Possible situations triggering the starting time

1. Opening of tube 20cm distanced from mouth

3sec

5sec

1. Opening of tube 10cm distanced from mouth
2. Opening of tube before the teeth
3. Opening of tube after the teeth

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2sec (Johnathan) | 63%RH(room) | 88.82%RH | 89.1%RH | 89.12% |
| 2sec (Sam) |  | 88.41%RH | 89.42% | 89.07% |
| 2sec(Jimmy) |  | 90.59% |  |  |
|  |  |  |  |  |

1sec 76%, 76%, 80%, 79%

4sec 91.98%, 91.03%, 89.58%

6sec 93.55%, 94.24%, 93.96%

Normal breathing : 74.18%(max)

(starting time: maximum differential between two humility +xx )

Problem faced during testing:

1. Triggered when nose is approaching as well (humility, wind)
2. Temperature (up and down between )
3. Cough and so on can trigger

Method:

1. 何’s (open round mouth)has lower resistance and velocity
2. 吹(round lips) has higher resistance and velocity

Suggestion:

1. Voltage should be higher (7.35v) as it helps narrow the noise. (Should be within 5V)
2. Real-time OS in ESP32 can operate different tasks at the same starting time.

Edge Impulse:

1. Tube should be in series
2. Sort out by eyes first, then classify
3. Recording two peaks in one window may reduce the accuracy, why?
4. Uncertainty could be one of the classifications, which won’t reduce the situation of overfeed. Uncertainty happens, more screenings are needed.
5. Huffing has two graphs (1: supported, no supported for 3 sec)
6. Blowing has significant peak
7. Supported huffing & blowing (tube inside the mouth & in front of round mouth) within 3 sec