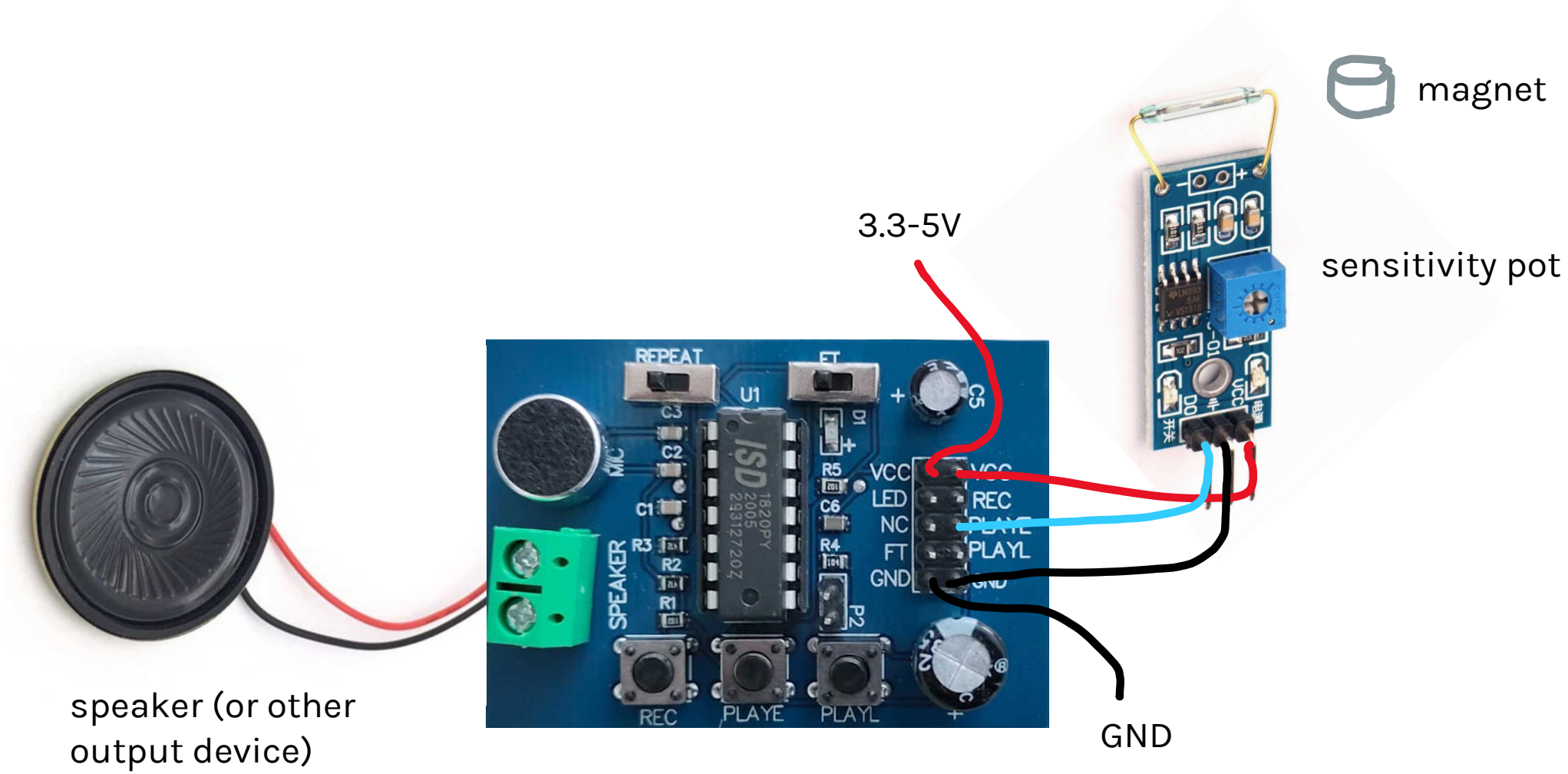



# ISD1820 + vibration sensor

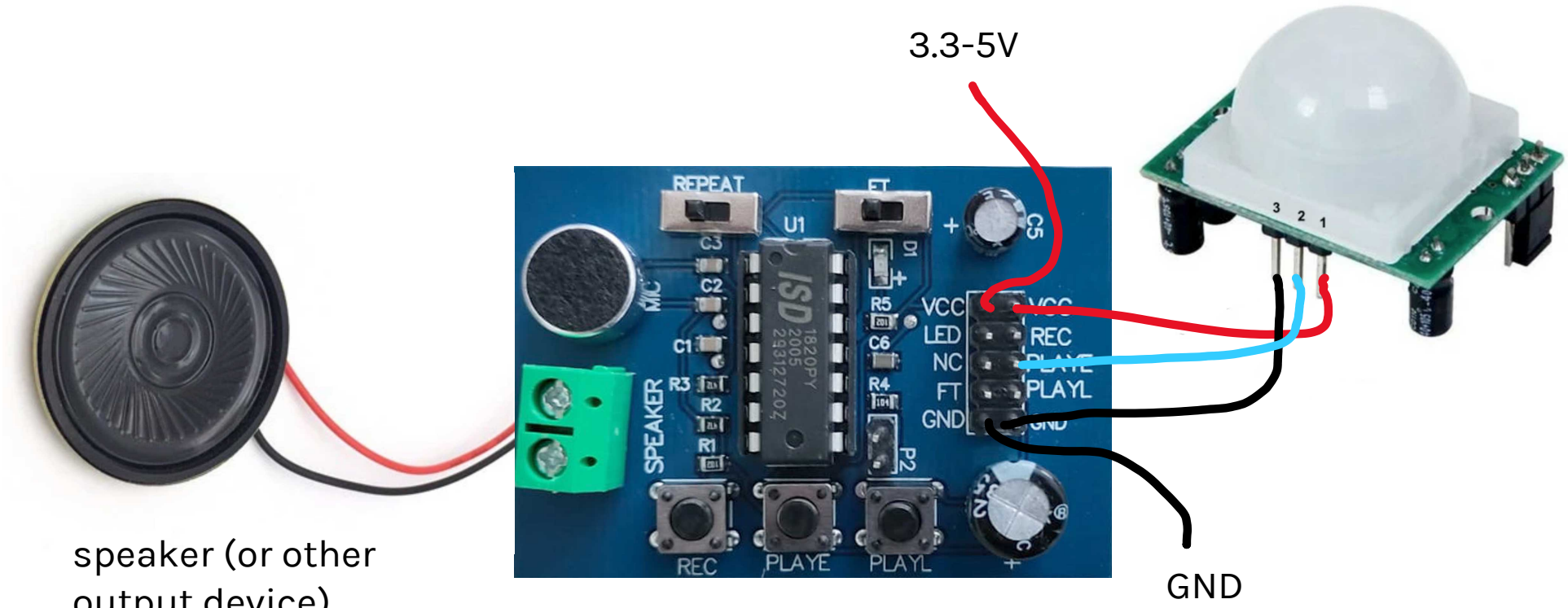
magnet




# ISD1820 + hall effect sensor




# ISD1820 + reed switch




# ISD1820 + motion sensor

Needs min 4.5V (might not be reliable at 3.3V)

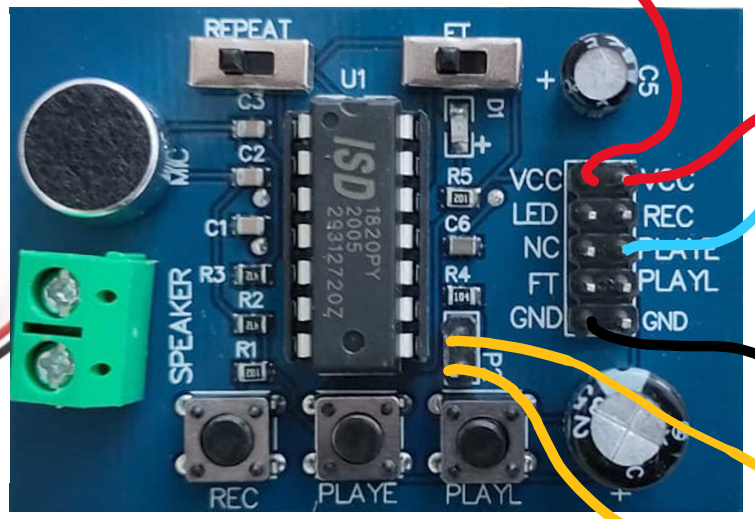
**Tx pot** to adjust delay of trigger

**Sx pot** to adjust sensitivity (distance)

distortion

speaker (or other output device)

3.3-5V




any on/off switch

GND

250K or 500K potentiometer

default when jumper is used

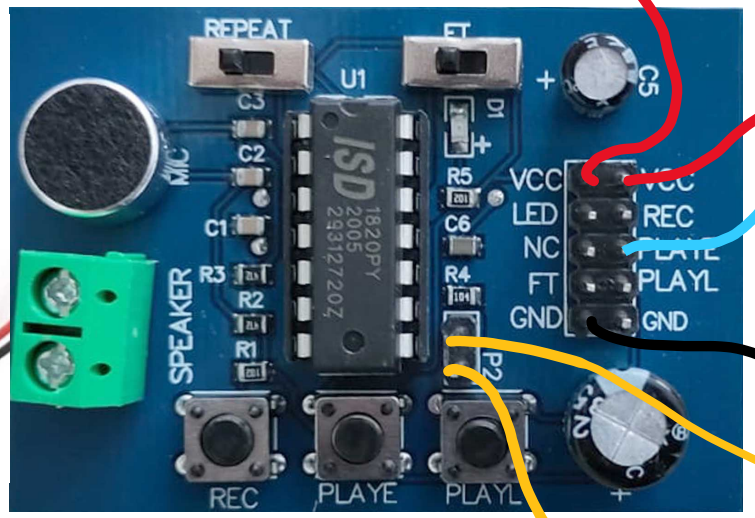
| Ω | Record time | Sample rate | Bandwidth |
|---|---|---|---|
| 80K | 8 secs | 8 KHz | 3.4 KHz |
| **100K** | **10 secs** | **6.4 KHz** | **2.6 KHz** |
| 120K | 12 secs | 5.4 KHz | 2.3 KHz |
| 160K | 16 secs | 4.0 KHz | 1.7 KHz |
| 200K | 20 secs | 3.2KHz | 1.3 KHz |

# ISD1820 + 500k pot

on p2: distorts the sound

speaker (or other output device)

3.3-5V




any on/off switch

GND

default when jumper is used

| Ω | Record time | Sample rate | Bandwidth |
|---|---|---|---|
| 80K | 8 secs | 8 KHz | 3.4 KHz |
| **100K** | **10 secs** | **6.4 KHz** | **2.6 KHz** |
| 120K | 12 secs | 5.4 KHz | 2.3 KHz |
| 160K | 16 secs | 4.0 KHz | 1.7 KHz |
| 200K | 20 secs | 3.2KHz | 1.3 KHz |

0 Ω 50K Ω 100K Ω 200K Ω

# DIY variable resistor

make with conductive paint