MC Theremin by Daniel Marks
September 15, 2018 version

Conn_01x02
J5
Conn_01x01
J8
100 pF C8
C23 150 pF
+5V
U6A 74HC04
2.2M R1
1k R8
C25 150 pF
400 uH L1
GND
U6B 74HC04
GND
U6C 74HC04
PITCHSIG
1k R20
2k2 R21
GND
U1A 74HC04
U1B 74HC04
U1C 74HC04
GND

Conn_01x02
J6
Conn_01x01
J7
100 pF C9
C24 220 pF
+5V
U1F 74HC04
2.2M R2
1k R7
C26 220 pF
400 uH L2
GND
U1E 74HC04
GND
U1D 74HC04
VOLSIG
1k R22
2k2 R23
GND
U6D 74HC04
U6E 74HC04
U6F 74HC04
GND

SW1 SW_Push
10k R9
BUTTON1
C14 100 nF
GND

SW2 SW_Push
10k R11
BUTTON2
C15 100 nF
GND

+3V3
+5V
C20 100 nF
C16 100 nF
C17 100 nF
C18 100 nF
GND
220R R19
+5V
GND
MIDIOUT
1k R16
Q1 2N3904
R30 10k
Q3 2N3904
R18 1k
J21 DIN-5_180degree
10k R14
GND

+3V3 PITCH
RV1 10k
C1 100 nF
+3V3 SENS
RV2 10k
C3 100 nF
+3V3 VOLUME
RV4 10k
C11 100 nF
GND

+3V3 BUTTON3
SW3 SW_Push
10k R31
C19 100 nF
GND

+3V3 BUTTON4
SW4 SW_Push
10k R32
C7 100 nF
GND

U7 Pico
Raspberry Pi Pico
1 GPIO0   VBUS 40 +5V
2 GPIO1   VSYS 39
3 GND   GND 38
4 GPIO2   3V3_EN 37   R24 10k +3V3
5 GPIO3   3V3 36
6 GPIO4   ADC_VREF 35
7 GPIO5   GPIO28_ADC2 34 VOLUME
8 GND   AGND 33
9 GPIO6   GPIO27_ADC1 32 SENS
10 GPIO7   GPIO26_ADC0 31 PITCH
11 GPIO8   RUN 30   R26 10k
12 GPIO9   GPIO22 29
13 GND   GND 28
14 GPIO10   GPIO21 27
15 GPIO11   GPIO20 26
16 GPIO12   GPIO19 25 BUTTON4
17 GPIO13   GPIO18 24 BUTTON3
18 GND   GND 23
19 GPIO14   GPIO17 22 BUTTON2
20 GPIO15   GPIO16 21 BUTTON1
41 SWCLK 42 GND 43 SWDIO
MIDIOUT
PITCHSIG
VOLSIG
SNDOUT
LED2
LED1
GND

+3V3 R34 10k
+3V3 R33 10k
Conn_01x02 J2
GND
C28 100 nF
Conn_01x02 J9
GND
C2 100 nF
GND

SNDOUT
R3 10k
R4 10k
C4 100 nF
C27 100 nF
GND
+9V
U5A LM358
U5B LM358
1k R28
+9V
C13 220 uF
220R R25
2.2M R27
GND
J3A AudioJack2_Dual_Ground_Switch
S1 SN1 T1 TN1 G
GND J4A

1k R29
C6 10 uF
RV5 10k
GND
U4 LM386
C12 220 uF
10k R6
GND
AudioJack2_Dual_Ground_Switch
S1 SN1 T1 TN1 G
GND

J1 Barrel_Jack
+9V
U3 LM7805_TO220
VI VO
GND
C5 100 uF
+5V
C10 100 uF
1k R5
D1 LED
Conn_01x01 J11
Conn_01x01 J12
Conn_01x01 J14
Conn_01x01 J15
GND

C21 100 nF
C22 100 nF
+5V
1k R12
+5V
1k R13
D2 LED
D3 LED
LED1
LED2
GND