



**AGE 6-8 YEARS**  
**GRADES 1+**

# Coding Ninjas

Your first step to coding!  
Learn sequences, commands, blocks, algorithms, variables, loops, functions, events, sprites, 3D designs, Artificial Intelligence and its STEAM applications using kids friendly programming language developed by MIT and Google to create animations, games, stories and A.I. powered apps.

**Mentor Led, Interactive 1-on-1 live classes**  
**Course designed by IIT-IIM Alumni and PHD Professors**

Coding Makes Kids Smarter!

Coding Ninjas Certificate in  
with LEGO Education

## Our unique "5C" teaching methodology



**Connect**  
Real world examples



**Concept**  
Demystify the topics



**Code**  
Digital Creations



**Contemplate**  
Analyse viable possibilities



**Continue**  
Ideate & Practice Learning



## Testimonials

There were so many options available online, but only RoboGenius was able to explain me everything in simple words and answer all my questions. Together we identified the right fit course for my daughter. She is very happy learning coding here. I am glad that I went with RoboGenius.

**Monika Sharma, Parent, India** 

My child has become more confident and is able to articulate things in a better manner to solve problems.

**Abdul Rashid, Parent, UAE** 

I have learnt a lot about coding Artificial Intelligence systems and look forward to applying this knowledge in my projects.

**Ayomide Ladele, Student, U.K.** 

Great course, excellent faculty. My kid loves robogenius coding classes.

**Kasturi Vivek, Parent, India** 



# Course Descriptor



**Mentor Led, Interactive 1-on-1 live classes**  
**Course designed by IIT-IIM Alumni and PHD Professors**

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Your first step to coding!

Learn sequences, commands, blocks, algorithms, variables, loops, functions, events, sprites using kids friendly programming language developed by MIT and Google to create animations, games, stories and apps. Share your apps with friends & family.



Learn sequences, commands, blocks, algorithms, artificial intelligence, variables, loops, functions, events, sprites using kids friendly programming language.

Coding Ninjas

## Beginner

1-24 Sessions

#	Activity	Learning Outcome
1	Sprite Movements	Coding multiple sprites and backdrops
2	Patterns	Code beautiful patterns
3	Shapes	Code to convert sprite into pen to draw shapes
4	Audio	Code to add audio
5	Animations	Code Visual effects in animation
6	Game	Code Creating a maze solver game
7	Game with Artificial Intelligence	Create game with text to speech feature
8	Challenge	Create your own project with Sprite Interaction
9	Animation	Code backdrop and dance movements
10	Interactive Animation	Code Keyboard controlled animation
11	Game	Code Multiple levels to a game
12	STEM	Pollination Process
13	Game	Code Decision making based on score to Catch Fish
14	Challenge	Control appearance of sprites in a Game
15	STEM	Mathematical operations
16	Game	Code Classic Pong game sprite interactions with mouse control
17	SensorBot	Code Line following robot simulation
18	Game	Cloning concept of sprites to make snakes grow
19	Game	Extending previous game project
20	Game	Code racing game
21	Interactive Animation	Manipulating the background and creating quiz game
22	STEM	Working of digital clock
23	Animation	Creating sprite backdrops for chosen project
24	Animation	Completing the code for the project

Coding Ninjas

## Beginner Plus

25-48 Sessions

#	Activity	Learning Outcome
25	Game	Code with Conditional Statements & Operators Rock, Paper Scissors Game
26	Game	Code Game based on Video Sense Block to save the sprite
27	Functions	Code user defined My block
28	Challenge	Code and Test Spiral Maker
29	Interactive Animation	Sprite Interaction using list
30	Game	List to store multiple objects
31	STEM	Analog watch showing current time
32	App Creation	Stratch Code to HTML App
33	Animation	Communication, Synchronization and Parallelism
34	Game	Penalites and Incentive Management
35	STEM	Building Solar System with planet info
36	Challenge	Adding multiple levels to the previous project
37	Security	Password matching with database
38	Multiplayer Game	Pong Game against Computer
39	STEM	Calculator with numeric keypad
40	STEM	Calculator with numeric keypad
41	STEM	Code Calculator
42	Animation	Code Games with Enhanced Logical decisions
43	Game	Code Dodge the Ball Game
44	Dino Run	Code a plat former game
45	Animation	Creating Decision making process with coordinates
46	Revision	Revision
47	Project	Designing and programing a student-led project
48	Project	Contemplating & extending the student-led project

Code complex projects based on Science, Maths, Arts and Outer Space to enhance creativity, imagination and computational skills

## Coding Ninjas

# Intermediate

49-72 Sessions

#	Activity	Learning Outcome
49	4-in-1	Multiple Sprites controlled by Broadcast message block
50	4-in-1	Multiple programs in one program
51	4-in-1	Program combination
52	4-in-1	Creating complex programs
53	Art Effect	Changing the sprite color effects using conditional blocks
54	Interactive Arts	Mouse control and changing the effects of Shapes by pressing the key
55	Mouse Effect Interactive Arts	Adding more effects using conditional programs
56	Advance Blocks	Draw shapes in Random sizes
57	3D Images	Code using operator block and conditional blocks
58	Arrow Effect	Changing the effect and rotation style of arrow
59	Drawing Board	Designing the Drawing Board and colorful sprites
60	Drawing Board	Code using Broadcast message block and conditional block.
61	Arithmetic Operations	Code addition
62	Arithmetic Operations	Code Subtraction
63	Quiz based on Numbers	Code quiz
64	Quiz based on Numbers	Add based on mathematical operations to the quiz
65	Math race	A race of snails based on the user Answer
66	Factorial Tower	Program based on Factorial concept
67	Number Train	Program Based on series generator
68	Number Train	Number Train extensions
69	Speed Up flower	Animation to create flowers
70	Speed Up flower	Speedup colors
71	Project	Code puzzle
72	Project	Solve the puzzle

## Coding Ninjas

# Advanced

73-96 Sessions

#	Activity	Learning Outcome
73	Cross the river story	Design the story
74	Cross the river story	Code the story
75	Cross the river story	Add extensions to the story
76	Cross the river story	Validate the algorithm
77	Planet gravity	Finding weight on other planets
78	Planet gravity	Validate the algorithm
79	Habitat	Match the habitat of different animals
80	Habitat	Validate the algorithm
81	Water cycle	Code animation of water cycle process
82	Water cycle	Validate the algorithm
83	Earthquake simulator	Effects of different magnitude of earthquake on environment
84	Earthquake simulator	Validate the algorithm
85	Basketball Game	Program based on broadcasting
86	Basketball Game	Validate the algorithm
87	Football game	Two Player Football game
88	Football game	Validate the algorithm
89	Fruit Ninja	Code slicing fruit game
90	Fruit Ninja	Validate the algorithm
91	Game	Cross multiple stages to reach the destination
92	Game	Validate the algorithm
93	Mega Project - App	Design
94	Mega Project - App	Code
95	Mega Project - App	Extend
96	Mega Project - App	Test & Present

Code advanced A.I.powered STEM applications, games and designs to enhance design thinking, problem solving and innovation skills

## Coding Ninjas

# Advanced Plus

97-120 Sessions

#	Activity	Learning Outcome
97	3D Drawing	Code 3D Shapes
98	3D Graphs	Design & Code 3D Graphs
99	3D Racing Game	Design Obstacle avoidance car
100	3D Racing Game	Code & Test
101	Challenge	Based on 3D
102	Game	Design Whack a Sprite
103	Game	Code Whack a Sprite
104	Challenge	Based on Previous Session
105	Slider game	Make the Picture Puzzle
106	Slider game	Code the Picture Puzzle
107	Challenge	Based on Previous Session
108	Battle Sprite Game	Design the Game
109	Battle Sprite Game	Code the Game
110	Challenge	Based on Previous Session
111	Game with animation	Design a Flappy bird game
112	Game with animation	Code & Test
113	Challenge	Revision of game with animation
114	Space Science	Explore and design
115	Space Science	Code & Test
116	Challenge	Based on Previous Session
117	STEM	Explore and design Counting Game
118	STEM	Code & Test Counting Game
119	Project	Design Tic-tac-toe Game
120	Project	Code & Test Tic-tac-toe

## Coding Ninjas

# Expert

121-144 Sessions

#	Activity	Learning Outcome
121	Artificial Intelligence (A.I.)	Introduction to A.I.
122	A.I. Chatbot	Design
123	A.I. Chatbot	Code
124	A.I. Chatbot	Code
125	A.I. Chatbot	Test
126	A.I. Chatbot	Present & Share A.I. Chatbot
127	Speech to text	Understand Speech to text conversion
128	Machine Learning	Introduction to Machine Learning
129	Automatic fan and light	Design and code with scratch using A.I.
130	Tic-tac game	Design A.i. Game
131	Tic-tac game	Code a game with A.I.
132	Science with A.I.	Design a A.I. powered science project
133	Science with A.I.	Code the A.I. powered Science project
134	Technology with A.I.	Design A.I. powered Technology project
135	Technology with A.I.	Code A.I. powered Technology project
136	Engineering with A.I.	Design A.I. powered Engineering project
137	Engineering with A.I.	Code A.I. powered Engineering Project
138	Math with A.I.	Design A.I. powered math project
139	Math with A.I.	Code A.I. powered Maths Project
140	App with A.I.	Design A.I. powered App
141	App with A.I.	Code A.I. powered App
142	Game with A.I.	Design A.I. powered Racing Game
143	Game with A.I.	Code A.I. powered Racing Game
144	Challenge	Design and code a A.I. powered STEM project with your own creativity



### **Give your child the RoboGenius Online Advantage!**

RoboGenius Academy is India's first company to establish world class labs to teach Coding, Robotics and Artificial Intelligence to kids. Coding courses at RoboGenius are designed by team of Engineers, PhD professors, IIT-IIM Alumni and is enriched with our experience of more than a decade in teaching coding to kids.

Our Unique 5C teaching methodology, well-structured curriculum and mentors who are engineers make coding fun to learn and easy to understand. Kids at RoboGenius become creative and innovative problem solvers using A.I. technologies of today and tomorrow.

RoboGenius Kids are smarter and successful.



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