



Knox Innovation Opportunity Sustainability Centre



2016 ADB International Skills Forum
Innovative Practices in Skills Development

19–21 September 2016 • ADB Headquarters, Manila, Philippines

Why was KIOSC established?

Industry:
skills shortage
in technical
occupations



Students:
leaving school
underqualified
for job
opportunities



KIOSC

**Connecting
students to
their futures**



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What do students do at KIOSC?

Innovation

- Apply new technologies
- Learn about emerging technologies
- Engage in authentic problem-solving and design activities

Opportunity

- Develop employability skills
- Learn about careers, pathways, qualifications
- Have opportunities to work in industry or on industry problems

Sustainability

- Explore renewable energy
- Learn responsible use of resources
- Become aware of global issues



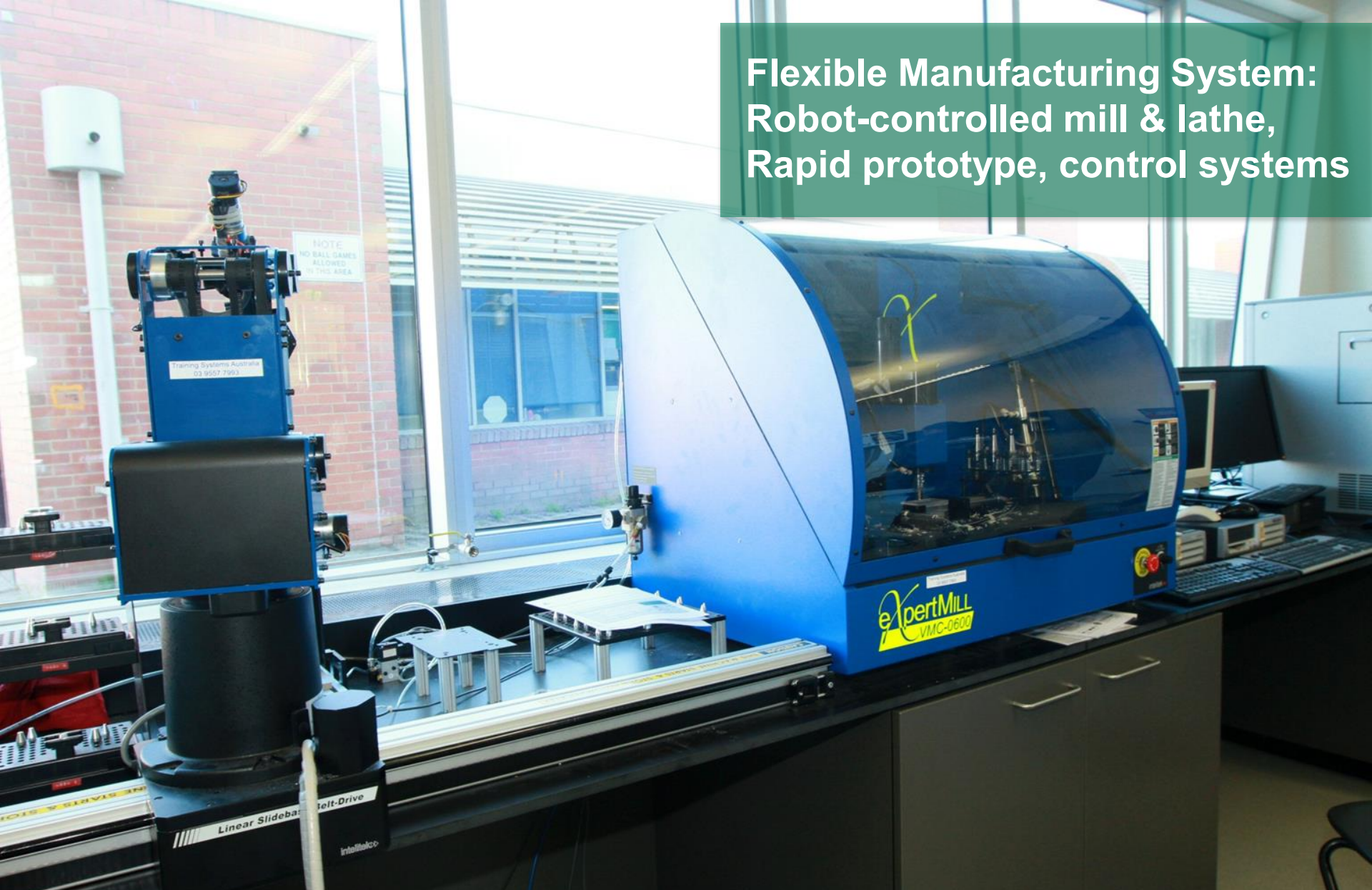
Equipment chosen to match local needs

In our case:

- advanced manufacturing
- electrical services
- laboratory skills
- design and printing
- health services.



Flexible Manufacturing System: Robot-controlled mill & lathe, Rapid prototype, control systems

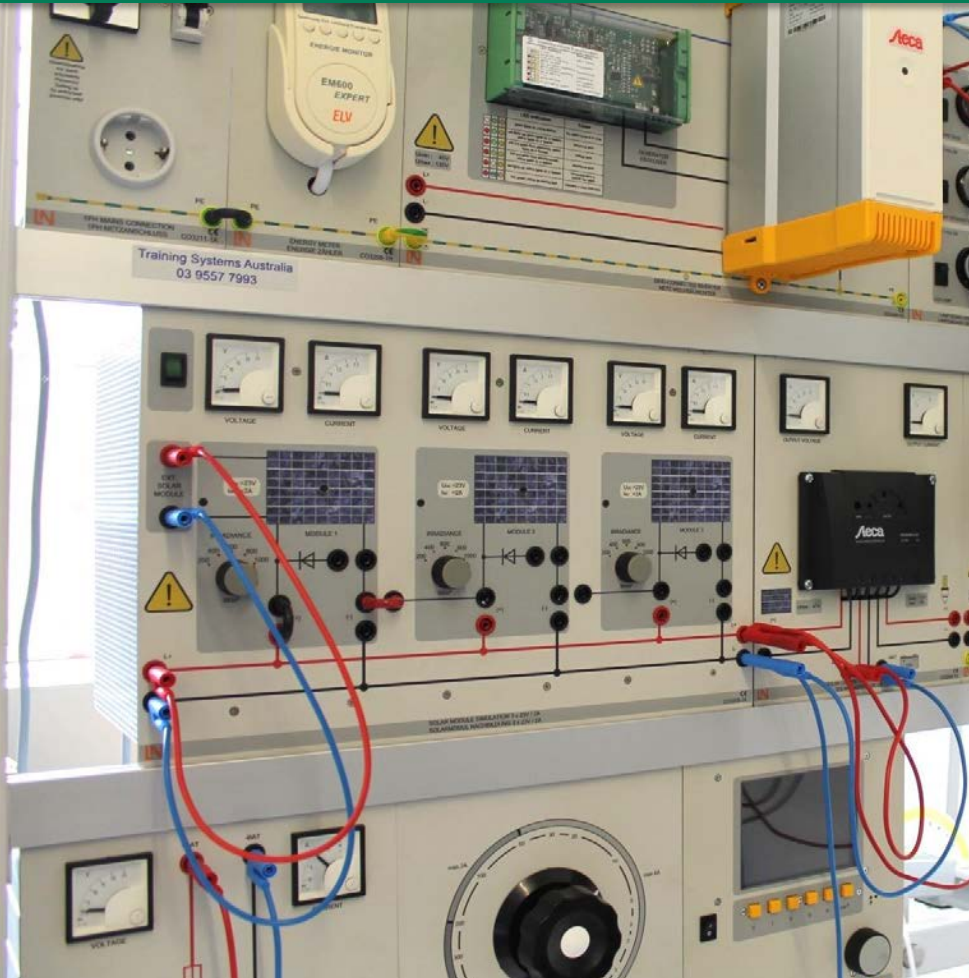


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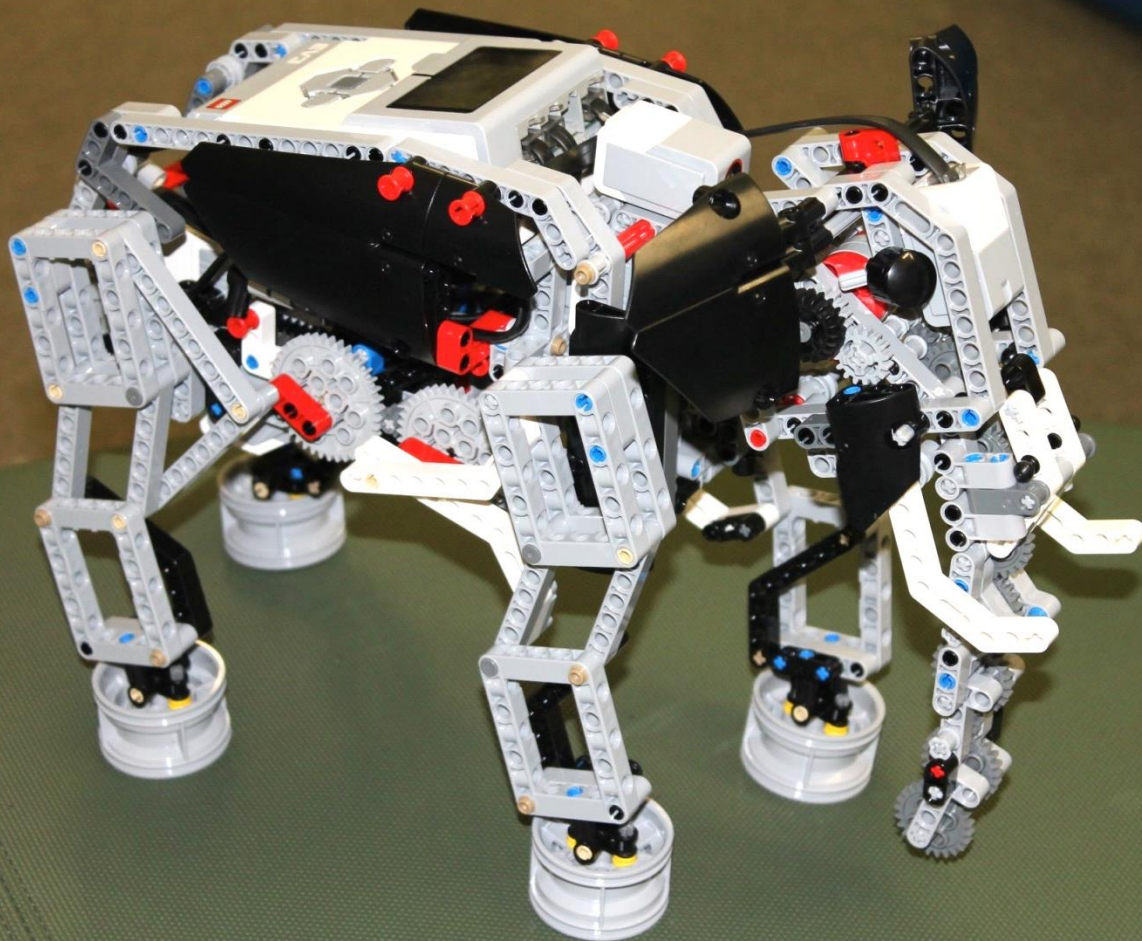
Renewable energy training equipment, production control systems



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US\$60,000 robotics equipment, including LEGO Mindstorms, VEX, NAO humanoid robots...

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Flexible Manufacturing System: Robot-controlled mill & lathe, Rapid prototype, control systems



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State-of-the-art laboratory for Chemistry,
Biology, Environmental Science
Half a million dollars worth of equipment,
including AAS, HPLC, GC,
electrophoresis equipment...



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Trade training equipment
for electrotechnology,
engineering fabrication,
construction, horticulture...

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**Banks of computers and
3D printers for designing
and making**



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What makes KIOSC different?

- All students have opportunity to work with latest equipment in modern environment
- They attend programs 2-3 times each year (8000-10000 student visits each year)
- Attending KIOSC programs is built into school curriculum



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What is the outcome?

- Improvement in student knowledge, skills and aspirations towards qualifications and careers in growth and new industries
- Greater interest from industry in supporting education

