MagiCube Limited
賢思創科有限公司

Una platform

Having trouble with STEM education ?

Time wasted on lesson prep?
Struggling with materials?
Classroom in chaos?

Revolutionary STEM education

1. The first Multi-functional STEM platform that supports MakeCode and micro:bit

2. In-house designed STEM peripheral

3. Teaching materials written by scholars

4. One-stop teacher training

5. Professional technical support

6. STEM Lab Setup Service

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Effective STEM Platform

Una

Una, which means 'together' in Latin, brings practical collaborative learning into every classroom. Our user-friendly design caters to both veteran and rookie teachers with or without an IT background, hoping to ease teachers' burden in today's ever-changing educational environment. As the first teaching and learning platform specifically designed for STEM education, Una supports Microsoft MakeCode for various STEM hardware such as micro:bit and Raspberry Pi.

Teachers' interface

✓ Classroom Management

✓ Time Saving for planning and lesson

< 3E- Math triangle — School Mode ON

Title: 3E- Math triangle
Course: Grade 3 Maths: Triangle

Scaffold lessons according to each class' needs and progress

Ungrouped	Group 01	Group 02	Group 03	Group 04
	Student 01	Student 02	Student 04	Student 05
	Student 07	Student 10	Student 11	Student 12
	Student 03	Student 17	Student 18	Student 19
	Student 25	Student 23	Student 24	Student 26
	Student 16			Student 29

Progress:

Group 05	Group 06	Group 07
Student 06	Student 08	Student 09
Student 13	Student 14	Student 15
Student 20	Student 21	Student 22
Student 27	Student 28	Student 30

Real-time managing and students' grouping

Class Process — Demo
1 Right triangles
2 Isosceles triangles
3 Equilateral triangles
🔒 Waiting Point ✕
4 Perimeter of triangle
5 Area of triangle 1
6 Area of triangle 2
+ New Waiting Point

Save   Resume

Real-time monitoring of students' performance

Gate-keep students' progress

Students' interface

✓ Support various teaching materials

✓ Interactive learning makes lessons more fun

Task 1: Find the minimum score of each grade
Use variable to store the minimum score of each grade — HELP

Step by step, easy to use

Search... | UserName1 | UserName2 | UserName3 | UserName4 | Us...

- Basic
- Input
- Music
- Led
- Radio
- Loops
- Logic
- Variables
- Math
- Advanced

on start
set gradeA to
set gradeB to
set gradeC to
set gradeE to
set score to

Using pre-loaded code to save time

Variable List

gradeA	85
gradeB	75
gradeC	65
gradeE	50
score	70

Download — **Project Title** 4C Comp: Grade Report — Next >

Ask teahers for help

Group 1
Hello
I need help :(
Thank you Leo :)

Group discussion to share coding

Other important features

- Virtual classroom can group and monitor students
- Real-time automation can minimize mistakes
- Auto-saving reduces problem caused by disconnection

- Save time by using auto-marking system
- Enjoy free teaching materials
- Co-planning and access to all materials uploaded by teachers

MAGI
Search — All Class Project Competition + — School Mode ON

Dr.Leo

Quick Access — + Create Activity

Grade 4 Comp: Looping | PacMan Competiton | Bit:bot project

Sorted by: Title

PacMan Competiton | Microbit Sensor | Grade 4 Comp: Looping | Grade 4 Comp: Function | Bit:bot project

Materials
- Teaching Sessions
- Learning Activity

Administration
- Manage group
- Generate report

Una

YUEN Wai Lam
School Magi School
Class: 4C

Notice: Mr. Franklin is assembling for Grade 4 Comp: Function. — Go now

New
Grade 4 Comp: Looping

Recent Open
Grade 4 Maths: Rectangle | Grade 4 Comp: Music Car Project | Grade 4 Comp: Bit:Bot Car

Due within 3 day
2018-10-18
Grade 4 Maths: Rectangle

- Course
- Assignment
- Project
- Log out
- School Mode ON

It's so boring to keep using the same materials!

It's not easy to keep lessons meaningful and fun...

Una board nurtures unlimited designs and ideas!

Developed by our own R&D team, Una board is designed to cultivate students' computational concepts in and outside classrooms. The maze can be remodeled into various sizes and shapes according to the objectives of the lesson and the learning needs of the students, bringing the virtual world into reality.

Hardware

Una board

- Includes floors, walls, bridges and tunnels
- The maze is expandable and solid
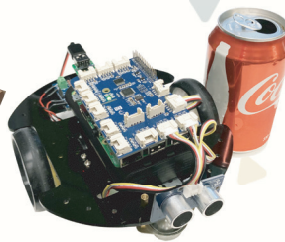
DIY Cars

- Supported by portable charger, DIY cars can be used throughout the day
- Can add different sensors on it

Color Lighting board

- Equiped with programmable lighting
- Supports multiple computational thinking trainings and games

Advantages

Countless possibilities

- The maze and sensors can be freely further expanded, giving no limitation to the design of teaching material

Cost-effective

- We employ currently available products and accessories in the market, such as micro:bit, Raspberry Pi, portable chargers, etc

Connect to Una Plaform

- Saves time on lesson preparation: Select free teaching materials; teach with the same User Interface as MakeCode
- Save time on teaching: Make use of the virtual classrooms; upload the programmes in advance and auto-marking
- Effective teaching: Make use of various pedagogies; scaffold explanations and data analysis
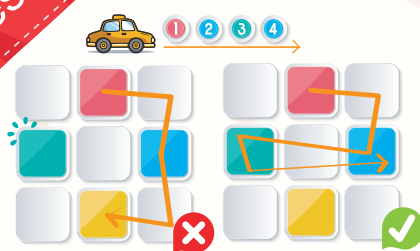- Elevate your teaching: Upload self-made materials and improve existing Una board lesson plans

EDB recommended

Computational thinking

- Basic programing, including branching, loop, variable, random, etc
- Interact with DIY cars or other sensors
- Problem solving by Algorithm
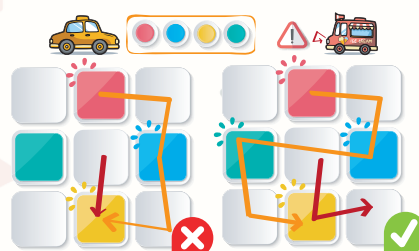- Decomposition & Abstraction, to understand abstract concept

Modes

Training Mode

The car travels to the color plates according to the programmed sequence.

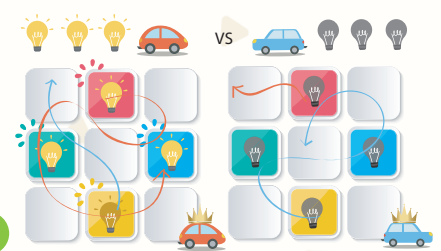For example, the car should get: Red --> Blue --> Green --> Blue through the tunnel in order to complete the task

Gaming Mode *developing*

Students are to follow a specific set of rules in order to control the car and complete the task.
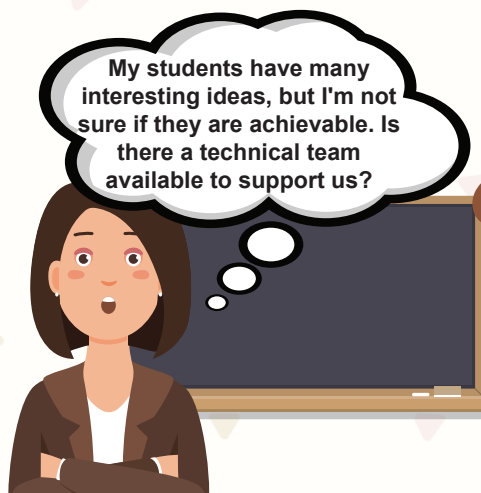
For example, students have to get to all coloured plates and turn off the lights by avoiding movable traps
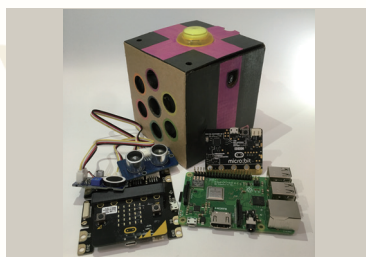
Battle Mode *developing*

Multiple programmed cars carrying out various tasks

The sun car battles the moon car with the former aiming to turn on all the lights while the latter aims for the opposite

My students have many interesting ideas, but I'm not sure if they are achievable. Is there a technical team available to support us?

MagiCube Team

We can offer the following services to help you!

Purchasing suitable hardware and programming drivers

We can provide options, purchase, test and update the processors and hardware based on individual school's needs. We can also write the relevant programming drivers for the hardware of your choice, allowing students to learn programming step by step, thus realizing students' and teachers' creative ideas.


Tailor-made STEM teaching materials

We can tailor-make materials suitable for students' capability and pace. The lesson plans and materials are designed by Dr. Yeung, who has years of experience in teaching computational thinking, together with his professional programming team. The materials cater to various STEM subjects to facilitate the implementation of STEM education without the need to spare extra time out of the already-tight teaching schedule and timetable.

Teacher and student training

We can arrange seminars and workshops at schools on the use of new technologies, provide technical support, share effective STEM pedagogy with teachers and introduce different STEM hardware to both teachers and students.

Professional Team
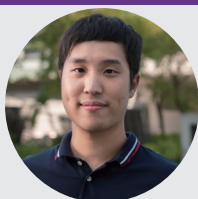
Dr. Yeung Cheuk Yu, Leo
Managing Director & Founder
Adjunct Assistant Professor in
Department of Computer Science, HKU

Dr. S.M. Yiu
Pedagogical and Technological Advisors
Associate Professor in Department of
Computer Science, HKU

Choose Us

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Founded in 2017, MagiCube Limited aims to open a whole new perspective of teaching and learning using state-of-the-art education technologies. Through our innovative online educational platform, our users would be able to enjoy unique learning experiences and feel confident in adapting to the digitized society in the 21st century.

Una

MagiCube understands the difficulties of frontline teachers, particularly the need to keep up-to-date regarding the ever changing new developments of STEM education. Therefore, MagiCube provides a one-stop economical and efficient platform for schools to carry out STEM education. Una is developed by a group of experienced educators and programmers, aiming to help schools build the necessary foundation to start a comprehensive STEM education plan.

We are experienced in aiding schools to apply for the establishment of a STEM Lab. If you are interested in our service, or should you have any enquiries, please do not hesitate to contact us!

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