Other notable systems

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Fancade: a 3D data-flow game building language

Data-flow computation

Typed links (Number, Boolean, Position, Rotation, Object, …)

NO text!

Executed 60 times for second (implicit forever loop)

Execution order: left-right and top-down

Explicit Variables (used also to reduce wires and increase fan-out)

Code can read/write blocks properties

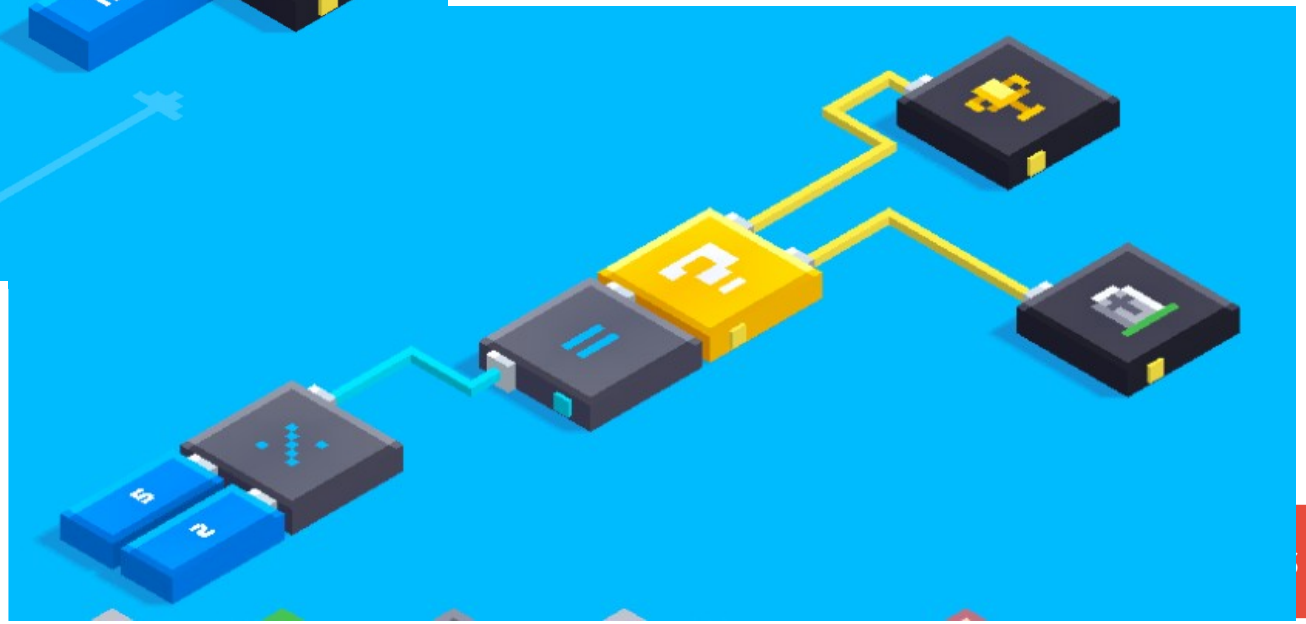
Explicit Control = before/after links (jellow wires)

Loops

do:

Num += 1

while num<100



If-then-else

if 5%2==0:

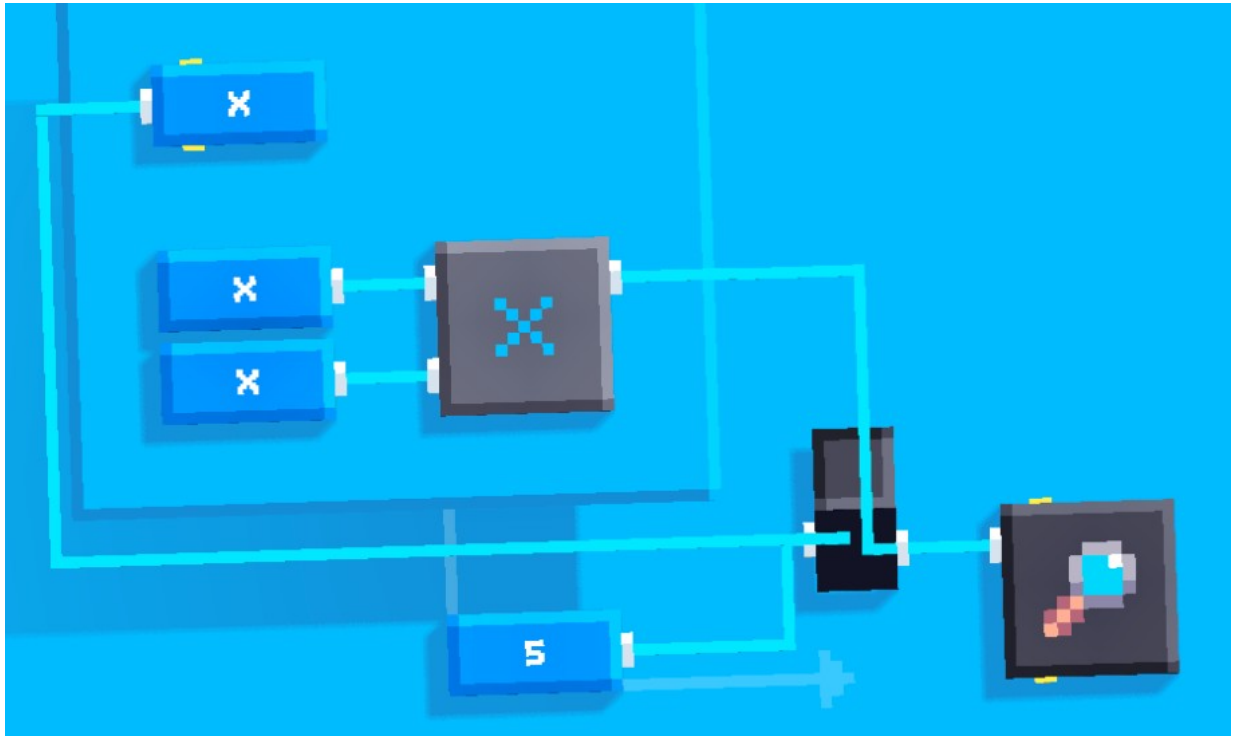
then: win else: lose

Functions: custom blocks

Functions? YES

Just put “code” inside a block, with external connectors

def square(x): return x*x



Modularization:

- custom blocks can be placed inside other blocks
- BUT: NO recursion is allowed (direct or indirect)

Many game-oriented block categories

VALUES (different types)

VARIABLES (getter/setters)

MATH (operators)

CONTROL (if-then, loops …)

SCENERY

SCRIPTS

INSPECTORS

GAME (win/lose/score)

CREATURES

PHYSICS (gravity, vectors, springs, …)

DEMO

PlayOsmo: tangible interaction for kids

Your iPad scans the table in front of it (with an attached mirror)

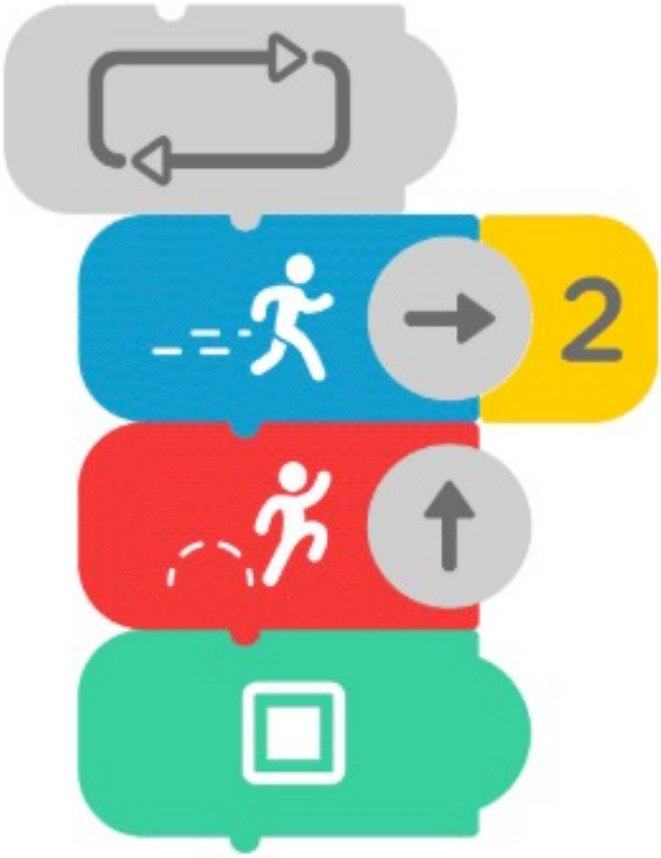
You play with tiles (instructions or tangram pieces or letters or draw)

Loops and simple repetitions

Blocks represent action and direction

- modifier: number of repetitions

Loops



The instructions' meaning depends on the game

- Music playing game

- Monster in a labyrinth game

But also

Drawing helper (virtual reality drawing)

Spell/word games (character recognition)

Tangram (shape recognition)

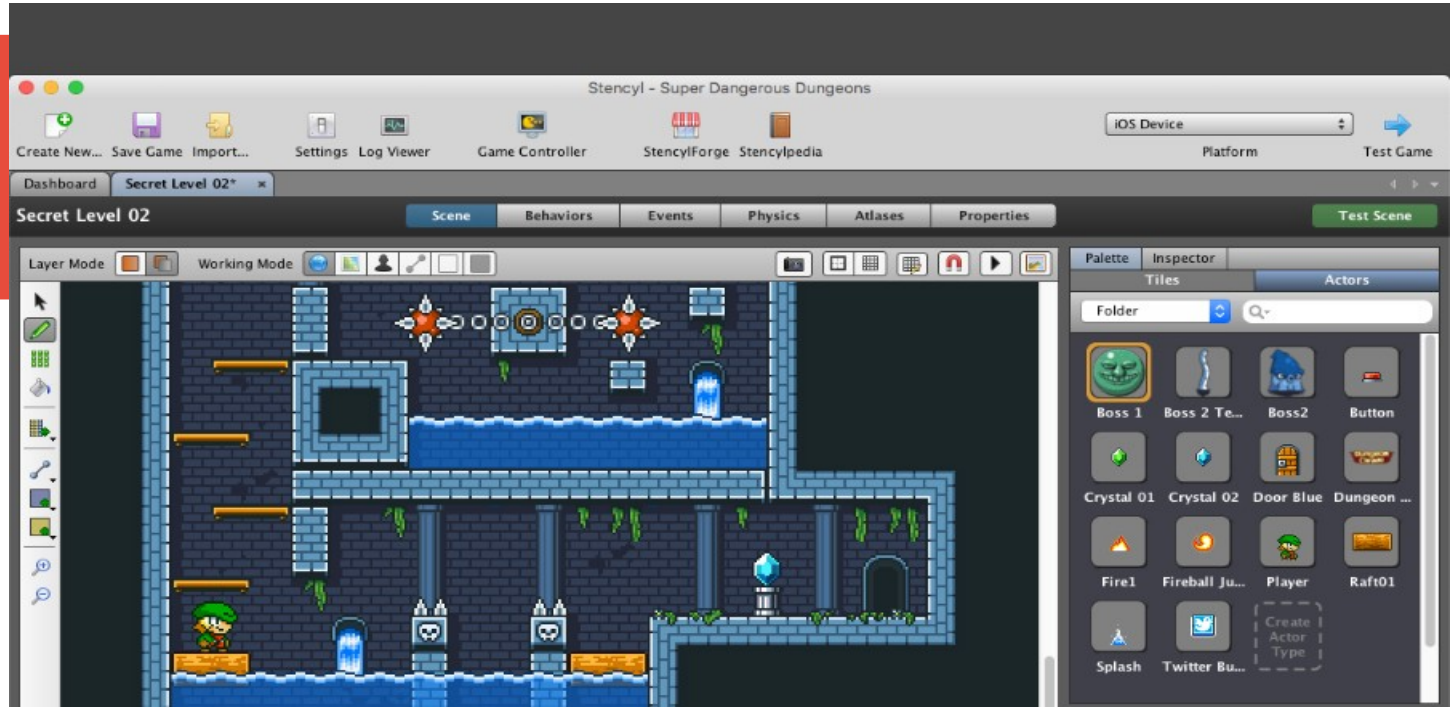
Games (shape recognition)

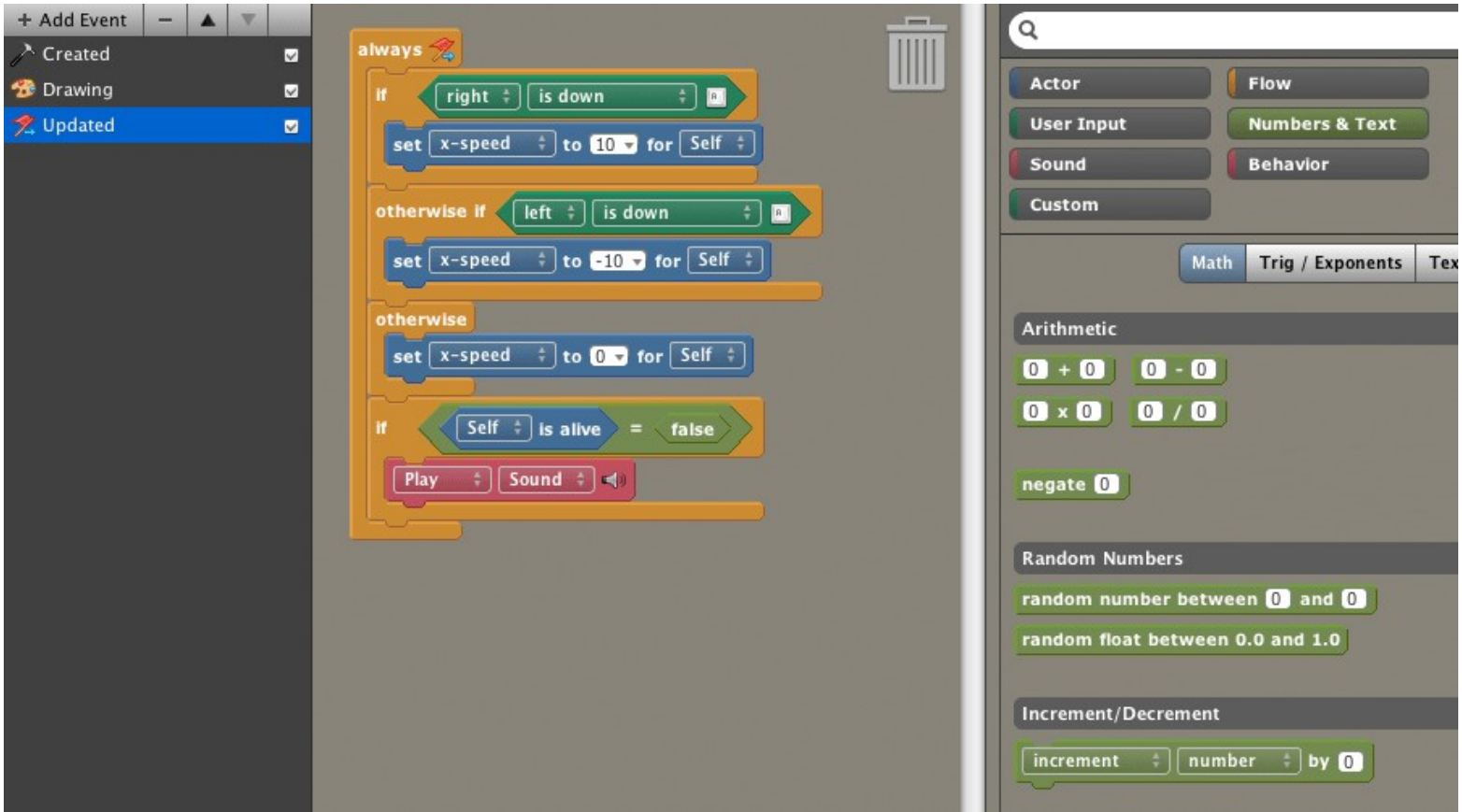
DEMO

Stencyl

Game designer

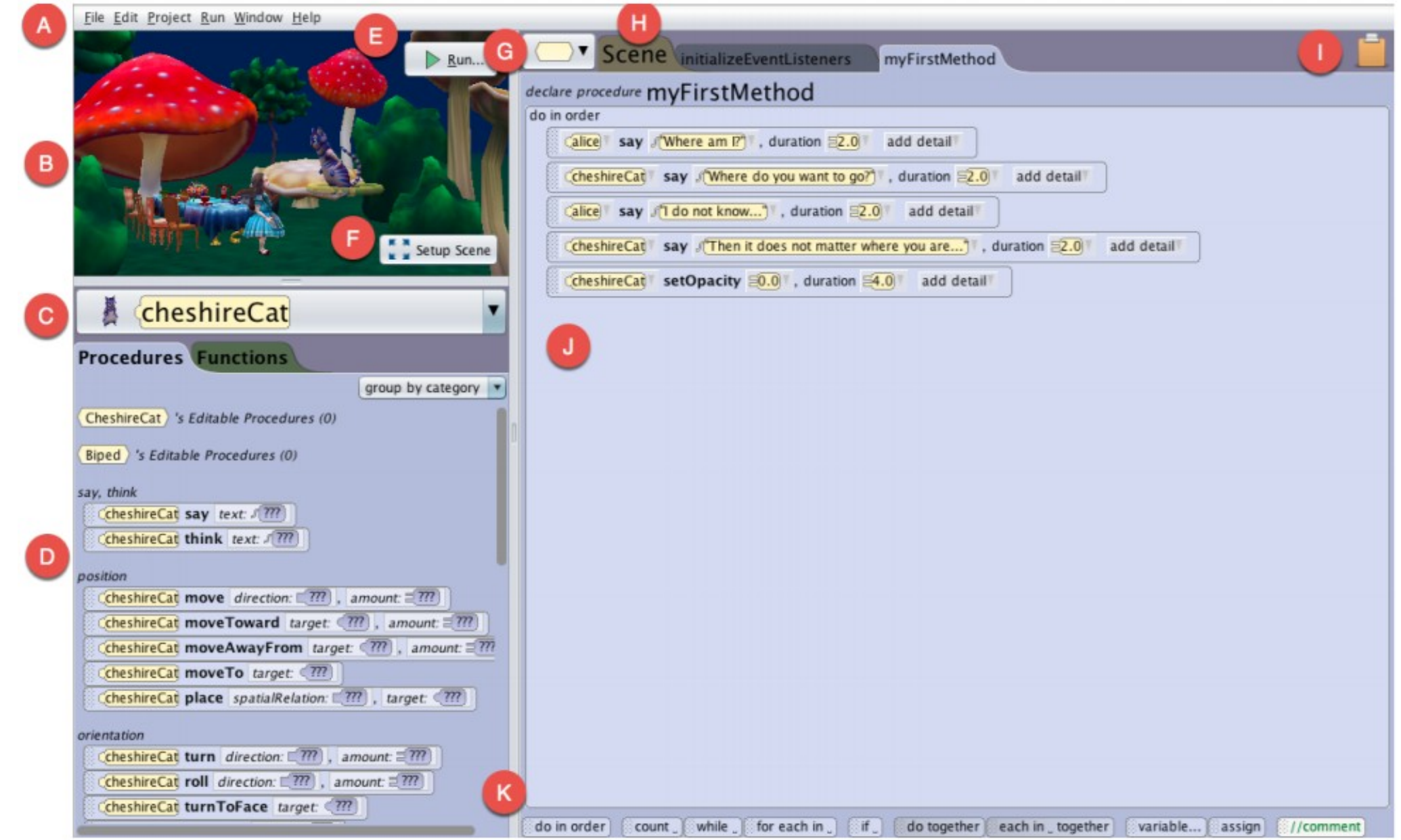
(platforms)





2021-22 Other systems

Alice 3 : 3D world programming



Ren'Py

Dialogue-based adventures (Visual Novels)

Python-inspired simplified syntax (with indentation)

Runs in Python

Methods in

Others

Kodu: Design 3D games on Xbox (and PC)

Kodular: game editor

Construct: HTML5 game editor

Swift Playground: by Apple

MakeBlock: robots/microcontrollers + Scratch

Tynker: Scratch-inspired

… and many other game-editors