You can feel “life” with the Robot

mikoto is a simulator for medical education with a realistic appearance, internal structure and biological reaction as if it has a feeling close to human beings that has never been before, being treated as actual human beings. Before intubation to the actual patient, by using mikoto which feels close to the human body feeling, sensation and reactions, it is possible to make the procedure more reliable by repeated training with tension and realism. By utilizing this product developed to meet the needs of medical education that emphasizes practice and medical safety, we aim to improve medical technology and realize more secure and safe medical treatment.
**Extremely human-like constructions and functions**

- Reproduction of wakeful and anesthesia state
- Reproduction of rise of the chest
- Opening and closing of esophageal inlet at the time of endoscopic insertion
- Reproduction of deviated nasal septum (random setting)
- Opening and closing of esophageal inlet by voice recognition
- Function of inflating and deflating stomach by injection and absorption of air

**Human-like biological reaction**

- Representation of the reaction when an endoscope touches pharynx
- Adjustment for the sensitivity of patient’s reflection and reaction with 10 steps

**Quantification of the burden on patients**

- Evaluation of the burden on patients by pressure, time, etc. at the time of endoscopic insertion

---

**Internal organs / functions**

- Nasal cavity
- Oral cavity
- Pharyngolarynx
- Stomach
- Duodenum

---

**Extremely human-like constructions**

- Realized feeling close to the actual procedure of laryngoscopy
- Reflection of the anatomy

**Reproduction of many difficult cases in tracheal intubation**

- Restriction in mouth opening or retroflexion of the neck
- Many types of internal structure

**Required procedures in clinical practice**

- Nasal / oral tracheal intubation
- Confirmation of sniffing position
- BURP training by reproducing thyroid cartilage
- Training of the procedure of bag valve mask
- Airway management with a laryngeal mask airway
- Bronchofiberscope intubation
- Double-lumen endotracheal tube intubation
- Training of jaw thrust maneuver
- Training of bronchoscopy (option)

---

**Tottori University Hospital**

In order to emphasize practice, realize medical safety, acquire skill of home treatment and evaluate equipment operation, we cooperated with Tottori University Simulation Center which conducts practical medical and nursing education, and other divisions such as Division of Anesthesiology and Critical Care Medicine, Division of Otolaryngology, Head and Neck Surgery and so on, and we developed a highly realistic medical education simulator that meets the specifications required in the medical field.