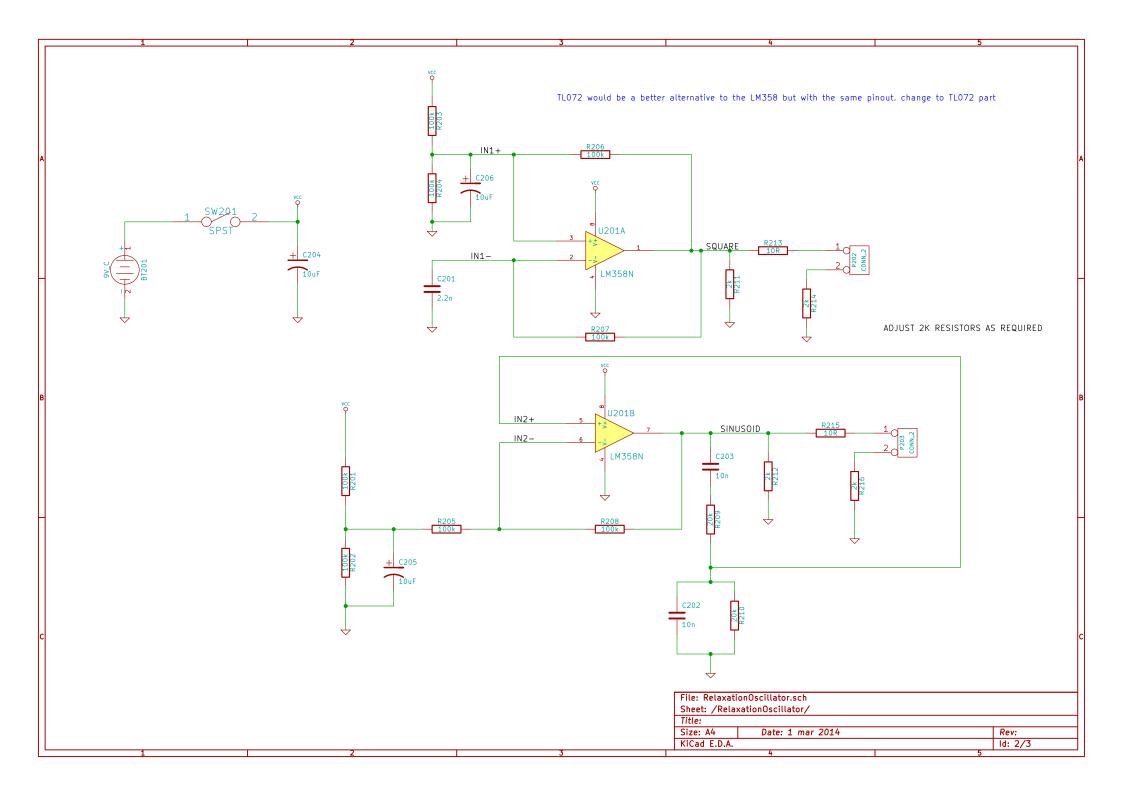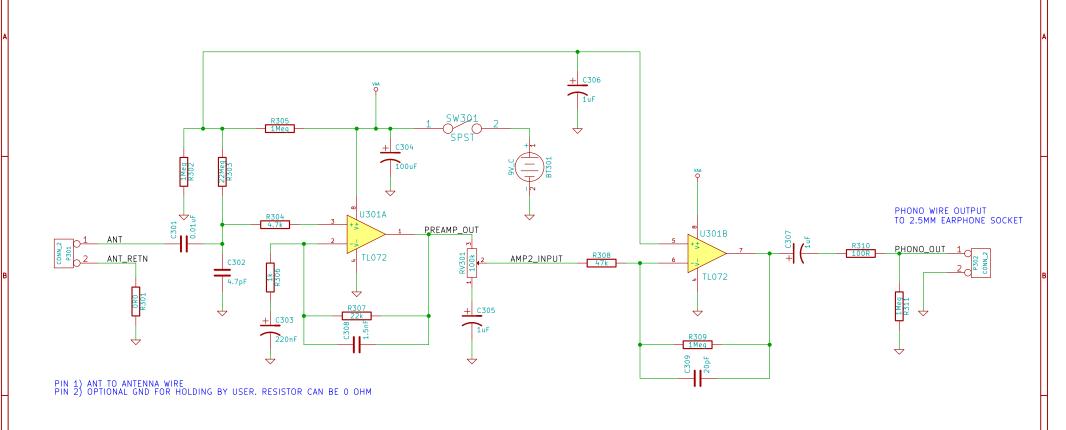CAD A CONTAINS AN ERROR THE WIEN-BRIDGE OSCILLATOR WILL NOT WORK.
ALSO THE CIRCUIT VALUES WILL NOT WORK IN THIS DESIGN. THEY WERE USED AS
FOOTPRINT PLACEHOLDERS TO GET A QUICK PCB MADE. VALUES WERE CHOSEN
LATER. USE THE LATEST CAD.

RelaxationOscillator

RelaxationOscillator.sch

EMF_Receiver

EMF_Receiver.sch

TL072 would be a better alternative to the LM358 but with the same pinout. change to TL072 part

R203 100k

IN1+

R206 100k

C206 10uF

R204 100k

U201A

VCC

3 +
2 -

1

SQUARE

R213 10R

P202 CONN_2

1

2

LM358N

C201 2.2n

IN1−

R211 2k

R214 2k

R207 100k

ADJUST 2K RESISTORS AS REQUIRED

SW201
SPST

1 2

VCC

C204 10uF

9V_C
BT201

U201B

VCC

IN2+ 5 +
IN2− 6 -

7

SINUSOID

R215 10R

P203 CONN_2

1

2

LM358N

C203 10n

R212 2k

R216 2k

R201 100k

R205 100k

R208 100k

R209 20k

R202 100k

C205 10uF

C202 10n

R210 20k

File: RelaxationOscillator.sch
Sheet: /RelaxationOscillator/
Title:
Size: A4   Date: 1 mar 2014   Rev:
KiCad E.D.A.   Id: 2/3

PHONO WIRE OUTPUT
TO 2.5MM EARPHONE SOCKET

PREAMP_OUT

AMP2_INPUT

PHONO_OUT

PIN 1) ANT TO ANTENNA WIRE
PIN 2) OPTIONAL GND FOR HOLDING BY USER. RESISTOR CAN BE 0 OHM

TL072 is the same pinout as LM358 but better spec. So use the TL072 part.

Original design from www.techlib.com/electronics/vlfwhistle.htm with some adaptations

File: EMF_Receiver.sch	
Sheet: /EMF_Receiver/	
Title:	
Size: A4	Date: 1 mar 2014
KiCad E.D.A.	

Rev:

Id: 3/3