

2022-2023 Spring Semester Maker Class Syllabus IP8A

International Department Hsinchu Campus

Week	Date	Chapter / Activity	Lesson
1	02/13-02/18 02/13 First Day of Semester 02/18 Make up for 02/27	Introduction TinkerCAD: 3D Design – Step-by-Step Lesson	Welcome and Course Overview Lesson 1: Learning the Moves Lesson 2: Camera Controls Lesson 3: Creating Holes Lesson 4: Scale, Copy, and Paste
2	02/20-02/24	TinkerCAD: 3D Design – Exercises	Exercise 1: Luggage Tag Exercise 2: Roman Dome with Columns
<u>3</u>	02/27-03/03 02/27-02/28 Peace Memorial Day 03/04 PTC	TinkerCAD: 3D Design – Exercises	Exercise 1: Luggage Tag Exercise 2: Roman Dome with Columns
4	03/06-03/10	Project: 3D Design + Laser Cutting – TinkerCAD	Step A1: Make 3D Models of the Board Base Step A2: Make 3D Models of the Board Walls
5	03/13-03/17	Project: 3D Design + Laser Cutting – Adobe Illustrator	Step A3: Choose a Robot Template Step A4: Edit the Robot Template
6	03/20-03/25 03/25 Make up for 04/03	Project: 3D Design + Laser Cutting – Adobe Illustrator	Step A3: Choose a Robot Template Step A4: Edit the Robot Template
7	03/27-03/31	Project: 3D Design + Laser Cutting – Adobe Illustrator & RDWorks	Step A5: Export the Template to JPG file for Printing Step A6: Export the Template to DXF file for Cutting Step A7: Prepare RLD and RD file for Cutting
<u>8</u>	04/03-04/07 04/03-04/05 Children's Day & Tomb Sweeping Day	Project: 3D Design + Circuits – Operation Robot Board Game	Step B1: Assemble the Board Game Parts
9	04/10-04/14	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Lesson 1: Microsoft MakeCode Light Blocks Lesson 2: Microsoft MakeCode Input Blocks Lesson 3: Microsoft MakeCode Sound Blocks Lesson 4: Microsoft MakeCode Loop Blocks Lesson 5: Microsoft MakeCode Function Blocks
10	04/17-04/21	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step C1: Write the Code with Microsoft MakeCode
11	04/24-04/28	No class on April 28 th , 2023 – G8 Nanliao Trip	
12	05/01-05/05	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step C2: Write the Code with Microsoft MakeCode
13	05/08-05/12	Project: 3D Design + Circuits – Operation Robot Board Game	Step B2: Assemble the Board Game Parts
14	05/15-05/19	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step C3: Write the Code with Microsoft MakeCode
15	05/22-05/26	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step C4: Write the Code with Microsoft MakeCode
16	05/29-06/02	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step C5: Write the Code with Microsoft MakeCode
17	06/05-06/09	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step C6: Write the Code with Microsoft MakeCode
18	06/12-06/17 06/17 Make up for 06/23	Project: Coding – Operation Robot Board Game – Microsoft MakeCode	Step E1: Assemble the Circuit Step E2: Test the Board Game
<u>19</u>	06/19-06/23 06/22-06/23 Dragon Boat Festival	No school on June 23 rd , 2023	
20	06/26-06/30 06/30 Last Day of Semester	Project: Coding – Operation Robot Board Game – Adafruit CircuitPython	Course Wrap-up and Reflection