HS STEAM Program: Robotics Class Curriculum

Introduction

Learning objectives

Schedules

Timeline	Action	Deliverable
1st Quarter	Module I: Intro to Coding	D#1: End of module individual project
2nd Quarter	Module II: Intro to 3D Modeling	D#2: End of module individual project
3rd Quarter	Module II: Intro to Circuit/Arduino	D#3: End of module individual project
4th Quarter	Module VI: Final project	D#4: Team Project Demo at STEAM Exhibition (Internal) If possible, set the theme of WRO future innovator as the final project
Summer break	STEAM-Edu Bootcamp	Offer 1-2 days workshop about Coding, 3D modeling, and Circuit Promote the STEAM program Generate revenue for HS
August	Join WRO (National Round)	Submit the final project
December	Join Cambodia STEM Festival	Showcase student work Promote the STEAM program

Evaluation method/rubrics

Class work
- Engagement
- Effort
- Understanding

Project
- Understanding
- Effort
- Creativity

Incentives for students

- Best Coding Award:
- Best 3D Modeling Award:
- Best Circuit Award:
- Best Final Project Award:

Teaching resources

Coding
- VEXcode VR
- CodeHS

3D Modeling/3D Printing
- Tinkercad 3D/Codeblock
- Thingiverse

Circuit/Arduino
- Tinkercad Circuit
- CodeHS

Others skills
- Website/blog creation

Facilities (STEAM Lab)

Electronics/Soldering Area

3D Printing Area

Tools Area

Working Area

Teaching/PD Tools

Learning Management System
- Code HS
- Tinkercad classroom

Marketing Strategy

Facebook post: monthly activities, pictures with student

References