QTrobot - Expressive Humanoid Social Robot

QTrobot is an expressive social robot designed to support a variety of use-cases including education of children with autism and other special needs education and human-robot interaction research and teaching. There are 3 main products of QTrobot: “QTrobot for Home”, “QTrobot for School “and “QTrobot for Research”. Please refer to the luxai.com website for updated prices of each product and variant.

1. QTrobot For Research

QTrobot for Research is a powerful platform for Human-AI research and teaching used by top research institutes around the world for STEM education, elderly care, healthy ageing and much more! Bellow is some general information about QTrobot for Research product. For more information, please visit “QTrobot for Research Labs” page on “luxai.com” website. Technical documentation covering the different ways of programming QTrobot, SDK and various of coding tutorials can be found on “docs.luxai.com”.

1. Amazing use cases of QTrobot research community :

- Supporting students with learning disability though socially assistive robot
- Music therapy in elderly care houses
- Supporting meaning in later life using social robot companion
- Improving computational thinking and problem solving in students
- Robot storyteller eliciting empathy in social interaction
- Facilitating hand writing in children with dysgraphia

2. Different ways of programing QTrobot:

QTrobot can be programmed in two ways:

1. Coding by using its comprehensive SDK for ROS, Python, C++, etc.
2. Visual Scripting using its graphical studio for less technical users.

1. Programing QTrobot using SDK:

Attach your LCD, keyboard and mouth to the QTrobot and you have a standard Ubuntu desktop that you can check your emails while programming the QTrobot using its powerful ROS api with Python, C++ or JavaScript. Embrace innovation as an integral part of your daily routine, where endless possibilities await you through popular machine learning frameworks like TensorFlow and PyTorch, readily available at your service.

2. Programing QTrobot using Graphical Studio:

In addition to its ROS SDK, QTrobot’s simple and easy-to-understand block-based studio empowers non-technical researchers to easily create advanced interactive applications. Even as a technical user, you will find

the QTrobot studio handy to quickly prototype engaging applications for your research experiment. QTrobot blocks support communicating with ROS, facilitating an interdisciplinary research that brings technical and health-education experts together.

3. QTrobot For research's variants:

- QTrobot I5:
    - Computing board: Intel NUC I5
    - Memory and storage: 8 GB RAM + 128GB SSD
- QTrobot I7:
    - Computing board: Intel NUC i7
    - Memory and storage: 32 GB RAM + 512GB SSD
- QTrobot AI-at-Edge (most advanced version):
    - Computing board: Nvidia Jetson AGX Orin
    - Memory and storage: 64 GB RAM + 2TB NVMe

2. QTrobot For School

QTrobot for Schools is an easy-to-use assistive tool for increasing children's engagement. QTrobot provides efficient progress monitoring through its automated session reporting and insights dashboard. For more information, please visit "QTrobot for Schools & Therapy Centers" page on "luxai.com" website.

3. QTrobot For Home

QTrobot for Home supports parents to practice daily life skills with their children at home by offering hundreds of professionally designed educational modules on cognitive, language, social, and emotional skills. For more information, please visit "QTrobot for Families" page on "luxai.com" website.