



[STEM.org.my](https://www.stem.org.my)

# TM FutureSkills STEM Certification

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*Comprehensive industry backed  
certification offered together with  
partner schools worldwide*

# Highlights

Certification + Competition

TM FutureSkills Training & Certification



Certification program by  
Telekom Malaysia managed by  
Creative Minds

MakeX Robotic Competition



National/International Competition by  
MakeBlock Inc. organized by  
Creative Minds (regional)

# What is Future Skills?

*Earn an industry-recognized credential*

TM Future Skills validates student Science, Technology, Engineering and Maths (STEM) expertise to help students K-12 **highlight in-demand skills** and **develop their interest** in Science and Math subjects. Diverse certification program by discipline and specialty designed to empower students to meet their unique goals



## Info

Telekom Malaysia Berhad (TM) launched TM FutureSkills STEM program since 2016 but not available for public enrollment until 2020.



# Program Rationale



## Students' Interest

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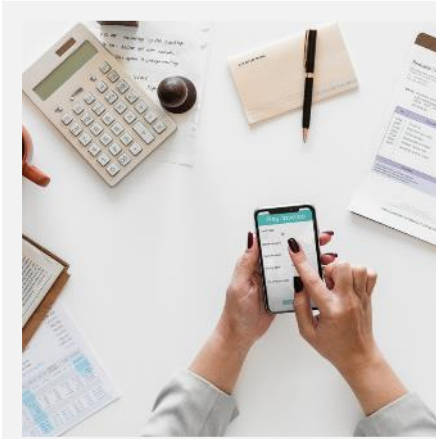
To increase student interest to pursue Technology & Engineering subjects



## Theory vs Practical

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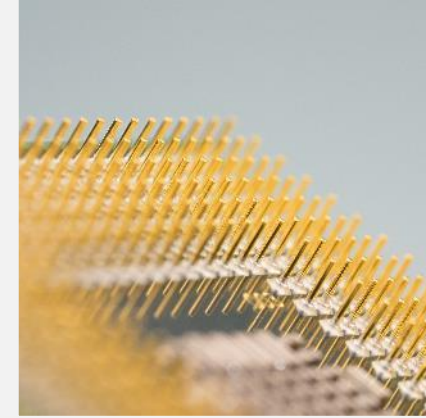
Relating students' practical work with theory from classroom learning



## Hands-On Concept

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Working on hands-on concept work related to technology and engineering studies



## Technology

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Applying latest and up-to-date open-source technology in every day classroom



## Tracking on STEM

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We offer STEM certification tracking and database for quality and follow up programs

# SCHOOL LIST (2018 – 2020)

## Kuala Lumpur

SK Bandar Damansara Utama 4  
 SK Bandar Banting  
 SK Jenderam Hilir,  
 SK Pandan Jaya  
 SK Polis Depot  
 SK Cyberjaya  
 SK Sungai Binjai,  
 SK Sungai Merab Luar  
 SK Taman Midah 2  
 SMK Sultan Abdul Aziz Shah (Interg.)  
 SK Seri Setia  
 SMK Ampang Pecah  
 SMK Munshi Abdullah  
 SMK Pengkalan Permatang  
 SMK Jeram  
 SMK Pulau Indah  
 SK Kampung Batu  
 SK La Salle 1  
 SAM Bagan Terap  
 SMK Kiaramas  
 SMK Sri Hartamas  
 SMK Vivekananda

## Negeri Sembilan

SK Si Rusa  
 SK Teriang  
 SK Senawang  
 SK Pusat Juasseh  
 SMK Juasseh  
 SK St. Aidan

## Perak

SMK Chenderiang  
 SK Seri Kepayang  
 SMK Tambun  
 SABK Maahad Al-Ehya AsShariff  
 SJKT Mahatma Gandhi Kalasai

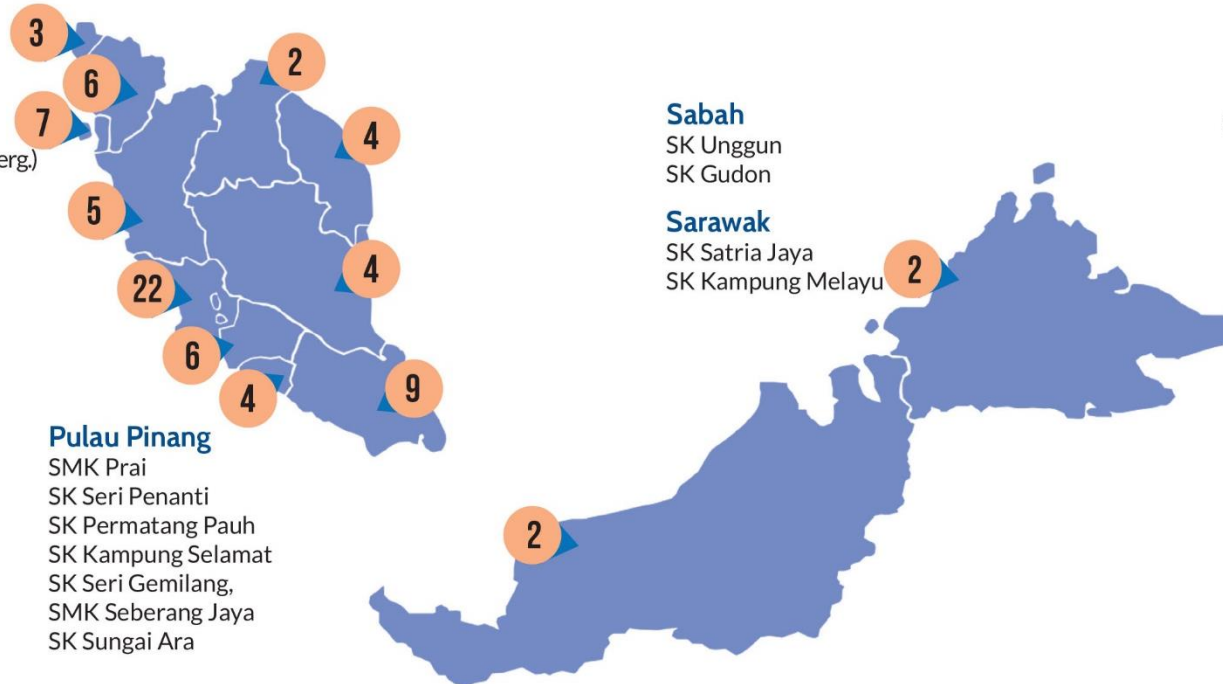
## Pulau Pinang

SMK Prai  
 SK Seri Penanti  
 SK Permatang Pauh  
 SK Kampung Selamat  
 SK Seri Gemilang,  
 SMK Seberang Jaya  
 SK Sungai Ara

## Kedah

SK Taman Ria  
 SK Tembak  
 SMKA Baling  
 SMK Kota Kuala Muda  
 SK Ulu Sedaka  
 SK Dato Wan Mohd Seman

*School management will receive token of appreciation upon school level enrollment program*



## Sabah

SK Unggun  
 SK Gudon

## Sarawak

SK Satria Jaya  
 SK Kampung Melayu

## Perlis

SK Abi  
 SMK Dato' Jaafar Hassan  
 SMK Arau

## Melaka

SK Pantai Kundor  
 SK Tanjung Minyak  
 SK Padang Temu, Padang Temu  
 SK Chabau

## Johor

SK Kampong Pasir, Skudai  
 SK Taman Bukit Tiram, J. Bahru  
 SK Tanjung Puteri  
 SMK Sungai Tiram  
 SK LKTP Bukit Batu, Kulai  
 SK Taman Molek  
 SK Kota Masai 2  
 SJKC Ming Terk  
 SK Parit Bilal

## Kelantan

SMK Kuala Balah  
 SK Tualang Tinggi

## Terengganu

SK Pengkalan Berangan  
 SK Kebor Besar  
 SK Paka 3  
 SMK Ibrahim Fikri

## Pahang

SK Tanjung Batu  
 SK Cherating  
 SK Merting  
 SMK Orang Kaya Haji

Since 2018,  
 more than  
**80 schools**  
 (and counting...)  
 participate in  
 TM FutureSkills  
 program under  
 Ministry of  
 Education  
 purview



# Certification Program

TM FutureSkills give an **education advantage** by providing **national recognized** and **industry-endorsed** evidence of mastering skills in a digital and technology knowledge.

TM Group Youtube: <https://www.youtube.com/watch?v=PNm537-BtVU>



TM FutureSkills is endorsed by



Jointly collaborate with



Certification will be signed by Chairman of TM, Tan Sri Mohd Bakke Salleh





## Enrollment

TM FutureSkills mission statement is to **enrich and increase students' interest** in STEM which lead to STEM enrolments inline with Malaysia's national education policy.

### Age

*10 – 12 years old / 12 – 15 years old*

This program is suitable for age 10 years above. It is recommended to split into two groups above to accommodate larger groups

### Medium

*On-site classroom / Virtual Learning*

This program can be run in both on-site or virtual session

### Requirement

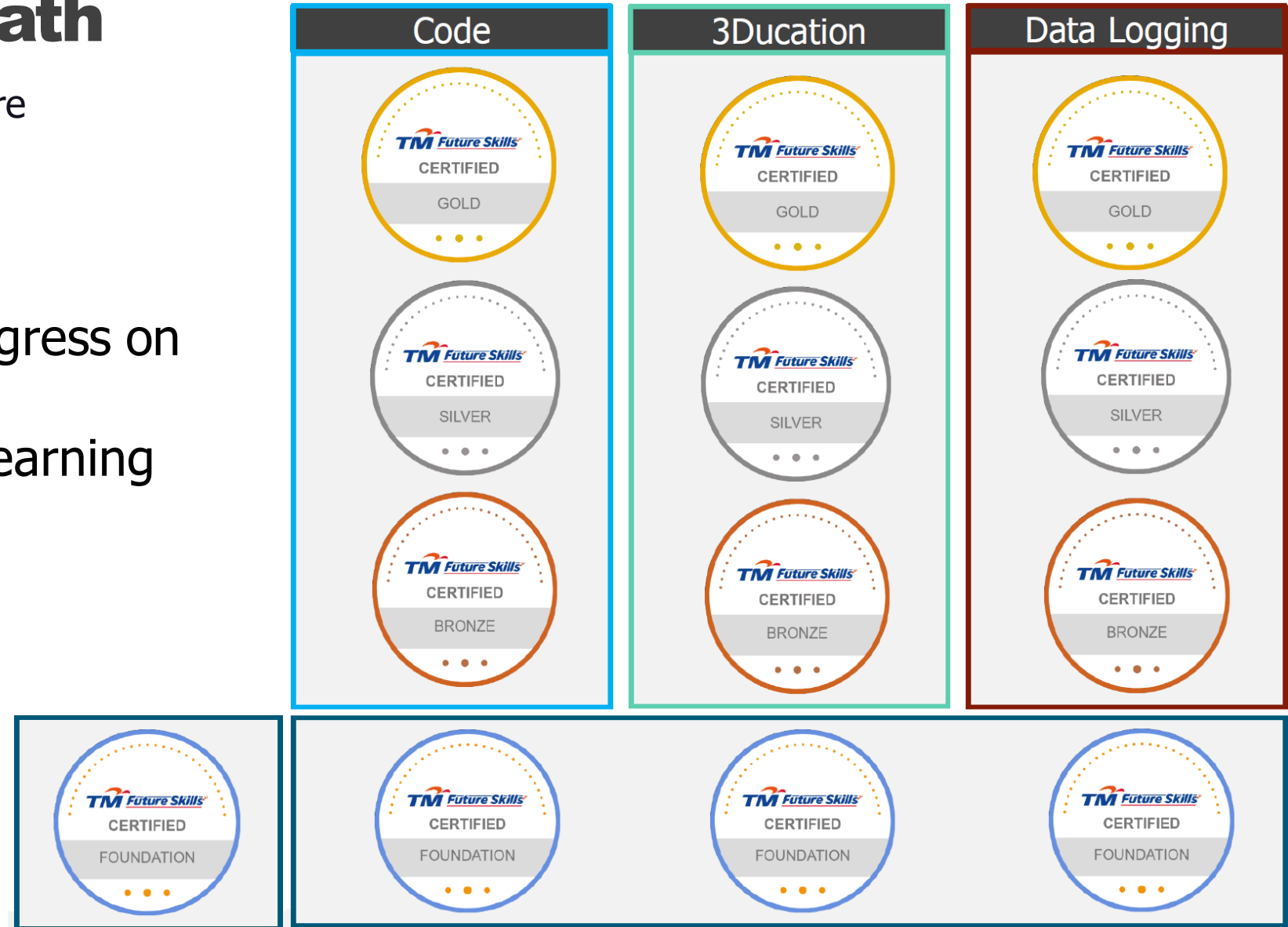
*Complete all the required task*

To complete the certification process, all participants are required to complete all the required task given during the workshop

# Certification Path

How will we scale in the future

Digital Badge as Progress on  
the 3 STEM Pillars Learning





# What's Next?

How to proceed with TM FutureSkills

## PLANNING

First step...



**Confirm date & Set promotion**



**Fee collection by school**

## EXECUTION

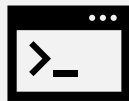
During workshop...



**Workshop with Students**



**Hands On task/assignment**



**Assessment**

## POST EVENT

After events...



**Report to schools**



**Certification to students**

## COMPETITION

Open for all



**MakeX Spark**

Online  
Competition

# Robotic Certification



**Certification Cost = RM 150/person**

Corporate Social Responsibility Program

**80%**

**Cost is RM30/ person**

## Incentive to Schools

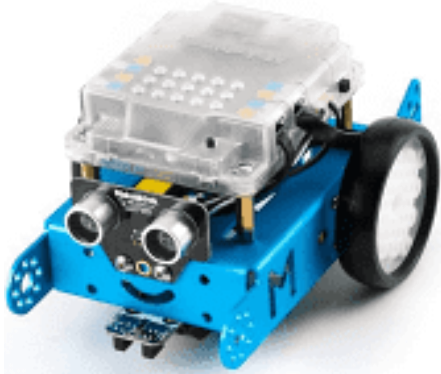


### Number of Students and Robotic Set to School

250 students = 1 robotic set

500 students = 2 robotic sets

# mBOT Purchase



**mBOT Core Set = MYR 475/unit**

## mBOT Robotic Set

makeblock

mBot is a low cost, easy-to-run robot kit for kids to get hands-on experience about graphical programming, electronics, robotics. It is an all-in-one solution for robotics learning and designed for STEM education.



# STEM Certifications



**Certification Cost = RM 150/person**

Corporate Social Responsibility Program

**80%**

**Cost is RM30/ person**

## Incentive to Students

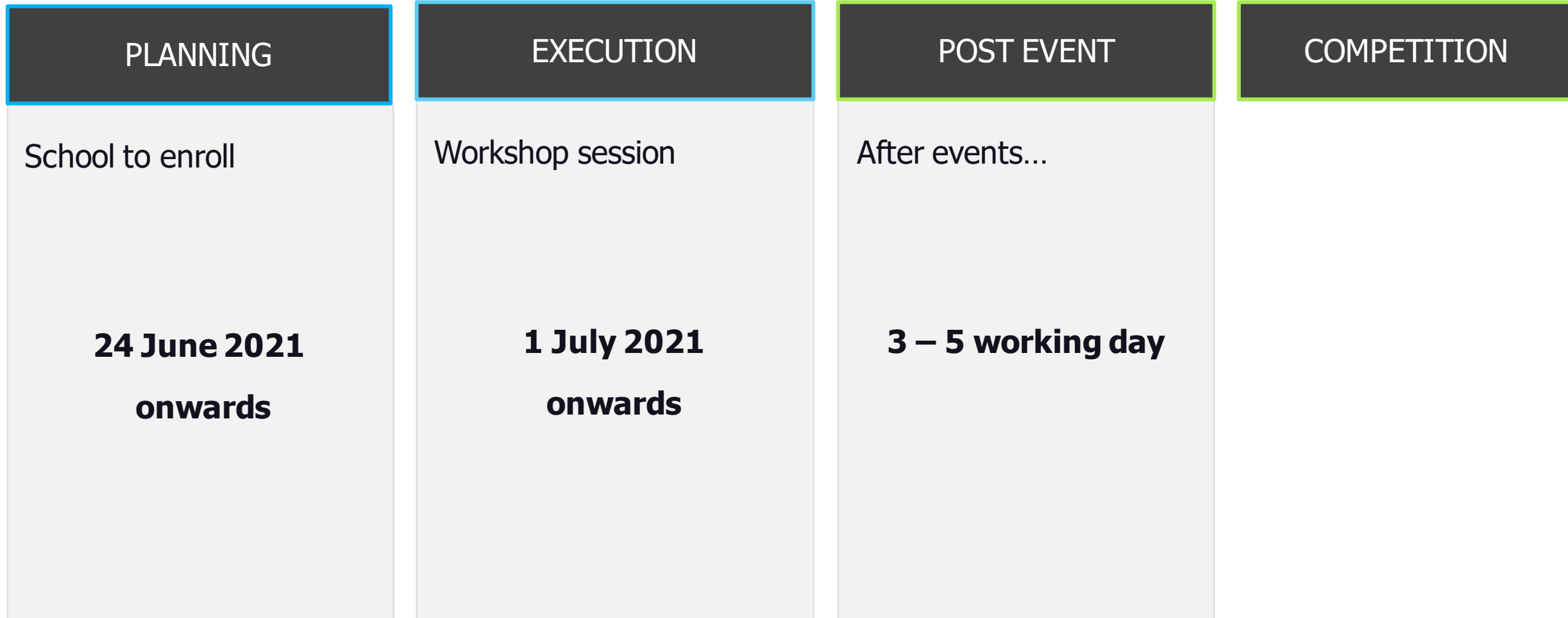
Training in Robotic + Training in 3D Printing

**Robotic Certification = RM 30**

**Two Certifications = RM 50**

# What's Next?

How to proceed with TM FutureSkills



- As we grow, certification is getting more critical to **ensure students are up to date** with technological changes in line with their education progress
- This program offer industry-driven program together endorsed by Pusat STEM Negara to ensure Malaysia students keep track and pursue their interest in Science and Maths.
- The school role is vital to ensure this beneficial program reach students effectively and keep them competitive



## Summary

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Get your students the competitive advantage