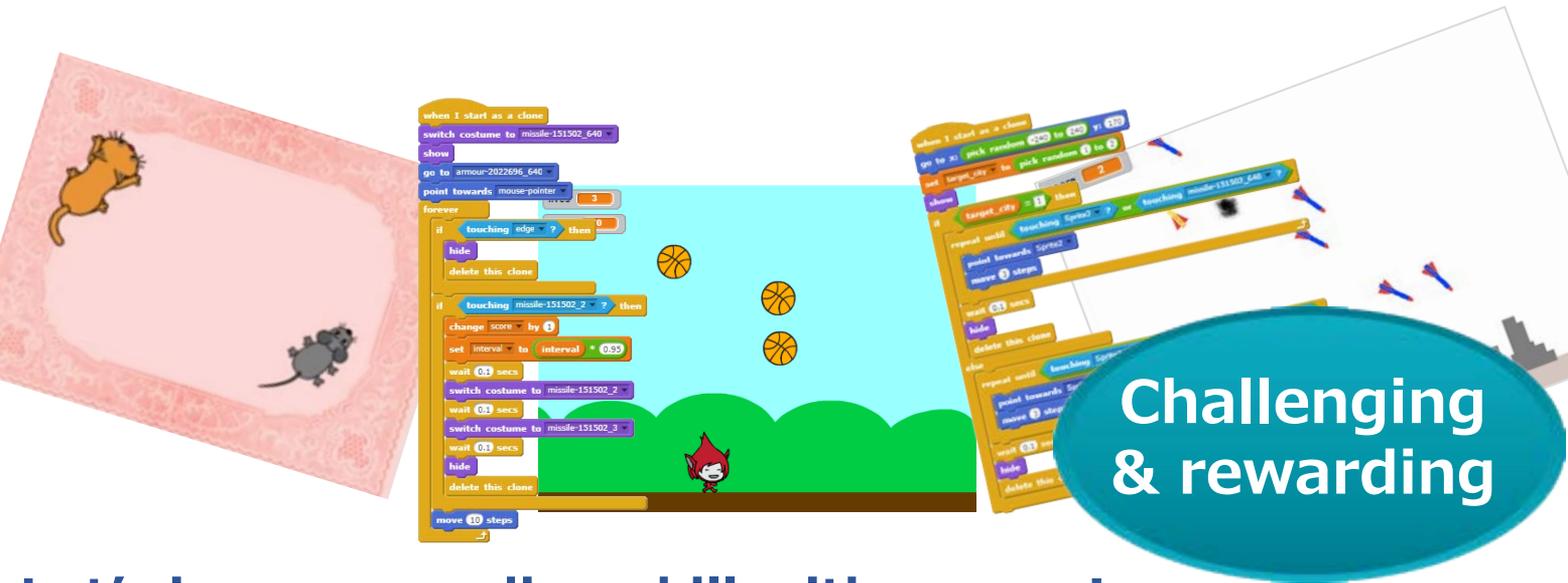


# Game Coding with SCRATCH

## - Advance -



Challenging  
& rewarding

## Let's improve coding skill with games!

Developing games is the best way to advance coding skills. It requires advanced coding skill, user experience design, game story design and a lot of logical thinking. There are many ways to improve and customize each game. These customizations nurture autonomy of your child. It is also fun!



### Advance coding skills

Your child will develop interactive games that require advanced coding skills, events handling, user experience design and logical thinking.



### Build confidence in coding

Your child will build great confidence in coding after developing multiple fun games that he/she can play with his/her friends.



### Expand the boundary

Designing own games, customizing and improving the user experience, and making the games more fun and competitive are very challenging and take your child's skills to the next level.

**Prerequisite:** your child needs to know Scratch or have some programming experience with another language.

## After this program

Your child will be able to design and develop own games and enhance them. Understand the importance of game story and user experience. Understand advanced programming skill such as clone, costume control, and script synchronization with messaging.

## Syllabus

- 1) Week 1
  - Review Scratch basics
  - Develop a maze game (x-y coordinates)
- 2) Week 2
  - Enhance the maze game
  - Develop a game with crone function
- 3) Week 3
  - Enhance the game with crone function
  - Bounce detection, golf game development
- 4) Week 4
  - Crone function for shooting game
  - Enhancement of the game
- 5) Week 5
  - Simulator game development
  - Game physics and trigonometry
- 6) Week 6
  - Intellectual property right, Sound editing
  - Image editing with GIMP2 (Trimming, Level, Curve, Transformation)
- 7) Week 7
  - Image editing with GIMP2 (Color balance, Hue-satulation, Layers)
  - Image editing with GIMP2 (Mask, overlay, filters)
- 8) Week 8
  - Design own game (Short story, situation, characters, actions, scoring)
  - Design own game (Game over condition, restrictions, screen design)
- 9) Week 9
  - Own game development
- 10) Week 10
  - Own game development (continue)
  - Presentation