

JR ROADMAP



KEY POINTS

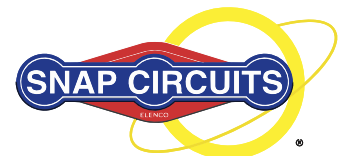
- ✦ Exposes ninjas to coding through creative, playful, and exploratory activities.
- ✦ Utilizes graphical block-based coding environments meant for pre/beginning readers.
- ✦ Balances coding on a device with screen-free "unplugged" activities like robotics and circuits.
- ✦ Allows ninjas to create games, tell stories, solve problems, and more!
- ✦ Builds and strengthens ninjas' skills in collaboration, creativity, problem solving, and critical thinking.

CONCEPTS LEARNED

- ✓ Algorithms/Sequencing
- ✓ Loops
- ✓ Events and Event Handlers
- ✓ Synchronization
- ✓ Parallelism
- ✓ Conditionals
- ✓ Decomposition
- ✓ Debugging
- ✓ Robotics
- ✓ Circuits



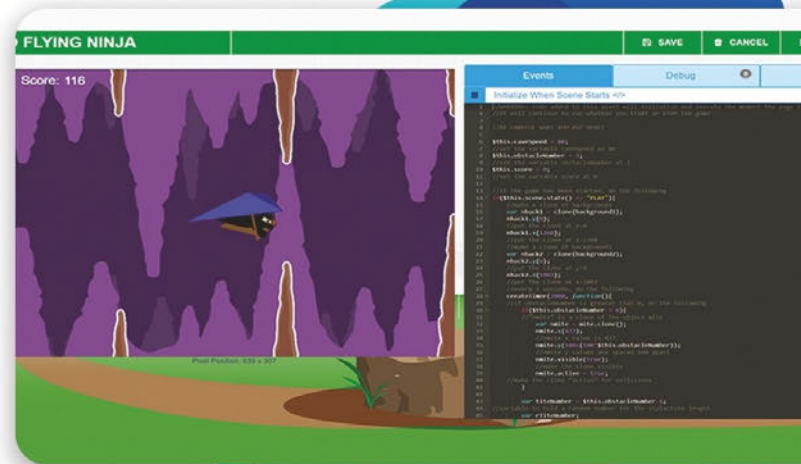
TOOLS USED IN THE JR PROGRAM



ROADMAP

KEY POINTS

- ★ Developed with video games at its core to make learning to code fun for kids.
- ★ Incorporates platforms that kids already love so they can get started on day one.
- ★ Teaches a variety of coding languages, from block-based programming to JavaScript, to C# for more advanced ninjas.
- ★ Builds and strengthens kids' logic, math, problem solving and critical thinking skills.
- ★ Enables parents to see the results as kids advance through the curriculum.



EXCLUSIVE GAME DEVELOPMENT PLATFORM

PATH OF ENLIGHTENMENT



WHITE BELT
Introduction to the game Development Platform
 Concepts: Variables, properties, user interfaces, events, and mathematics.

YELLOW BELT
Introduction to Game Building
 Concepts: Global functions, game object functions, and JavaScript syntax.

ORANGE BELT
Introduction to Control Statements
 Concepts: Conditional statements and loops - while, for each, if/then, switch, do/while, and more.

GREEN BELT
Custom Game Building
 Concepts: Problem-solution mindset, code cleanliness, collaboration, mapping, level design and working with assets.

BLUE BELT
Intermediate Game design
 Concepts: Roblox user interface, local vs global coordinates, camera/scene scope, asset and script management.

PURPLE BELT
Professional Development Environment
 Concepts: Unity interface, intermediate game design concepts, custom animations, foundations of game-building in Unity.

BROWN BELT
Advanced Programming
 Concepts: Meshes and assets, ray casting built in Unity tools, object-oriented programming principles using C#

RED BELT
Advanced Game Design
 Concepts: Scene management, world design, game mechanics, using the Unity Asset Store.

BLACK BELT
Custom Game Development from Concept to Delivery
 Concepts: Storyboarding, planning, prototyping, playtesting, publishing.