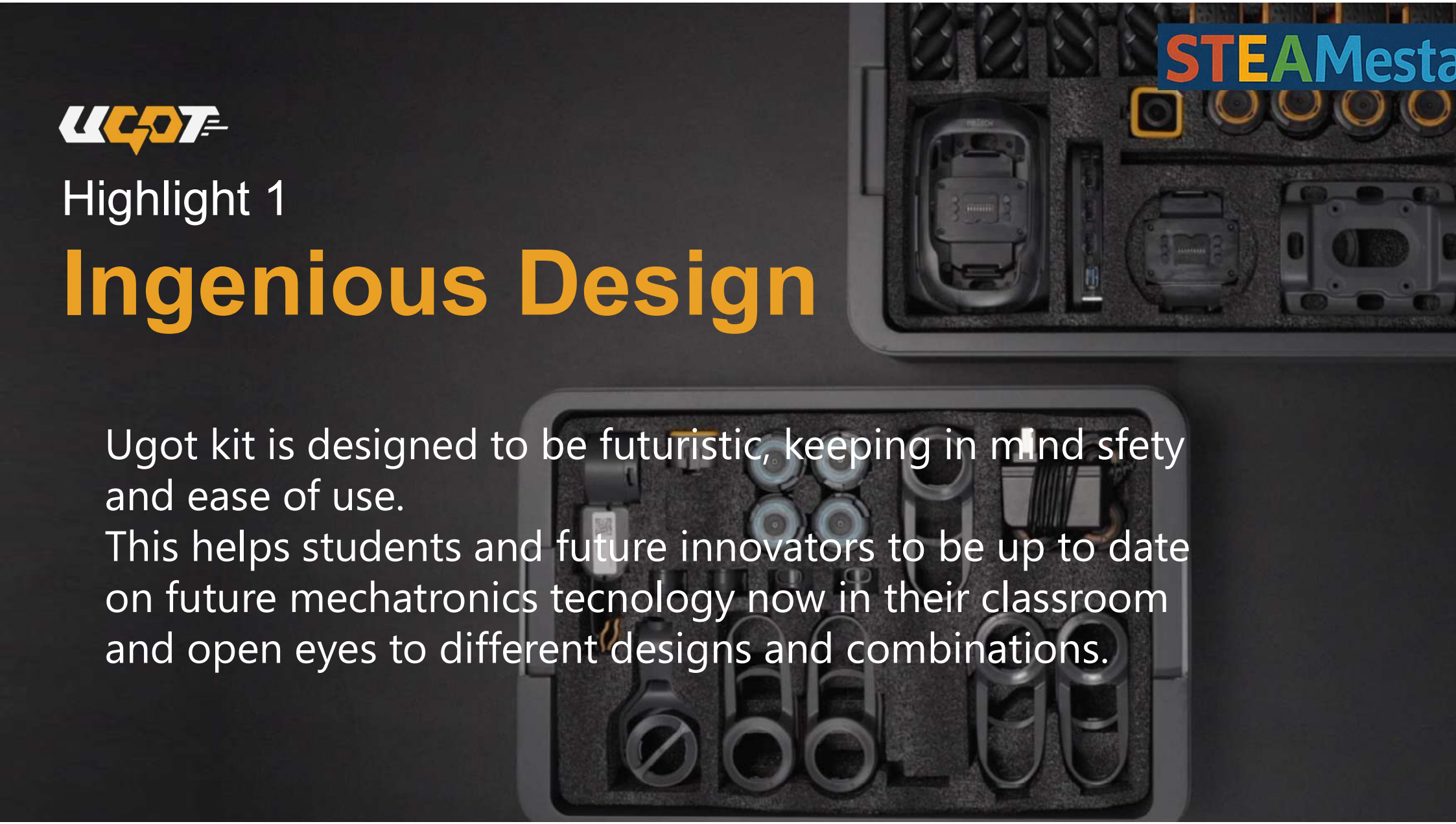

UCOT
GOLD AWARD 2024
STEAMestari
STEAM estar
Build
Code
Innovate
An AI-Powered Robotics Kit That Combines Rapid Assembly, Multi-Form
Intelligence, and Cutting-Edge Tech Fun for Makers and Innovators.



Highlight 1

Ingenious Design

Ugot kit is designed to be futuristic, keeping in mind sfety and ease of use.
This helps students and future innovators to be up to date on future mechatronics tecnology now in their classroom and open eyes to different designs and combinations.

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From Car to Bionic Forms

All in One

Bring tomorrow’s AI forms into today’s classroom

Modular Design

X

Knob lock Design

Transform different forms in 10 minutes

Highlight 2

Powerful AI Capabilities

We present today AI technologies in an easy understandable way, student understand the science behind, code it in the robot and test it in a real work environement. Which foster the student inteligence, strenth his understanding and open mind for limitless creativity.

Strong AI Power

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1 Trillion Ops/Sec,

real-time vision & speech, zero lag for classrooms.

Speech

6+

VAD

ASR

TTS

NLP

360° far-field speech recognition

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Vision

17+

license plate recognition

QR code recognition

traffic sign recognition

facial feature recognition

color recognition

OCR recognition

custom recognition

gesture recognition

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Motion Control

7+

self-balanciong car algorithm

odometry algorithm

robotic arm motion algorithm

quadruped locomotion control algorithm

wheeled-leg locomotion control algorithm

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Embedded AI Motion Control

7+ embedded algorithms enable

strong stability

turning robotics control into student-accessible playgrounds.

self-balancing algorithm

adaptive to complicated terrains

multi-legged gait algorithm

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Motion Control

7+

self-balanciong car algorithm

odometry algorithm

robotic arm motion algorithm

quadruped locomotion control algorithm

wheeled-leg locomotion control algorithm

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UGOT x AIGC LAB:

transforms UGOT into learning partners

Students master large language models (LLMs) and multimodal AI through seamless integration with AIGC LAB.

- free chat -

- ask and answer -

- interpret commands & execute tasks -

Highlight 3

Diverse Software Toolkit

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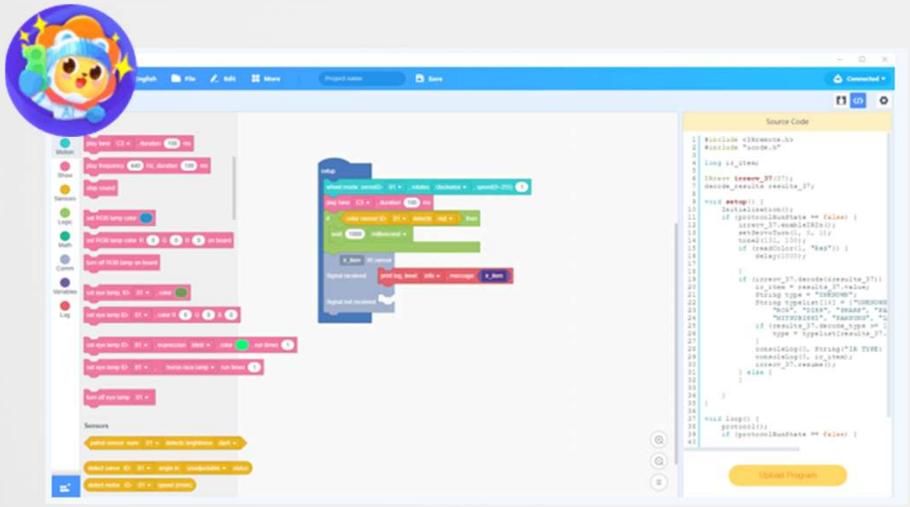
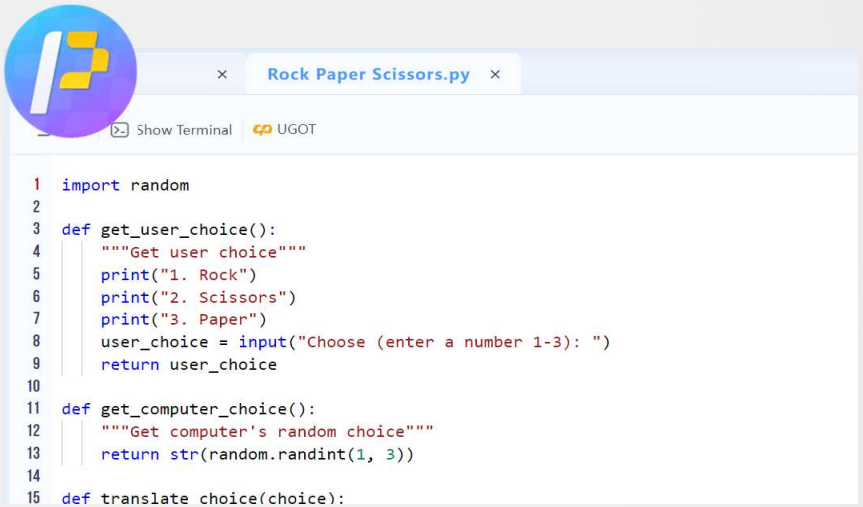
Multi-language programming

from Blockly to Python



uCode
graphical proramming tool



uPthon
Python proramming tool

UGOT APP

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UGOT APP

- FPV Driving -
- LIFE MODE -
- PVP -
- Formation -

4 interaction modes

Learing by playing

Creating by learning

UGOT

UGOT APP

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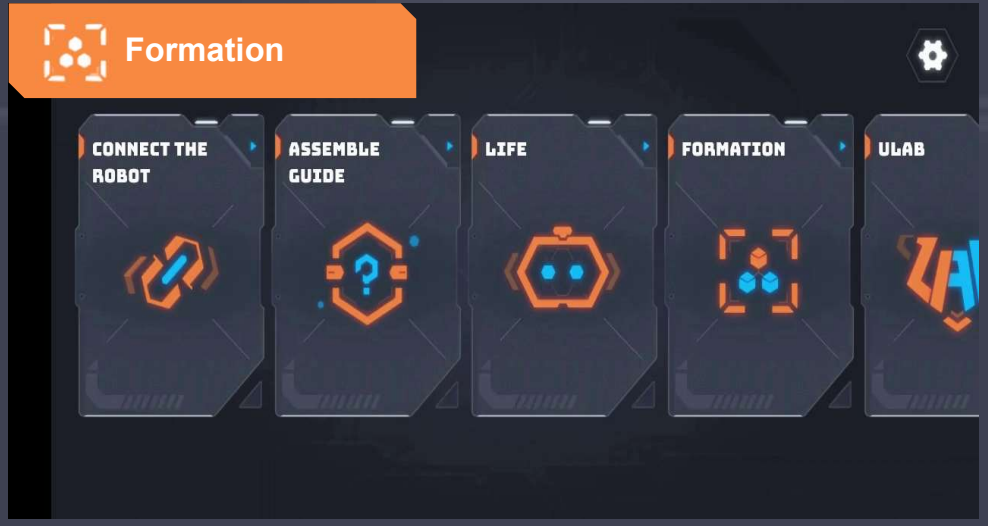
FPV driving mode

Life DIY mode

PVP mode

Formation



Highlight 4

Scientific Curriculum Framework

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Globally Aligned Design Based on International Standards

The UGOT AI Curriculum is carefully designed based on internationally recognized guidelines.

unesco
United Nations Educational, Scientific and Cultural Organization

ISTE
International Society for Technology in Education

NEXT GENERATION SCIENCE STANDARDS

Teaching Process of UGOT AI Curriculum

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1 Introduction

Introduce the thematic story of the unit.

The lesson begins with a story introduction to give students an idea of the focus in this unit.

2 Engagement

Begin this lesson with a story situation.

The teacher introduces the theme of the lesson with a story situation, poses a question, guides students to think about the problem, proposes a solution, and breaks down the task.

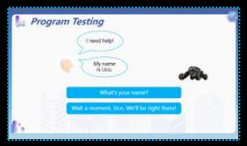
3 Exploration & Explanation I

Learning new knowledge through PBL.

Learn about the lesson through animated videos and teacher explanations, then explore and manipulate the thematic tasks to complete some of the tasks in the lesson.

4 Exploration & Explanation II

Learning new knowledge through PBL.



Continue with the task of completing the disassembly and solving the problems set out in this topic

5 Elaboration

Expanding tasks and knowledge

Teacher-led extension of knowledge and completion of extension tasks.

6 Evaluation

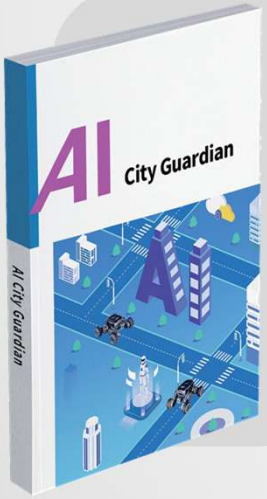
Summary and evaluation

The teacher will lead the students to summarize the knowledge of this lesson in a question and answer format. Students are encouraged to present their own work

Integration of the "5E" teaching model to cultivate students' engineering design thinking.

Facing the future: master AI technologies through real-life scenarios

Students can get the immersive learning experience through the theme-based projects design.



AI City Guardian

- Ruin Rescue
- Searching for People in A Crowd
- Ecological Protection
- Mission Accomplished
- Community Rescue

AI Space Exploration

- Flying Plan
- Lunar Exploration
- Cave Mystery
- Mars Base
- Smooth Return

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AI City Guardian

Recommended for

Primary School/Grade5-6

15 topics | 30 class hours

Curriculum Description

Based on the problems that may be encountered in real life,the course constructs virtual story situations, guides the students to use AI technologies such as intelligent voice and machine vision to realize the various functions of UGOT to help the city to solve a variety of emergency problems and to cultivate students' problem-solving ability and social responsibility.

Human-Computer Interaction

Intelligent Speech

Machine Vision

Information Consciousness

Computational Thinking

Digital Learning and Innovation

Forms

Engineer Vehicle

Mecanum Wheel Car

Self-balancing Car

Transfarming Car

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AI Space Exploration

Recommended for

Middle School/Grade7-8

14 topics | 30 class hours

Curriculum Description

With interstellar exploration as the background, the course integrates science and technology into science fiction story contexts, constructing virtual scenarios such as flight plans, lunar exploration, cave exploration, and Mars base. Through these topics, the course guides students to use intelligent speech, machine vision and other artificial intelligence technologies to realize the functions of UGOT and help scientists to solve various urgent problems encountered in the process of interstellar exploration, and cultivate students' problem-solving ability and sense of social responsibility.

Human-Computer Interaction

Intelligent Speech

Machine Vision

Machine Learning

21st Century Skills

Digital Learning and Innovation

Forms

Wheeled & Legged Robot

Quadruped Robot

Spider Robot

Self-balancing Car

Transforming Car


STEAMestari
Empower Students for Success in an AI-driven Future
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