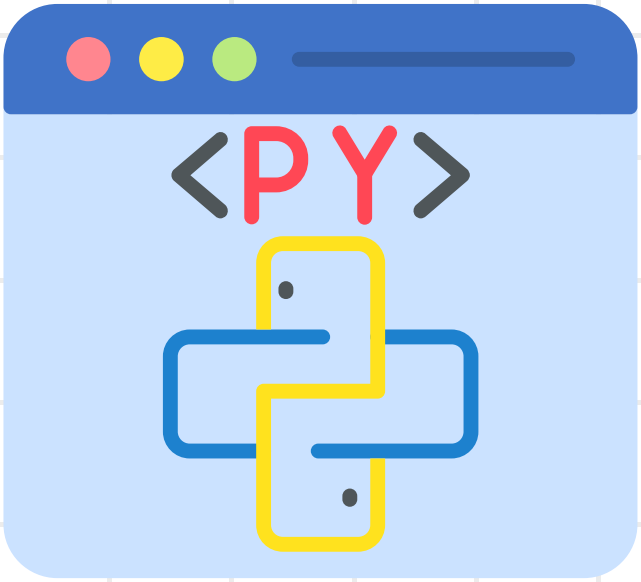
SPACE-E-FIC®

Curriculum Brochure (Junior)

Semester 3

Duration: 6 Months



24 Classes

Weekly Assessments

2 Quarterly Unit Tests

1 Semester Test

*Projects and their order can be further improvised and updated as per latest trends.

Modules	Topics	Learning Outcomes
Module 18 (Robotics)	**Advance electronics -I (Series and parallel connections using breadboard)**	Learners will learn to use breadboards to understand how series and parallel connections work
Module 19 (Robotics)	**Advance electronics - II (Breadboard-ing with sensors)**	Learners will connect sensors in breadboards to do different projects of robotics
Module 20 (Coding)	**Python with Code-combat- I (A gamified introduction to Python)**	Learners will use the gamified python platform 'Codecombat' to get introduced to the basics of Python
Module 21 (Coding)	**Python with Code-combat - II**	Learners will use the gamified python platform 'Codecombat' to get introduced to the basics of Python
Module 22 (Coding)	**Introduction to Python Shell and IDLE (Syntax and indentation with python IDLE)**	Learners will learn the basic 'pip' commands. They will also learn some basic functions like 'print' and 'input'
Module 23 (Coding)	**Conditions in Python (If, If-else, Elif)**	Learners will use the condition statements and do different coding projects using them.

Modules	Topics	Learning Outcomes
Module 24 (Coding)	**Loops in Python**	Learners will learn the basics of python loops like 'for' and 'while true' and leverage them in their code to build different projects
Module 25 (Coding)	**Strings in Python**	Learners will learn the basics of 'strings' in Python and how to use them in their coding.
Module 26 (Coding)	**Defining 'Functions' and calling them in Python**	Learners will learn about how to build a function and use it in their code.
Module 27 (Robotics)	**Game development with Python**	Learners will develop games using python and pygame modules.
Module 28 (Robotics)	**Revision - Line following and Gesture controlled cars using block coding**	A quick revision of two of the most challenging projects of Robotics.