

Readme file for drone noise recordings taken in  
08/08.

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## 1 Array setup

- Micrpohne: MEMS

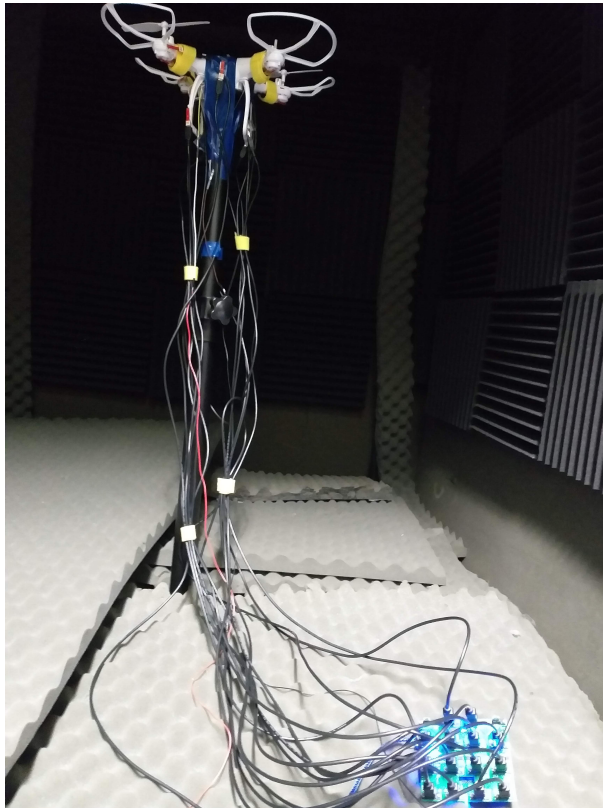


Figure 1: Experimental setup.

- Microphone array configurations

1. Underneath the motor (BB): *ch 1 - 2*.
2. Side of the motor (BB): *ch 3 - 4*.
3. Landing gear (BB): *ch 5 - 6*.
4. Underneath the motor (FB): *ch 9 - 10*.
5. Side of the motor (FB): *ch 11 - 12*.
6. Landing gear (FB): *ch 13 - 14*.
7. Underneath the motor (BA): *ch 15 - 16*.
8. Side of the motor (BA): *ch 17 - 18*.
9. Landing gear (BA): *ch 19 - 20*.
10. Underneath the motor (FA): *ch 21 - 22*.
11. Side of the motor (FA): *ch 23 - 24*.
12. Landing gear (FA): *ch 25 - 26*.
13. Back : *ch 27 - 28*.
14. Front: *ch 29 - 30*.
15. Top: *ch 31 - 32*.

Table 1: MEMS microphone position on the drone (Cartesian coordinates (x, y, z) in meters).

<i>q</i>	x	y	z	<i>q</i>	x	y	z
1	-0.12	0	-0.02	18	0	-0.09	-0.01
2	-0.11	0	-0.02	19	0	-0.07	-0.09
3	-0.1	0	-0.01	20	0	-0.07	-0.1
4	-0.09	0	-0.01	21	0	0.12	-0.02
5	-0.07	0	-0.09	22	0	0.11	-0.02
6	-0.07	0	-0.1	23	0	0.1	-0.01
9	0.12	0	-0.02	24	0	0.09	-0.01
10	0.11	0	-0.02	25	0	0.07	-0.09
11	0.10	0	-0.01	26	0	0.07	-0.1
12	0.09	0	-0.01	27	0.04	-0.04	0
13	0.07	0	-0.09	28	0.04	-0.04	-0.01
14	0.07	0	-0.10	29	-0.04	0.04	0
15	0	-0.12	-0.02	30	-0.04	0.04	-0.01
16	0	-0.11	-0.02	31	0	0	0
17	0	-0.1	-0.01	32	0	0	-0.01



Figure 2: Microphone array placement on drone from the front.

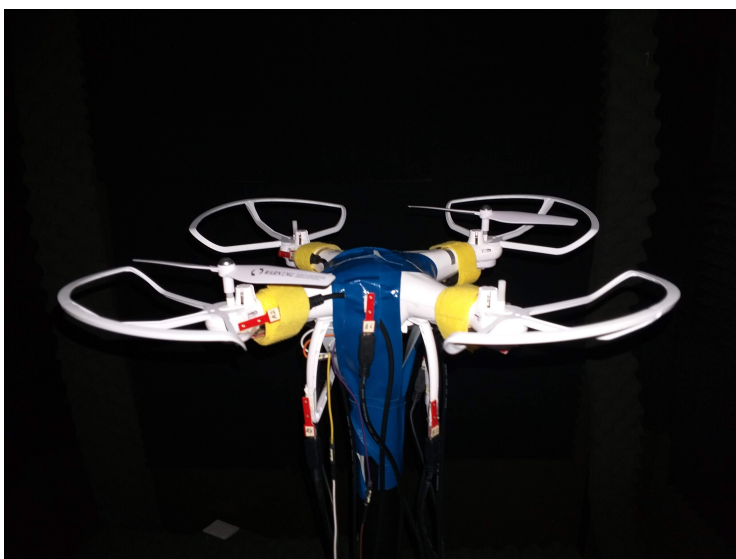


Figure 3: Microphone array placement on drone from the back.



Figure 4: Microphone array placement on drone: with the operated motor.

## 2 Recording properties

- Device: 'STWaves Audio Interface 8x32'

## 3 Folders

- Drone motor noise recordings (with all propellers and motors operating):  
"DroneNoise"