



Slide switches on pulled-up SPI pins:
 - midiUSB or midiBT
 - mode (KEYS or KEYS+VOICE)
 - third option?

pulled-up inputs for switches
 gnd + 11 switches = 7 on top and 2+2 on bottom
 optional: pin13 (arduino pin D15) acts as common pulse for capacitive sensors for seven switches on top

Beware: normally comparator should be below histeresys
 - triggered high only on louder sound level that get over 2.5V
 - preamp prepares levels for valid transistions around 2.5V
 - comparator translates transitions to 0-5 logic levels
 - low capacitor values around U1A are LF filters (100Hz)
 - on output of U1A there is RC HF filter (1KHz)

RC:
 1K + 1u = 160Hz
 10K + 0.1u = 160Hz
 1K + 0.1u = 1600Hz

switches functions:
 OCT+ pin11
 OCT- pin12
 LOOP STOP/PLAY pin8
 LOOP RECORD/PLAY pin10

Pro micro 16MHz / 5V
 USB micro on Serial port
 Rx, Tx on Serial1 port

Pro Micro Midi Breath Flute
 - needs 11 switches (7 up, 2 + 2 down)
 - must be able to act as didgeridoo - voice frequency detection
 - piezo-resistive pressure sensor is a microphone

MPXV7002 is designed to measure positive and negative pressure. In addition, with an offset specifically at 2.5V instead of the conventional 0V, this new series allows to measure pressure up to 7kPa through each of the two ports (port 1: pressure sensing, port 2: vacuum sensing). For pressure only - leave port 2 open

Features:
 - -2 to 2 kPa (-0.3 to 0.3 psi).
 - 0.5 to 4.5 V Output

interrupt pin INT4/ D7 can measure the number of transitions per known time interval = frequency



Promicro Midi Breath Flute

simple version, 7 + 4 switches, bluetooth transmitter

Sheet: /		Rev:	
File: ProMicroBreathSimple.sch		Id: 1/1	
Size: A4	Date:		
KiCad E.D.A. kicad (5.1.5)-3			