

Portable Respiratory Innovation for pulmonary Support, Management and lung Analysis for improvement in COPD and asthma patient

Krittapol Keeratiruangrong | Dolmint Siao | Sunyapat Akkarajeerawat

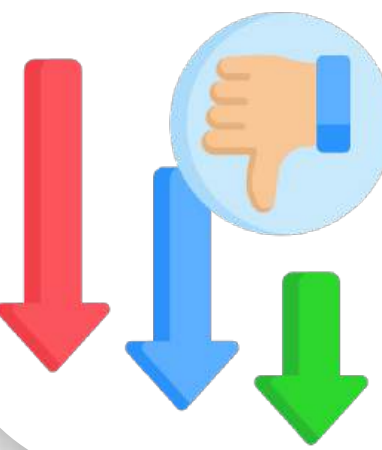
Problems



Weaker lung functionality
in **Elderly** people

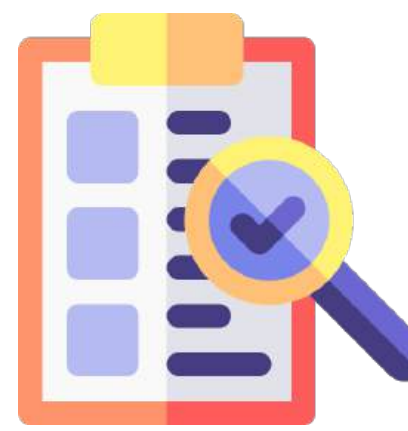


High Risk of respiratory
diseases in **Smokers**



Temporary and
Inconvenient interventions

Solutions



Precise **Respiratory**
Evaluation function



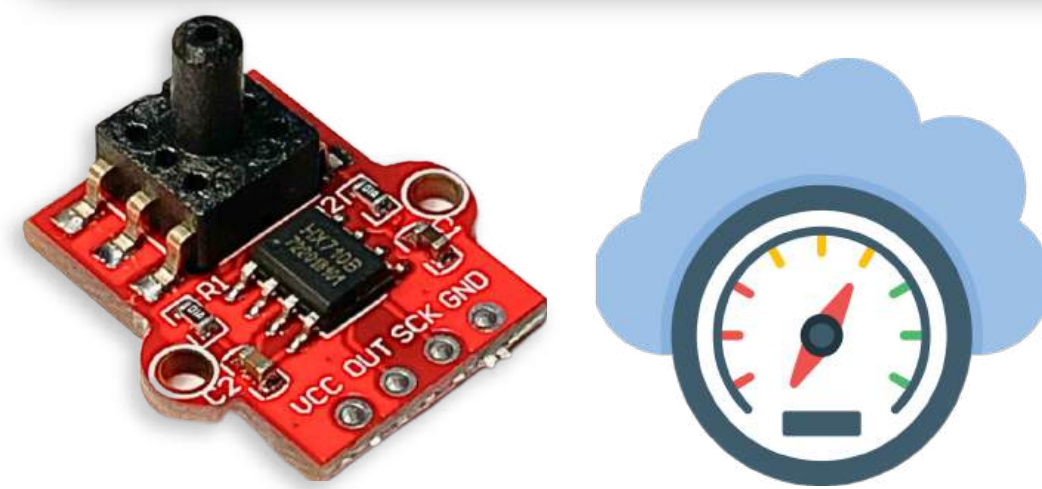
Improved range of
Rehabilitation system

Wind Turbine



Measure **Wind**
speed

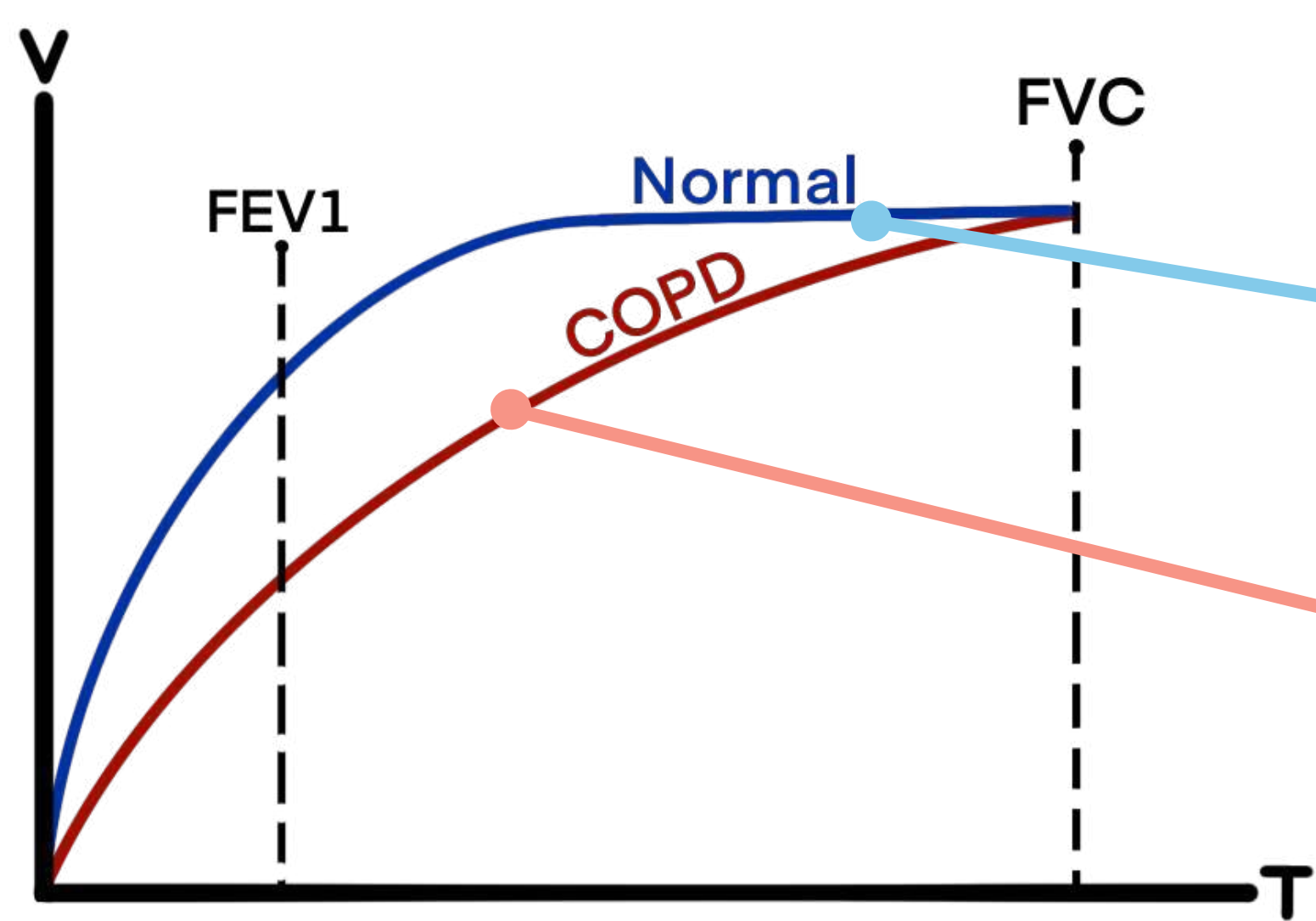
Air sensor



Measure **Air**
pressure



Pulmonary Function Test



FEV1/FVC

> 70% ✓

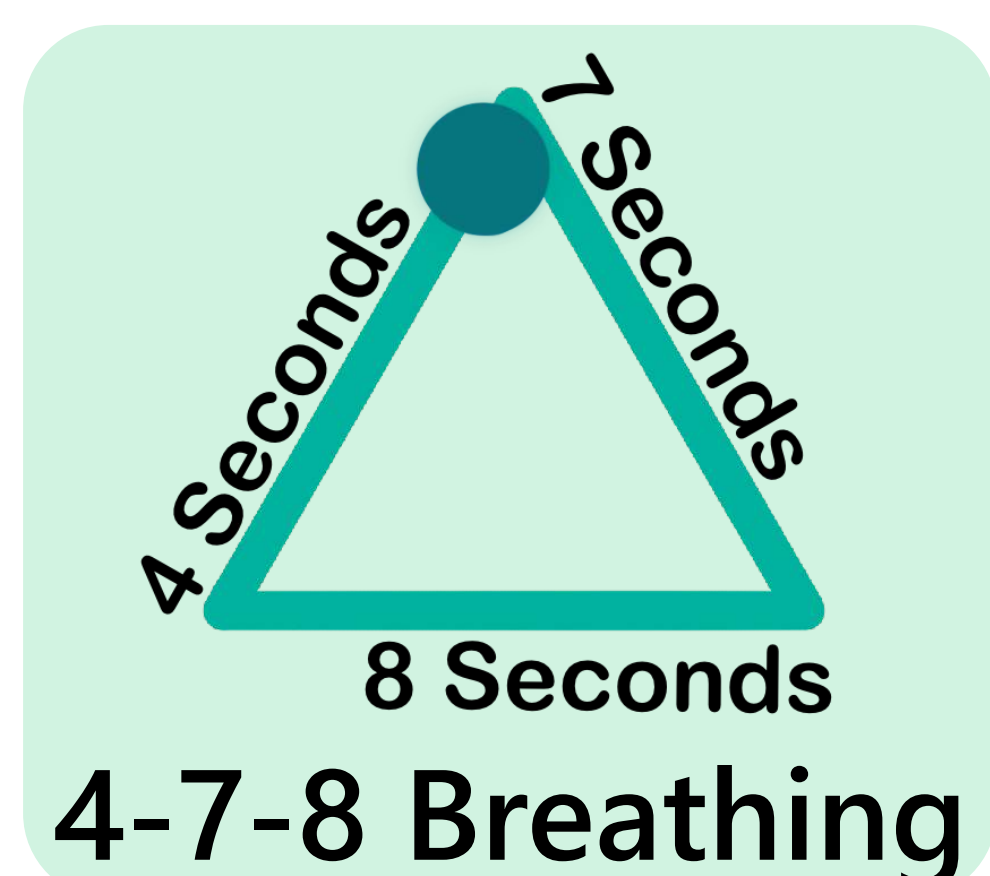
FEV1/FVC

< 70% ✗

The Lung Performance
will be **Compared** to
the **Predicted Value**
for their **Age Group**

Rehabilitation program

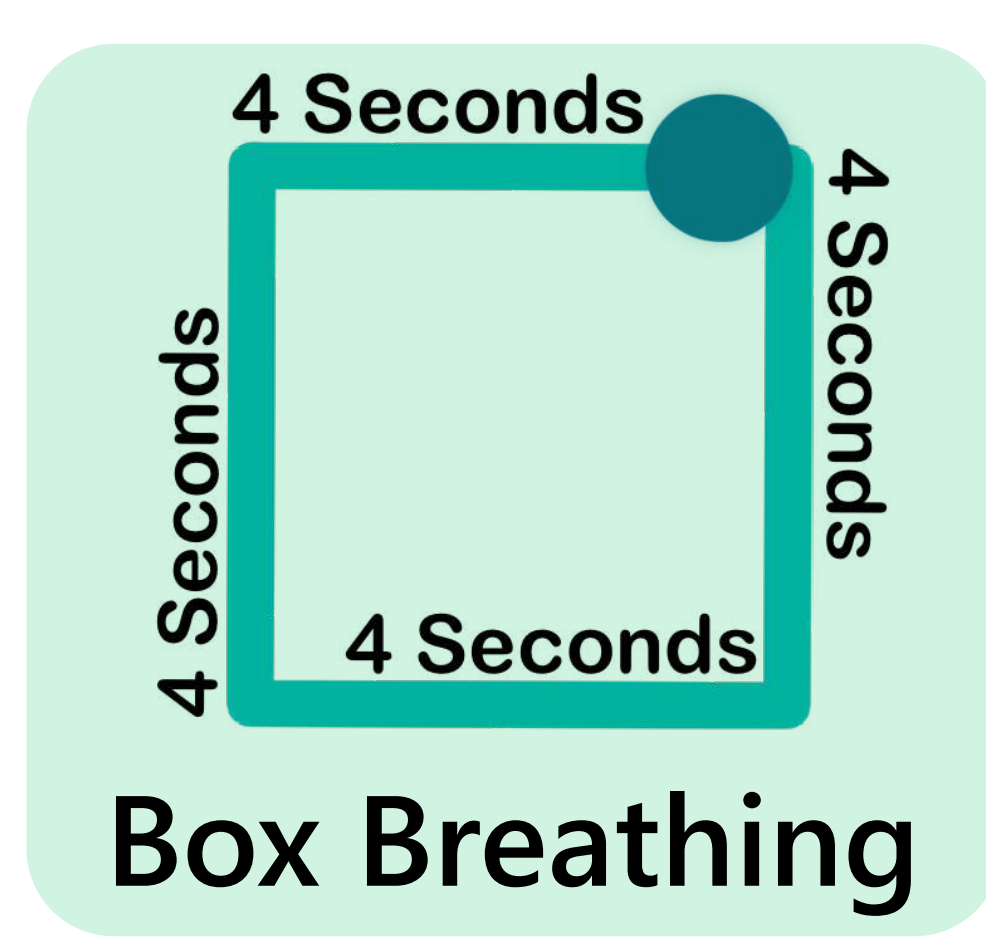
Breathing Technique



For **Relaxation**
and reduce **stress**



Improve overall
Sleep quality

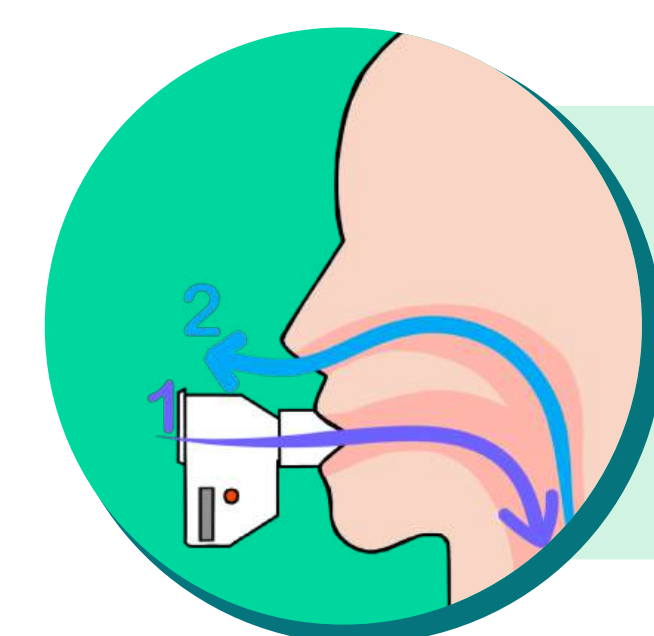
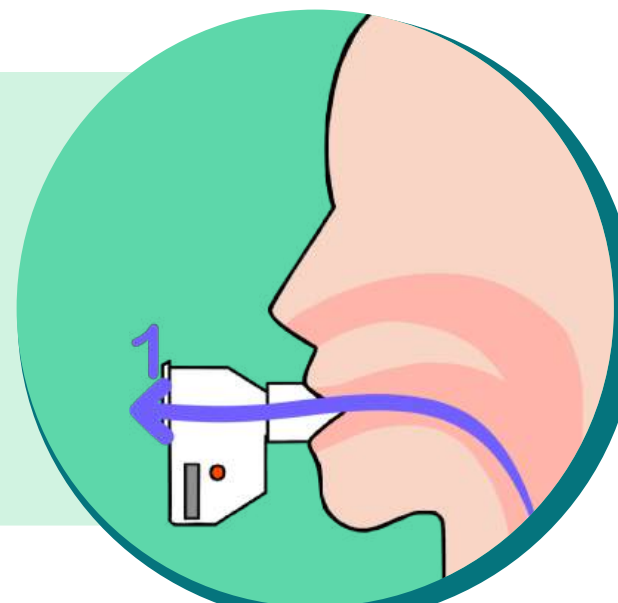


Box Breathing

Respiratory Exercise

Buteyko Breathing
Technique

Reduce **Hyperventilation**

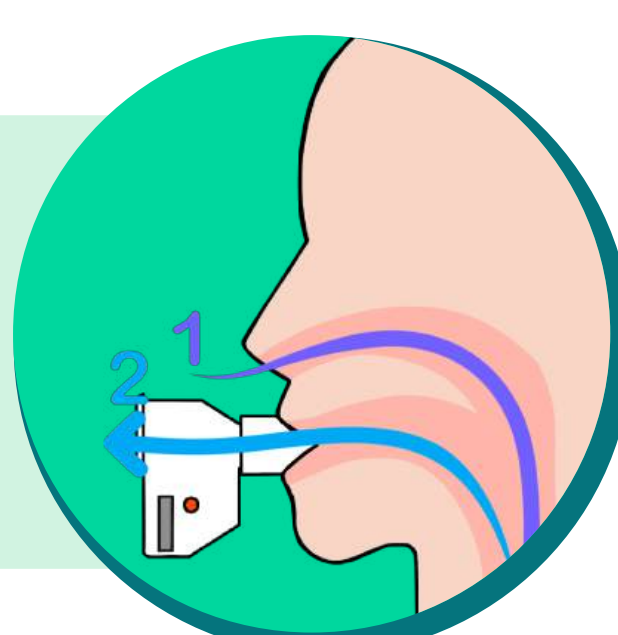


Inspiratory Muscle
Training

Reduce **Dyspnea** state

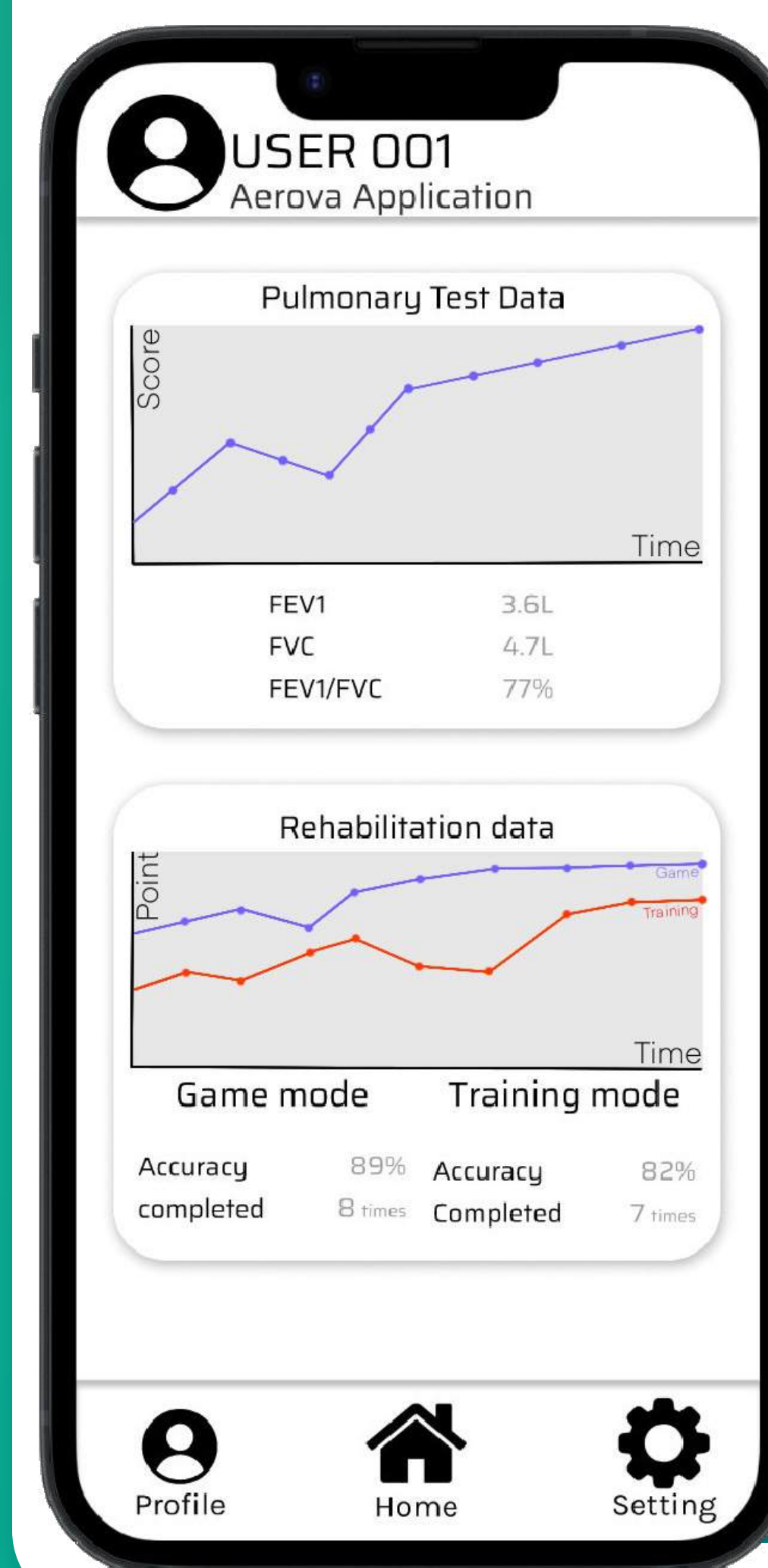
Pursed Lip
Breathing

Reduce **Hypocapnia** state



Functions

Progress Tracking



Application record

Pulmonary Test
and **Exercise Result**

FEV1, FVC, FEV1/FVC

Pulmonary Test Data

Technique
Data

Training
Data

Rehabilitation Data



Comfortable
usage



Advanced
Rehab system



Track all
Result



Members

Krittapol Keeratiruangrong
Dolmint Siao
Sunyapat Akkarajeerawat

Advisor

Chanan Keatsirisart
Adirek Pitak
Suwanna Amporndanai

Contract Us

krittapol.ke@gmail.com
akk.sunyapat@gmail.com
xiaodolmint@gmail.com