

# Game-Making Software



Created by

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in support of



# Welcome

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*This guide was designed by Abertay University to help entrants to the BAFTA Young Game Designers Game-making Award, presented by Sony Computer Entertainment Europe (SCEE), make sense of what tools are available to them in making a game. The software packages named in this document are not specifically endorsed by BAFTA, and no recommendations should be inferred from the content.*

**Are you fascinated by how some of the best video games get made? Have you already been using some of the game making software available to create your own mini games at home? If yes, the Game-making Award could be for you!**

## The Game-makers

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### Programmer

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*(Description provided by TIGA)*

Programmers are the builders of the game. They write the code that forms the very structure of the game. They also write the editors and toolsets that both the Designers and the Artists use to create their In-Game assets (characters, models and environments, scripts and dialogues). A typical modern game programme includes code that handles elaborate lighting, simulates physics, animates characters, handles player inputs, and even manages network communications between different players. If a game was a house, the Programmers are the Bricklayer, the Artist makes the bricks and the Designer is the architect that ensures the house looks like his blueprint (the design document).

# Young Game Designers Programmer's Tools

There are lots of game-making tools out there, all of which are really easy to use! Here's a few examples of those tools:

## Construct 2

HTML 5 game dev software.

It is aimed primarily at non-programmers for creating games in a drag-and-drop fashion utilizing visual editors and a behaviour-based logic system

<http://www.scirra.com/construct2>

## Game Maker

Design your very own games using easy-to-learn drag-and-drop actions – you can create professional-quality games within very little time. You can make games with backgrounds, animated graphics, music and sound effects. And when you've become more experienced, there is an easy built-in programming GameMaker Language (GML), which gives you the full flexibility of creating games with GameMaker.

<http://www.yoyogames.com/make>

## Kodu

The core of the Kodu project is the programming user interface. The language is simple and entirely icon-based.

Programs are expressed in physical terms, using concepts like vision, hearing, and time to control character behavior. While not as general-purpose as classical programming languages, Kodu can express advanced game design concepts in a simple, direct, and intuitive manner.

Kodu is available to download as an Xbox 360 Indie Game. There is also a PC version in an open beta which is available to anyone at their website.

<http://www.kodugamelab.com/>

## MissionMaker

MissionMaker lets students rapidly create visually 3D rich worlds for first-person 'Missions' - complete with sets, animated characters, dialogue and music. Users can:

- select elements from an extensive object library to create a unique game world
- create and animate 3D characters
- import their own music, graphics and video
- set rules for game play.

<http://www.immersiveeducation.eu/index.php/missionmakerm>

## Scratch

- Scratch is developed by the Lifelong Kindergarten Group at the MIT Media Lab, with financial support from the National Science Foundation, Microsoft, Intel Foundation, MacArthur Foundation, Google, Iomega and MIT Media Lab research consortia.

- Scratch is a programming language that makes it easy to create your own interactive stories, animations, games, music, and art -- and share your creations on the web.

<http://scratch.mit.edu/>

## Stencyl

Stencyl is a game creation platform that allows users to create 2D video games for mobile devices and the web. The software is available for free, with select publishing options available for purchase.

With a single click, Stencyl will quickly build your game and launch it in a web browser, in the iOS Simulator or on your iOS device. Even PC users can join in on the fun thanks to our online StencylBuilder service.

<http://www.stencyl.com/>

# Programmer's Tools – Quick Overview

	Construct 2	Game Maker	Kodu	Mission Maker	Scratch	Stencyl
<b>Price</b>	Free (for basic version)	\$39.99 - \$99.99	Free	£80 for standalone version	Free	Full version - \$149 p/a Stencyl Lite - Free
<b>Platform</b>	HTML5	Windows/Mac/HTML 5	Xbox 360/PC	PC?	PC	iOS/PC
<b>Features</b>	No coding required Drag and drop 2D environment Music and sound effects	No coding required Drag and drop Animated graphics Music and sound effects	No coding required Icon language 3D environment	No coding required 3D environment Own media can be imported	No coding required Drag and drop 2D	No coding required Live testing quick and easy

# Programming Languages



If you want to do more detailed programming than the above tools offer, you might want to explore Programming Languages. Programming Languages allow you to tell your computer what to do. Programming languages are used to create programs that control the behaviour of a machine. Here's some Programming Languages and useful links that you may use in game-making:

## Adobe Flash

<http://flashgamedojo.com/>

## XNA/C#

<http://create.msdn.com/en-US/>

## Unity

<http://unity3d.com/>