ISD1820 Recording Module

microphone
get close!

feedthru
mic input directly
to speaker

repeat

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

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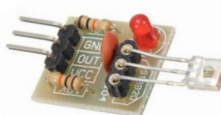jack to speaker OR
DIY speaker coil

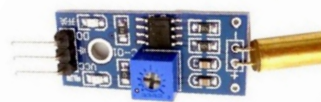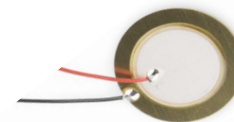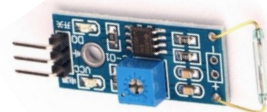**on-board switches**
rec (record)
playE (play track once)
playL (play while pressed)

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

audio outputs

3.3-5V

any on/off switch

VCC

REC

NC

FT

GND

speaker

GND

ISD1820 + 8 ohm speaker

3.3-5V

any on/off switch

bone conductor
transducer

GND
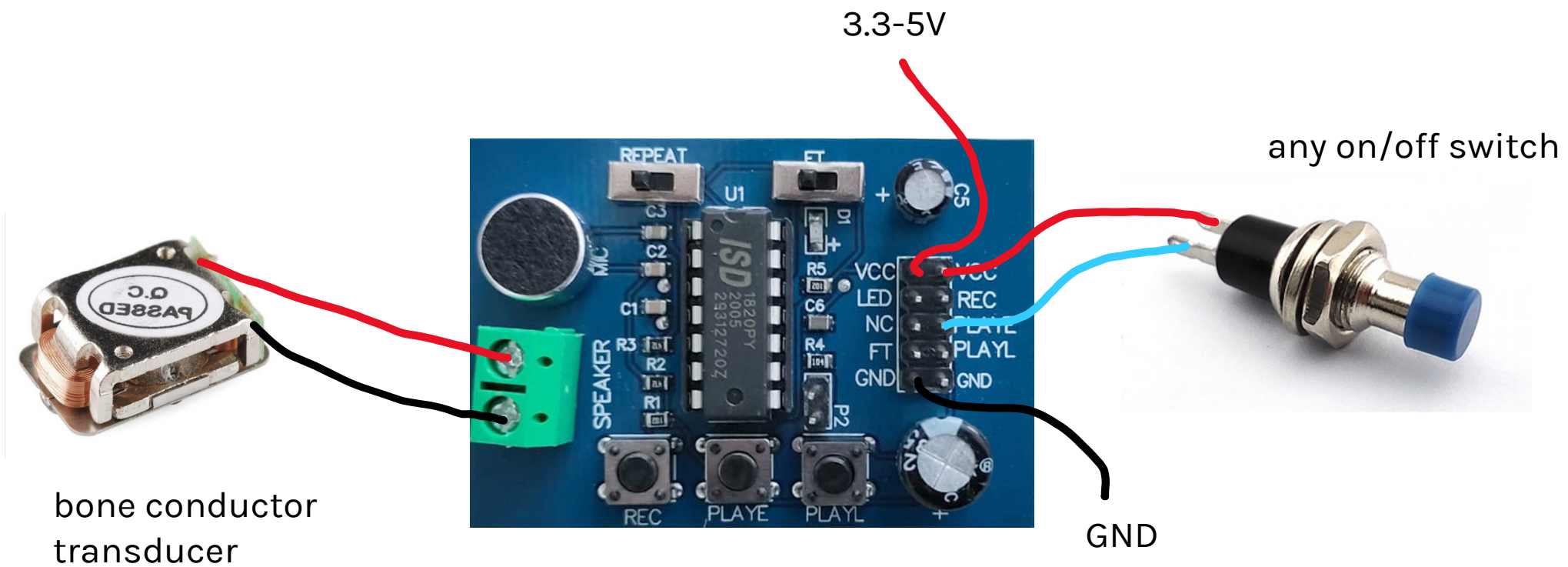
ISD1820 + bone conductor speaker

3.3-5V

any on/off switch

piezo transducer
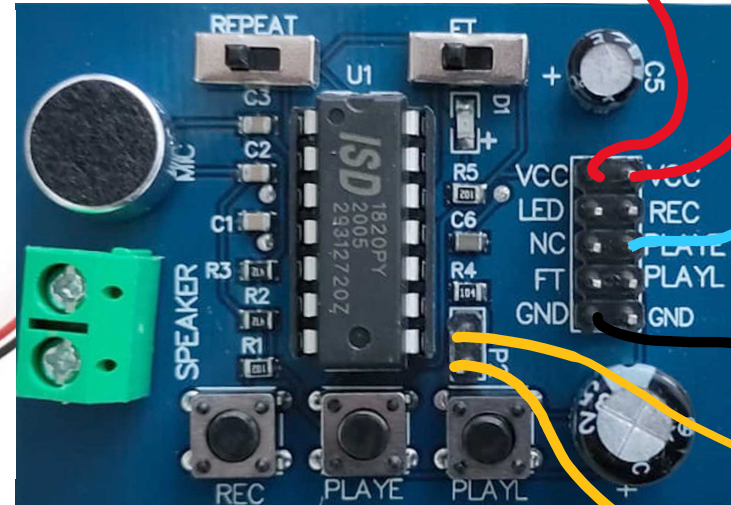
GND
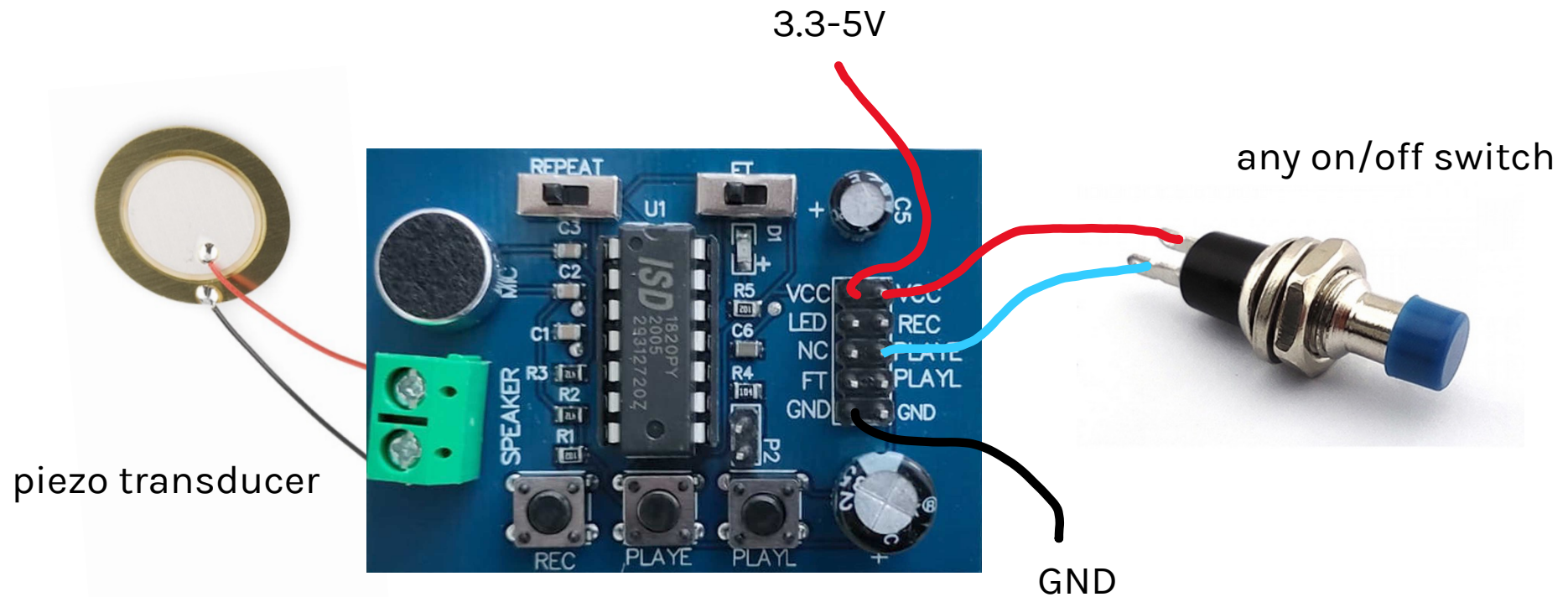
ISD1820 + piezo speaker
Put between your teeth or on jawbone to hear sound

distortion

speaker (or other output device)

3.3-5V

any on/off switch

GND

default when jumper is used

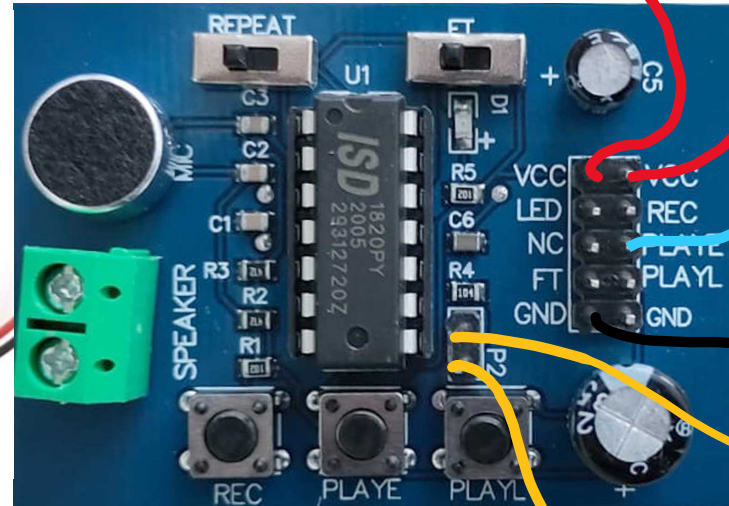| Ω	Record time	Sample rate	Bandwidth
80K	8 secs	8 KHz	3.4 KHz
100K	**10 secs**	**6.4 KHz**	**2.6 KHz**
120K	12 secs	5.4 KHz	2.3 KHz
160K	16 secs	4.0 KHz	1.7 KHz
200K	20 secs	3.2KHz	1.3 KHz

250K or 500K potentiometer

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
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0 Ω   50K Ω   100K Ω   200K Ω

DIY variable resistor

make with conductive paint

triggers

3.3-5V

any on/off switch

speaker (or other
output device)

GND

ISD1820 + light sensor

conductive material

3.3-5V

conductive material

speaker (or other output device)

GND

ISD1820 + light sensor

3.3-5V

VCC   VCC
LED   REC
NC   PLAYE
FT   PLAYL
GND   GND

REC   PLAYE   PLAYL

speaker (or other
output device)

GND
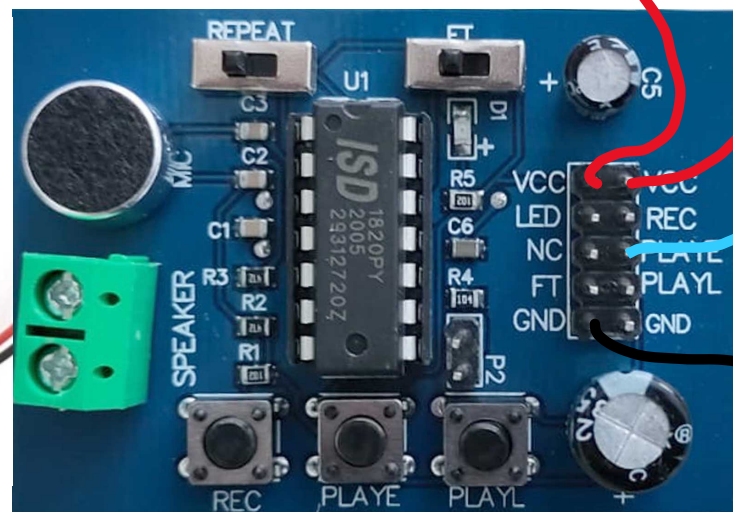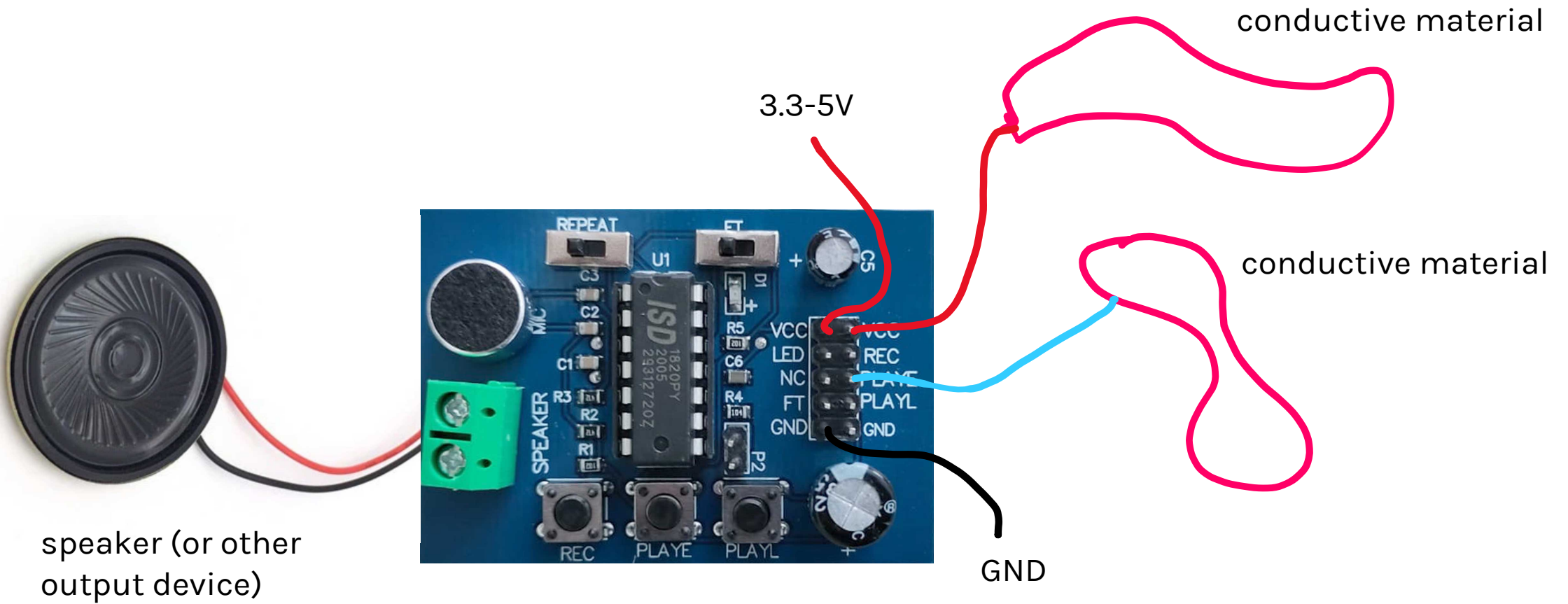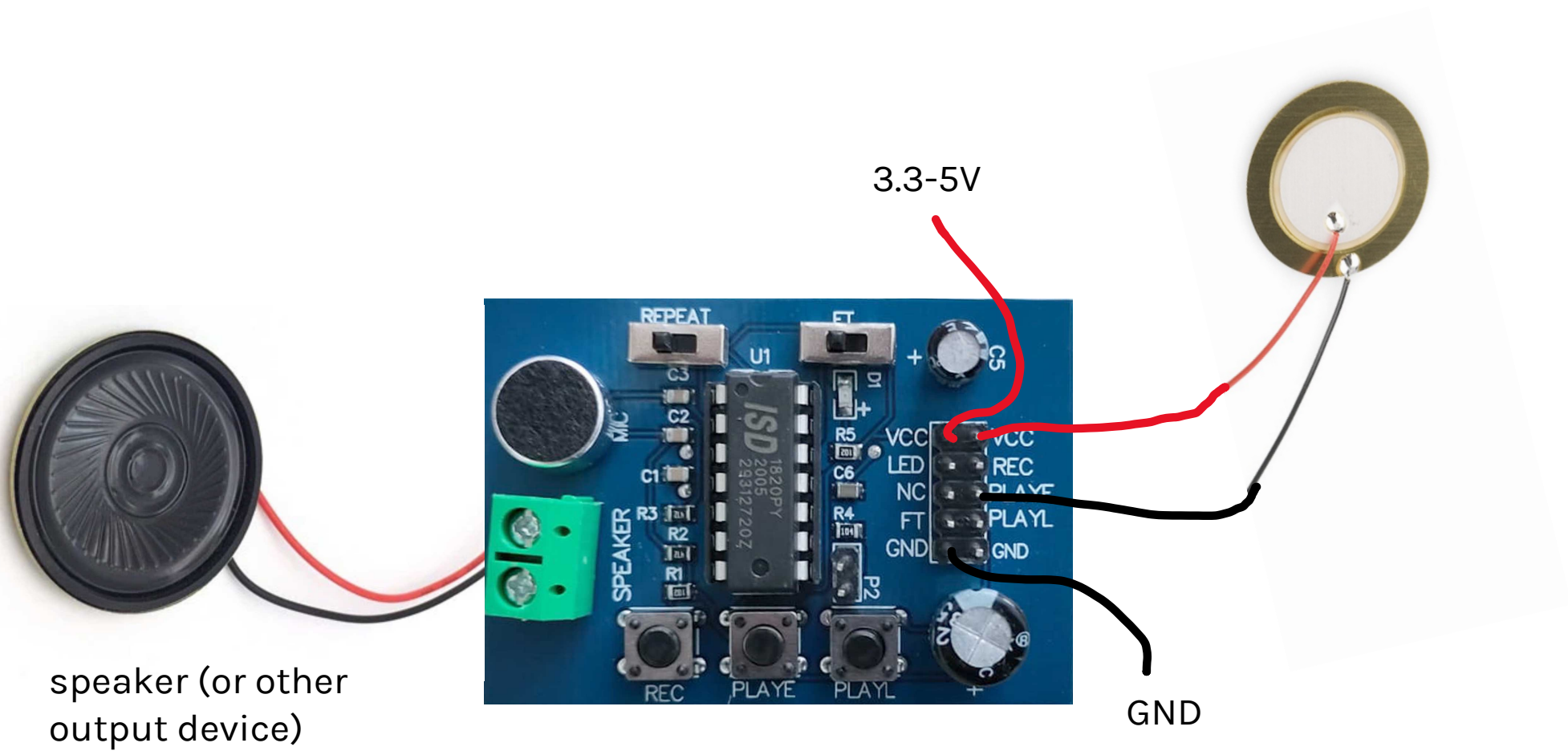
ISD1820 + Piezo transducer
Press, bend or knock trigger

speaker (or other output device)

3.3-5V

GND
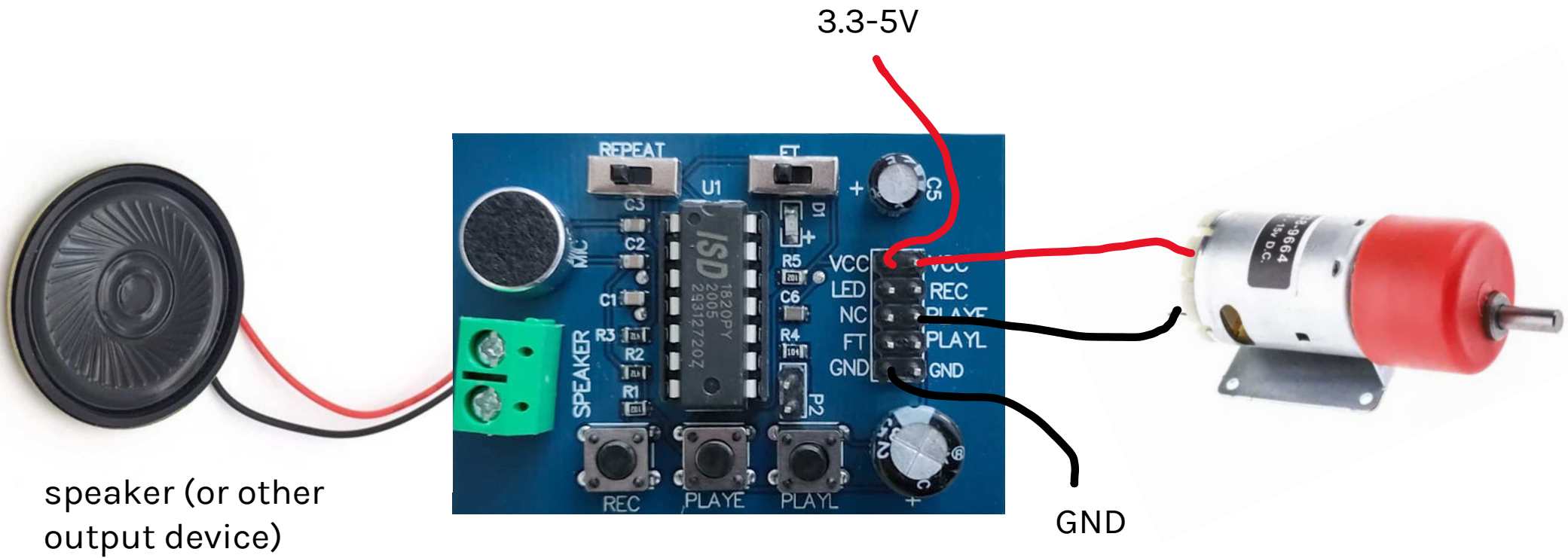
ISD1820 + DC motor
Type e.g. 4.5-15V with gearbox

3.3-5V

sensitivity pot

speaker (or other output device)

GND
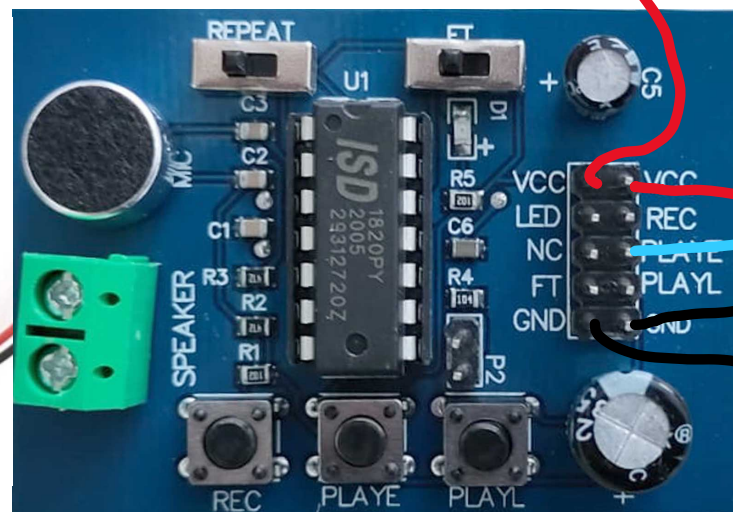
ISD1820 + light sensor

3.3-5V

sensitivity pot
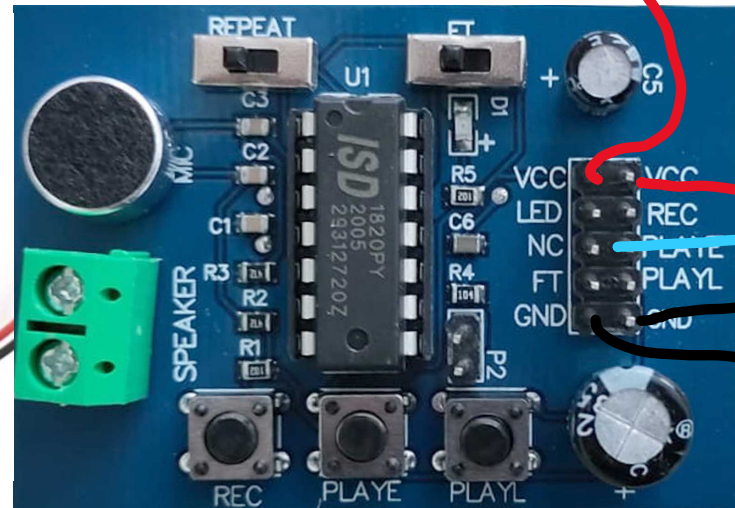
speaker (or other
output device)

GND

ISD1820 + tilt switch

also useful as record switch!

5V laser

sensor eye

3.3-5V

VCC   VCC
LED   REC
NC   PLAYE
FT   PLAYL
GND   GND

GND

speaker (or other
output device)
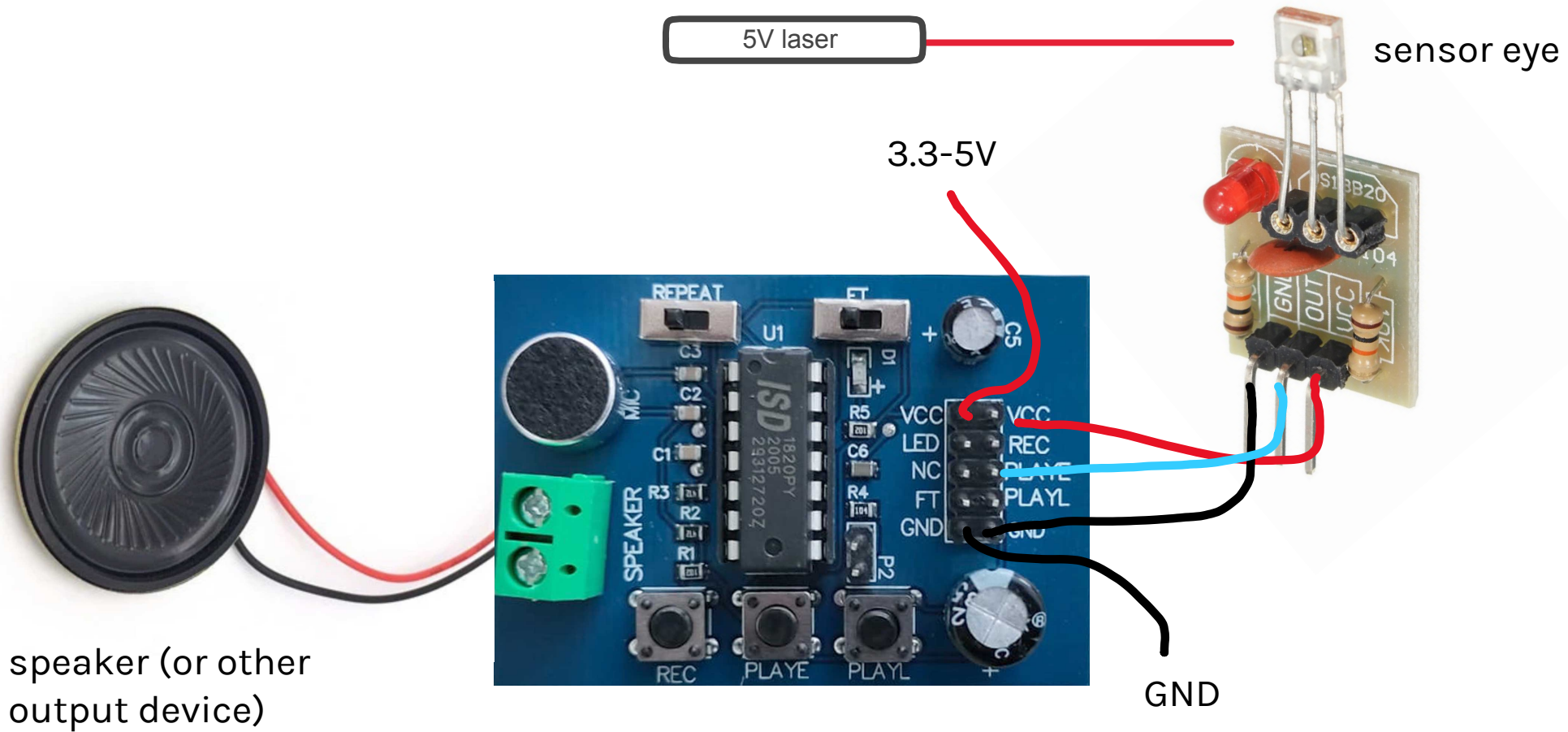
ISD1820 + red laser sensor

3.3-5V

sensitivity pot

speaker (or other output device)

GND
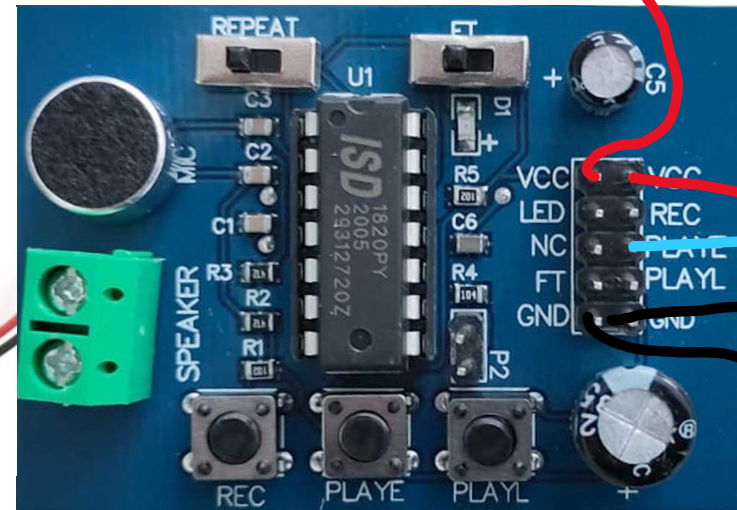
ISD1820 + vibration sensor

magnet

3.3-5V

speaker (or other output device)
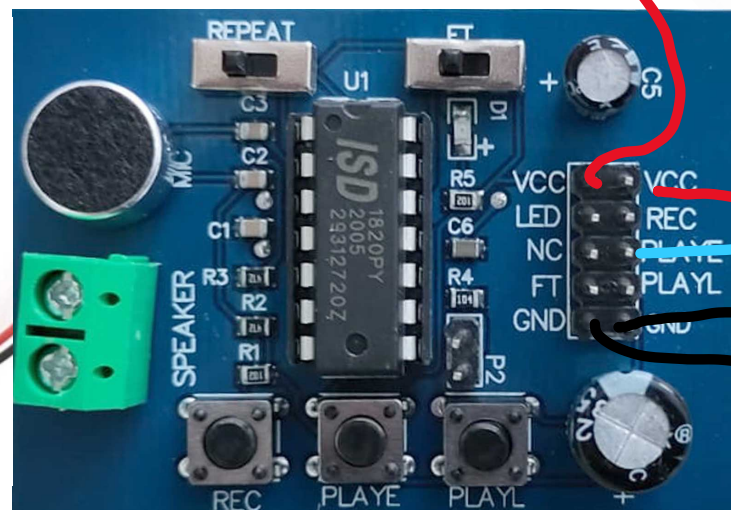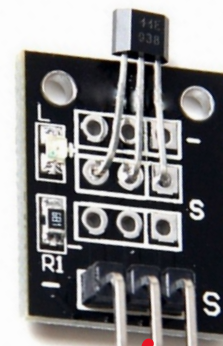
GND

ISD1820 + hall effect sensor

magnet

sensitivity pot

3.3-5V

GND

speaker (or other output device)

ISD1820 + reed switch

speaker (or other output device)

3.3-5V

GND
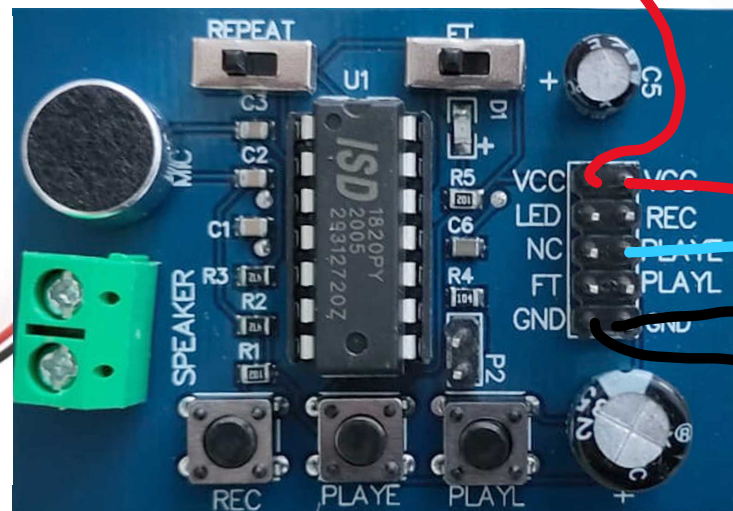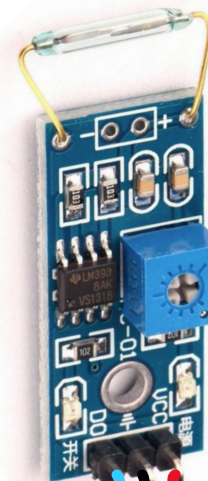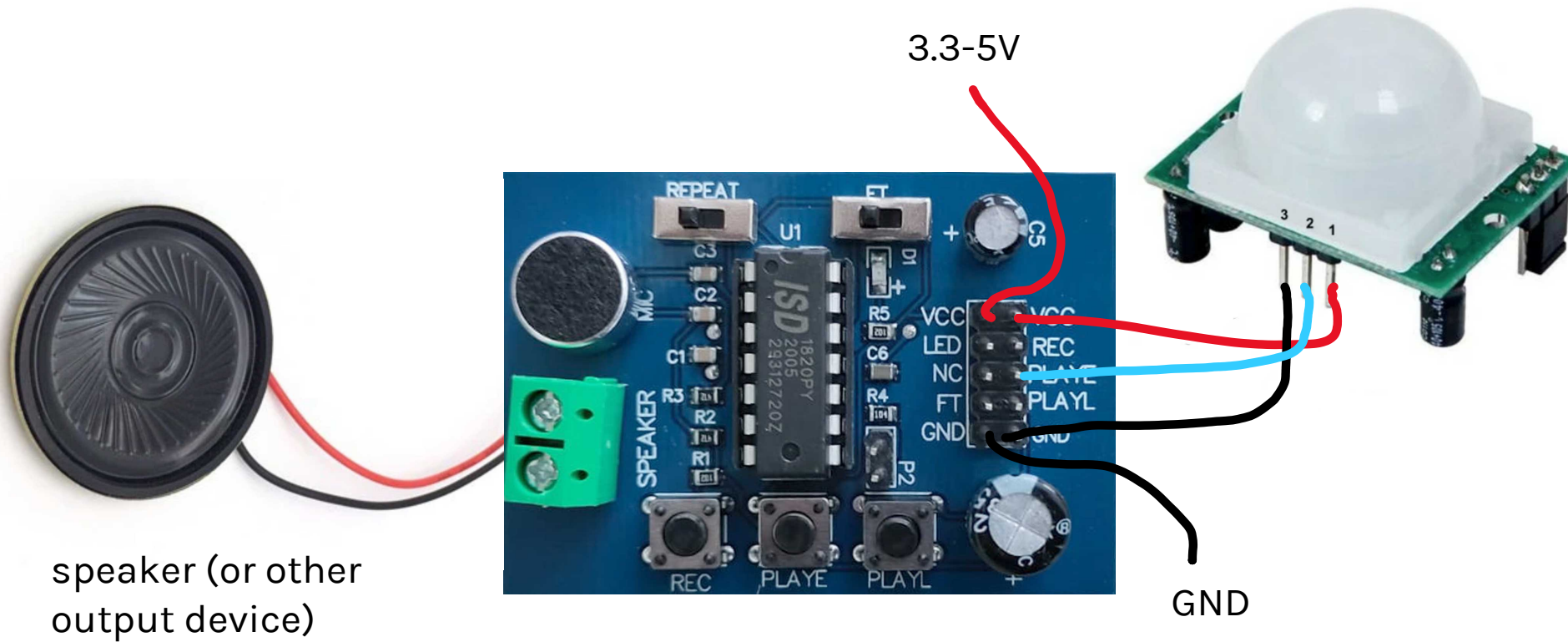
ISD1820 + motion sensor
Needs min 4.5V (might not be reliable at 3.3V)
Tx pot to adjust delay of trigger
Sx pot to adjust sensitivity (distance)