

Improve the quality of vocational (Monozukuri or manufacturing) education in Egypt and Japan and promote mutual understanding

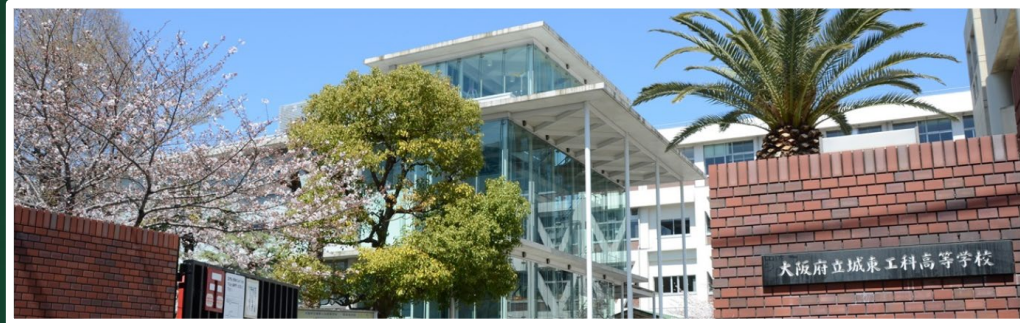
Osaka Prefectural
Jyoto Technology High School
Hitoshi Tanabe, Teacher

Tuesday, March 4, 2025

Nitchoku
(daily coordinator)



Osaka Prefectural Jyoto Technology High School



- Established in 1929
- Graduates: Over 28,000
 - Tadao Ando, architect
 - Akio Tanii, 4th president of Panasonic Corporation

- Courses in place
 - Mechanical (2 classes)
 - Electrical (2 classes)
 - Mechatronics (1 class)
- A technical high school focused on regional industry collaboration, promoting corporate partnerships and incorporating hands-on production training to develop practical workplace leaders

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学科・コースの紹介



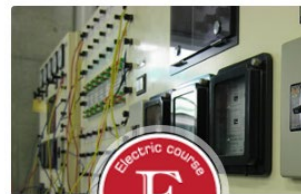
機械系

機械設計・製図から機械加工・組立まで、ものづくりに必要な知識、技術・技能を学びます。➡



メカトロニクス系

機械・電子・情報の技術が融合したメカトロニクスについて学習します。➡



電気系

電気技術の基礎からコンピュータネットワークまでを学ぶ。➡

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Today's Presentation Topics

1. Background of the exchange
2. About lesson improvement
3. International exchange between students
4. Summary

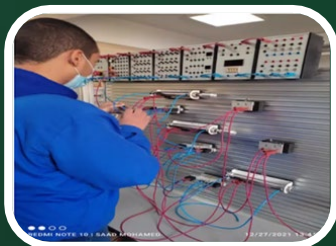
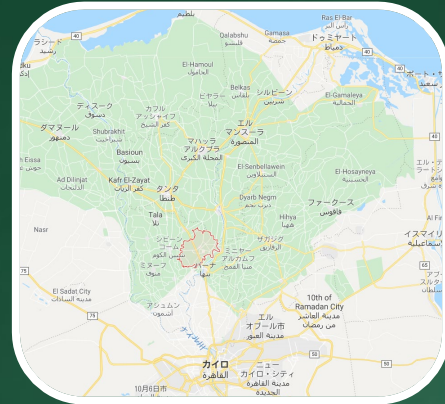
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1. Background of the Exchange

El-Araby Secondary School



- Established in 2018
- Graduates: About 500
- Courses in place
 - Mechanical engineering (2 classes)
 - Electrical engineering (2 classes)
 - Air-conditioning technology (2 classes)

Newly introduced in 2023

- Logistics (1 class)
- The school is jointly operated by the private sector and the national government. Students learn practical skills while working at an adjacent factory two days a week. Graduates go on to work at the factory.

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Requests from Egypt

Curriculum content

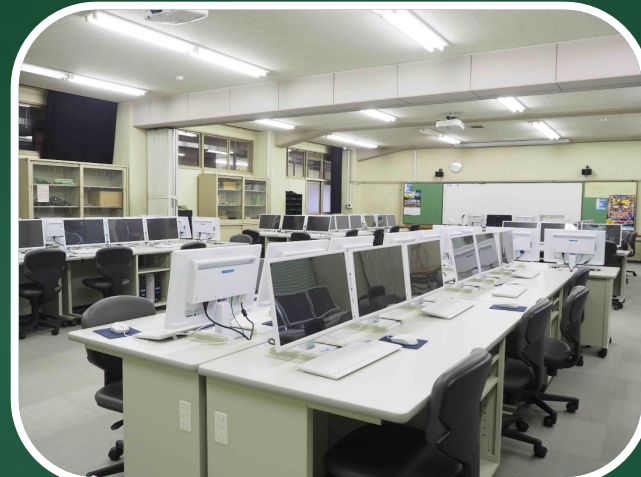
Hands-on training equipment

Evaluation method

令和2年度教育課程（深化）
大阪府立械工科高等学校

学年	科目	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2年	機械技術	国語総合	現代社会	数学II	物理基礎	体育	保健	英語表現I	家庭基礎	機械技術実習	機械製図	技術	※生産システム	※機械工作	機械設計	LHR	△CT															
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	機械技術	現代文A	数学II	世界史A	体育	選択	課題研究	機械技術実習	機械製図	環境工学基礎	機械設計	原動機	※電子機械	LHR	△CT																	
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※ 接続（理工系大学進学）は、別科目（数学A、英語演習 等）を履修 △ チャレンジタイム（インターンシップ）は、自由選択



Requests from Japan

Interaction between students



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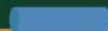
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2. About Lesson Improvement

Initiatives
in 2023

April
Prior discussion
Timetable preparation
Instruction manual for hands-on training
Hands-on training equipment
Evaluation criteria

June
Materials shared
From Japan
Instruction manual
Lesson plans
Syllabus
From Egypt
Lesson plans

October
Opinion exchange meeting



Hands-on training equipment in Egypt



Instruction manual for hands-on MCU control training

إطار الجولات الخاصة بـ:

التدريب الأول

الفترة: 2023/04/01 - 2023/04/05

الهدف: تقييم الأداء التعليمي والعملي للطلاب المشاركين في البرنامج التدريبي.

الاسم	الدرجة	ملاحظات
أحمد محمد	85%	أداء جيد، فهم عميق للمفاهيم.
سارة أحمد	78%	أداء متوسط، تحتاج إلى مزيد من الممارسة.
محمد علي	92%	أداء ممتاز، مهارات تحليلية عالية.

Evaluation criteria in Egypt

項目	評価基準	達成状況
基礎知識の理解	授業内容の理解が深い。	達成
実践力の発揮	課題を自主的に解決できる。	達成
チームワーク	グループで協力して作業できる。	達成
発表力	自分の考えを明確に発表できる。	達成

Evaluation criteria in Japan

November
Students' interaction

February
Review
Desire to observe classroom lessons

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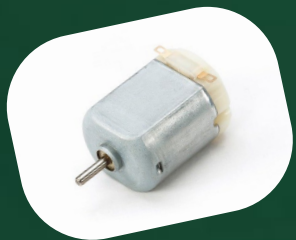
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Study on Method of Evaluating Learning Outcomes — Japanese Approach from Three Perspectives

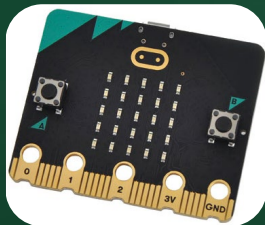
Knowledge and skills

Assess whether basic knowledge and skills have been acquired



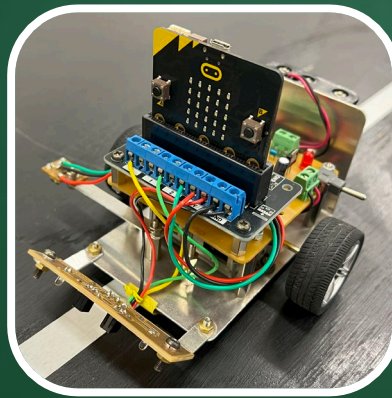
Forward rotation, reverse rotation, braking, etc.

Programs, systems



Thinking, judgment and expression

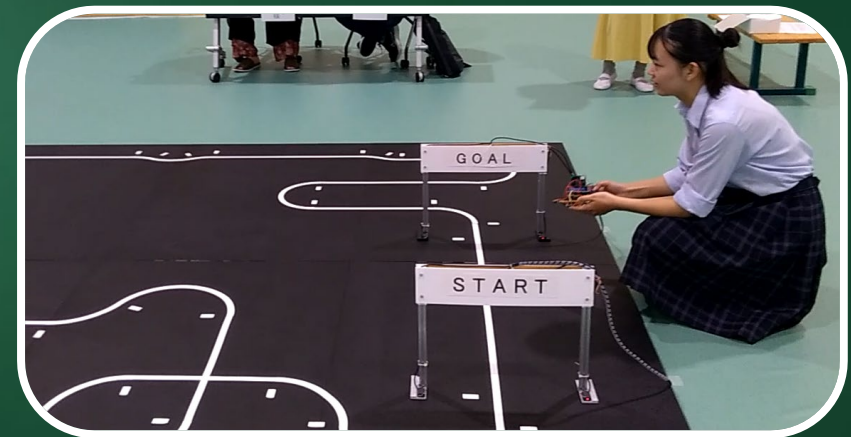
Assess the ability to formulate one's own ideas using basic knowledge and skills, evaluate information, and express thought



Forward, backward, rotation
Judgment by sensor

Attitude toward active learning

Assess whether efforts are being made to acquire knowledge and skills, as well as to develop thinking, judging and expressive abilities



Running faster, more steadily

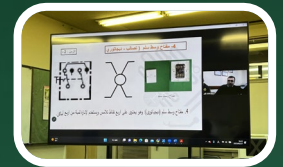
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2. About Lesson Improvement

Initiatives in 2023



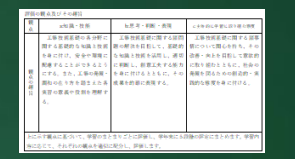
Hands-on training equipment in Egypt



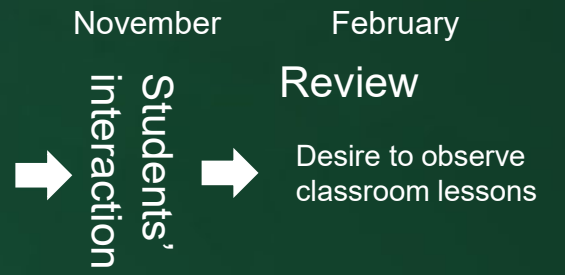
Instruction manual for hands-on MCU control training



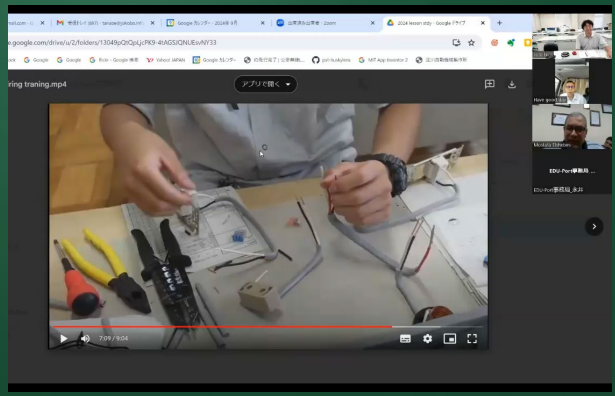
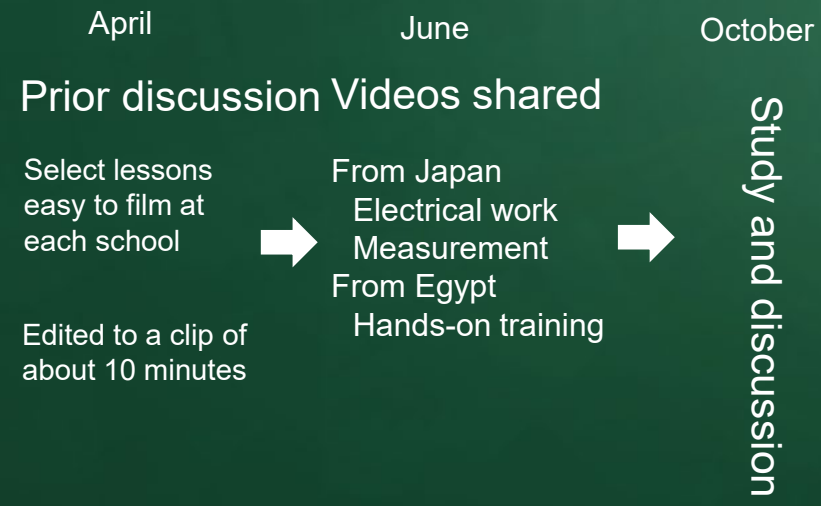
Evaluation criteria in Egypt



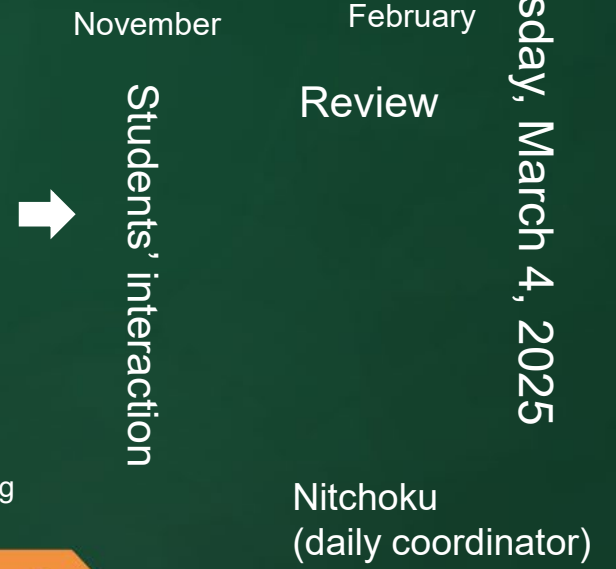
Evaluation criteria in Japan



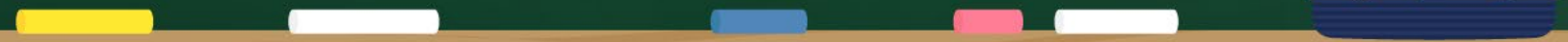
Initiatives in 2024



- Observations by the Egyptian side:
- Tools are handled with care
 - Each step is carefully checked while working
 - Well-organized and tidy



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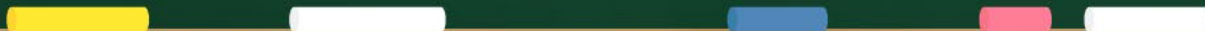


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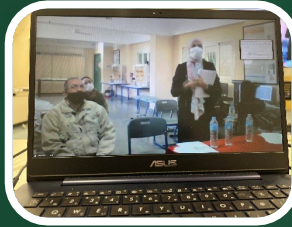


3. International Exchange between Students

2023

April

Prior meeting



September

Final meeting



October

Pre-exchange learning
"About Egypt"



November

Student exchange



2024

April

Prior meeting



June

Pre-exchange learning
"Japan from a global perspective"



September

Final meeting



Early November

Pre-exchange learning
"Charms of Egypt"



Late November

Student exchange

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3. International Exchange between Students

Line tracers



Automatic water dispenser



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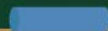
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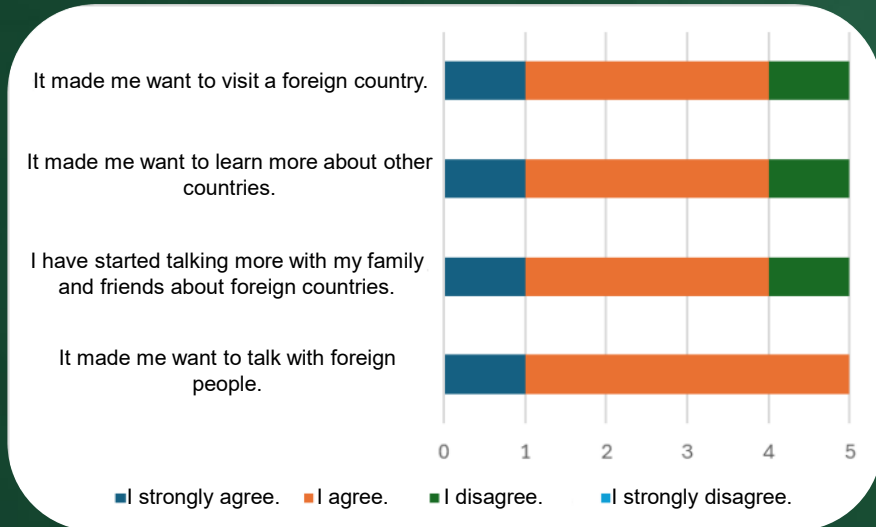
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4. Summary

Japanese side

Results of 2023 questionnaire



Student voices

I rarely have the opportunity to interact with Egyptian students, so I felt this was a very valuable experience. The students were kind, and some even waved at us, so I'm glad we had the opportunity for an online exchange.

This was my first time participating in an online exchange, and I felt that the Egyptian students were kind and had a strong sense of pride. Although I was a bit nervous, I'm glad I went through with it.

I'm glad they were interested in our works as they observed them and asked many questions. We also had the opportunity to see the machinery from El-Araby Secondary School as well. Since both are practical, I thought it would be interesting if we could incorporate them into our school.

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Summary

Egyptian side

In promoting Japanese-style education, I was able to understand the philosophy of Japan's manufacturing education.

I was able to learn about hands-on training equipment and teaching methods in Japan.

Student voices

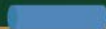
I need programming skills

I understand the importance of learning

I have started considering further education

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Future Outlook

We hope to continue this exchange for as long as possible.

We would love for students to have the opportunity to visit each other's schools.

Thank you for your attention today.

Tuesday, March 4, 2025

Nitchoku
(daily coordinator)

