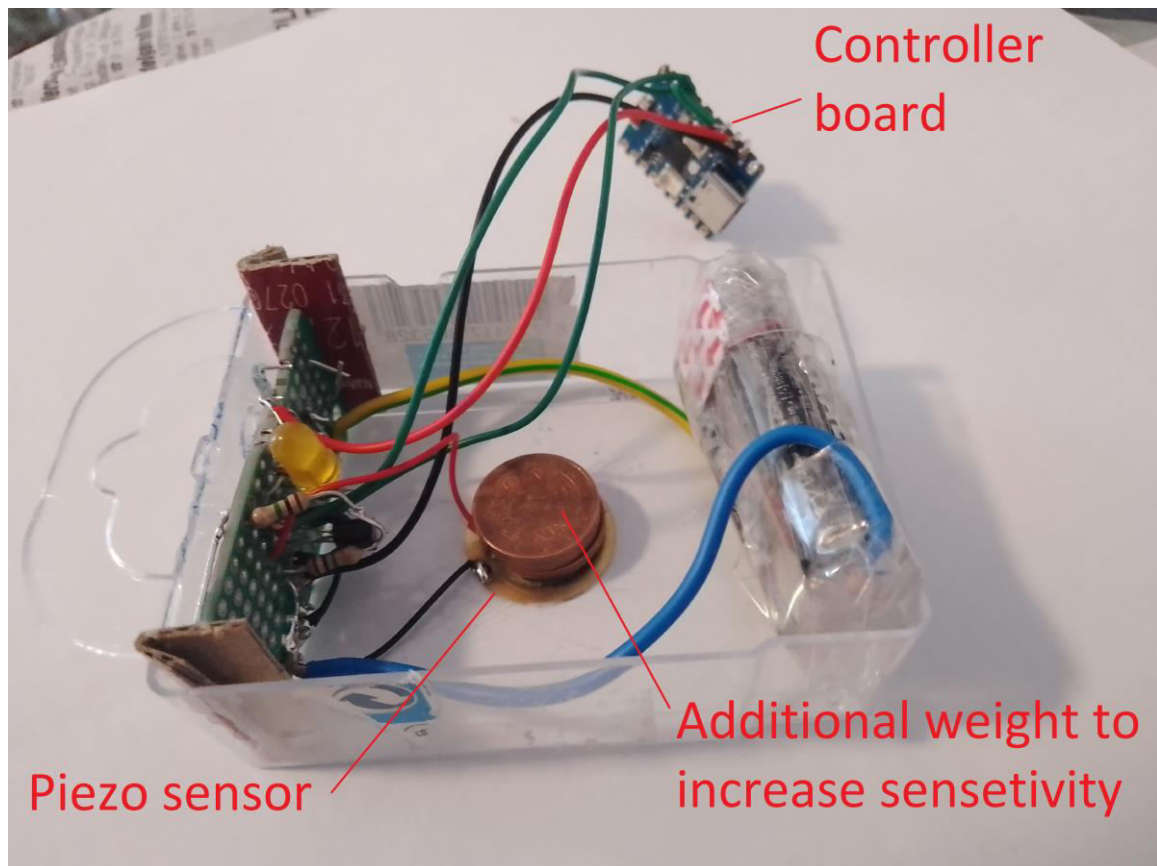
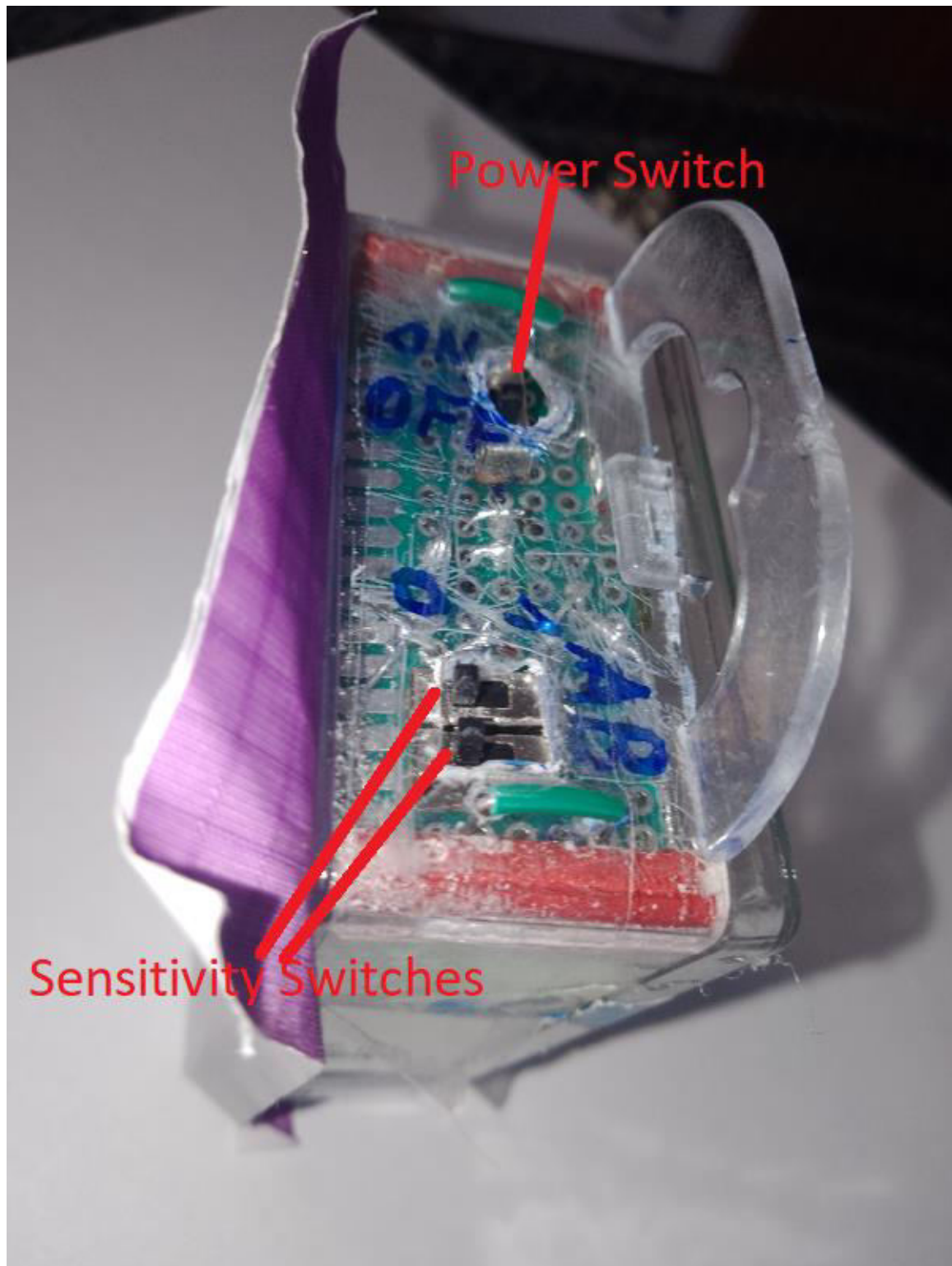


PROTOTYPE DESCRIPTION 1

Componentst are fixed by a soft foam. A sticky fabric is glued to the sensor side, to attach to the tank:







FUNCTIONING

Most of the time the sensor is in sleeping mode. When any loud sound is detected, the sensor awakes and start analyzing the sound. It is indicated by a short flush of LED. The analyzing lasts 1.8 seconds. If during that time there is any period when the sound is continuous above some threshold level (defined by sensitivity) for at least 1.0 seconds long - a flush is detected. So, short sound are not detected, whatever loud. Sounds are considered as continuous if the pause is less than 0.1 seconds, to tolerate irregularities in the flush sounds.

If the flush is detected, the LED is on for 4 seconds. So, the total duration of the analyzing process is 6 seconds since the short flush. Then the sensor gets sleeping, ready for new sounds. During the time between 1.8 and 6 seconds from the short flush the sensor is not responsive.

SENSITIVITY

There are two switches, A and B, to adjust sensitivity if needed. Less voltage - better sensitivity.
Combination as follow:

A	B	Sensitivity, mV	

0	0	60	best sensitivity
0	1	120	seems optimal for my conditions, default
1	0	286	
1	1	452	worst sensitivity

60 mV:



120 mV:



286 mV:



452 mV:



BATTERY VOLTAGE CONTROL

There are two contacts outside the enclosure to control the battery voltage. This version has no compensation for the voltage changes while the battery discharge, so it may be important. Better not

to drop below 3.00 V. The battery should last for about 100 hours probably.

