

**Artificial Intelligence Respiratory Monitor Device** 

# **World's first** Al-powered continuous breathing sound monitoring device

#### An innovative stethoscope transcending limits of time and space

AIRMOD ameliorates patient safety by providing continuous respiratory monitoring, transforming acoustic signals into visualized spectrogram, as well as sending timely alerts upon detection of adventitious sounds powered by deep-learning algorithm.

#### Respiratory monitoring in

- Procedures taken under un-intubated anesthesia / sedation
  - including but not limited to colonoscopy, upper GI endoscopic examinations,
  - cystoscopy, dental procedures, plastic surgeries, obstetric procedures...
- Intensive care unit and isolation unit for highly contagious diseases (ex. COVID-19)
- Emergency medical care particularly in ambulance car or helicopter with elevated noise level







# Respiratory Spectrogram Identification

#### **Normal Breathing**



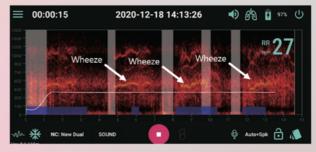
Under normal inhalation and exhalation conditions, the spectrogram shows a red sign, and the white frame is for inhalation identification.

#### Apnea



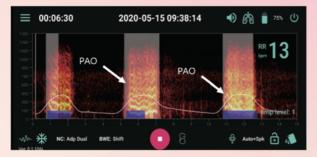
Apnea means that there is no sound energy, the spectrogram is completely black

#### Wheeze



The stridor is characterized by high frequency and continuous, most often the end of exhalation, with horizontal bars in the frequency spectrogram.

### Partial Airway Obstruction



Due to partial airway obstruction, the patient needs to use a large amount of energy to breathe, so it appears yellow, the frequency spectrogram has a long duration

## **Total Airway Obstruction**



Before the apnea, the patient start breathing but cannot effectively drive a complete breath, an incomplete breathing cycle, and the duration of the spectrogram is short.

