MINIPIC - DIRTY ELECTRONICS & MAX WAINWRIGHT 2019

power-switch
batt
buffer out
100n
78L05
Audio-Jack
sensor out
switch
C2
pot-Input
mono sum
red led
C3
sensor-input
190R
1K
aux-input
5 Volts
?K
pot input
U1
10K
PIC12F1840-Ip
10K
ground
sensor input
U2
100n
MCP6002-xp
C1 47uF
10uH
47n
ICSP1
1n
1K
10K
1K
10K
?K
1K
POT
10K
10K
1M
1M
10K
1M
sensor

Inductor build: 1M
Microphone build: 100K

Inductor only

Inductor build: 100R
Microphone build: 1K

Inductor only

Microphone only

PARTLIST

NOTE!
D1 *polarity (short leg-, long leg +)*
ICs and sockets (notch top)
Capacitors *polarity C6, C7, C8 (short leg -, long leg +)*
Resistors no polarity (any direction)

There are two different builds, one with a microphone and one with a coil/inductor (electromagnetic microphone). Some component values and placements are different in these builds! These components are marked with a ? mark where the value is different and *asterisk* when the component is only used for one of the builds.

The first time a component is listed, the total amount is given in brackets **(x?)**.

U1	**PIC12F1840**	(notch top)
DIL8	**Socket**	(notch top)
U2	**MCP6002**	(notch top)
DIL8	**Socket**	(notch top)
U3	**78L05A**	(5V reg. *note orientation)*
D1	**(x1) LED red**	*polarity (short leg -)*

C1	**100nF (x2)**	(beige 104)
C8	**100nF**	(beige 104)
C6	**1n (x1)**	(beige 152) *inductor build*
C7	**47n (x1)**	(beige 473)

C4	**10 uF (x1)**	*polarity (short leg -)*
C2	**47 uF (x3)**	*polarity (short leg -)***(x3)**
C3	**47 uF**	*polarity (short leg -)*
C5	**47 uF**	*polarity (short leg -)*

R1	**390R (x1)**	(org/wht/blk/blk)
R2	**1M (x2/3)**	(br/blk/blk/yel/br)
R3	**1M**	
R4	**10K (x6/7)**	(br/blk/blk/red/br)
R5	**10K**	

R6	**10K**	(microphone build only)
R7	**1K (x4/5)**	(br/blk/blk/br/br)
R8	**?K**	
	coil/inductor: 100R	(br/blk/blk/blk/br)
	Microphone: 1K	
R9	**10K**	
R10	**1K**	
R11	**?K**	
	coil/inductor: 1M	
	microphone: 100K	(br/blk/blk/org/br)
R12	**10K**	
R13	**1K**	
R14	**10K**	
R15	**10K**	
R16	**1M**	*inductor build*
R17	**1K**	

POT   500K Log potentiometer
sensor (x1)   Microphone/inductor

SW1   (x1) SWITCH ON/OFF
SW5   (x1) Tactile switch

J1, J2, J3, J4, J5, J7 M3 patch/touch
J8, J9, J10, J11 3-way pin header
J6   (x1) 3.5mm audio output
ICSP1 (x1) Six pin connector

Battery clip (the wires should go through the hole in the PCB to protect the connection)
Rubber feet (x4)
Closed jumper (black) (x4)

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NOTE! Minipic V1, one jumper on the back is needed. PIC12F1840 short pin 3 to pin 7.

More info and documentation:
www.dirtyelectronics.org
www.noise.technology
www.maxwainwright.com