

Top 5 free game development software tools

Have you ever aspired to create a game dedicated to life or not? What would you think if I said that you could do it even if there was no experience with game development? Let's TipsMake.com refer to Top 5 free game development software tools in this article!

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Have you ever aspired to create a game dedicated to life or not? What would you think if I said that you could do it even if there was no experience with game development? In the last decade, we have seen tremendous progress in the game development world - in the past to develop games you had to have deep knowledge of programming, but today people who have never programmed Can learn how to make their dreams come true. Anyone who can create a game with just a little patience and effort is enough.



Of course, that doesn't mean it's easy to develop games. Even something as simple as **Flappy Bird** or **Tetris** can spend a lot of time and effort to make it better. But thanks to the free game development software tool, a game that takes a year to do now can be done within 6 months or faster - even without the need to know the code!

However, you must understand one thing: creating your own game is possible and easier, but it doesn't mean too easy. Like readers of fiction, who often want to write their own novels, game enthusiasts also want to create their own games, but to create any game, you have to work hard and devoted. If you are willing to accept those challenges, the free tools for developing games later will equip everything you need to develop your own games.

Note : This list is arranged in order from simplest to most complex. Simple tools are easier to learn and easier to use, but they will have many limitations. Complex tools allow you to have more freedom, but learning how to use them will be more difficult and time consuming.

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1. Construct 2

No programming required . Construct 2 is the best option if you have never written code. Construct 2 is a flexible HTML5 game creation tool, designed to quickly develop 2D games. While the traditional process of game development can be difficult for beginners, Construct 2 makes this process easier by abstracting some concepts to the outside. All you need to do is drag-and-drop entities into one level, then add events and behaviors to each of them. This job is quite easy, isn't it? Logic games and variables are implemented using the design features provided by the application itself. Unfortunately, code is not available even if you want to write them.

Free game development software Construct 2 is very intuitive and easy to use, so beginners - completely unknown are relatively easy to adapt to it in a short period of time. And experienced game developers will benefit from Construct 2 by using it to quickly create prototypes for their potential game ideas.

Create once, publish anywhere. The advantage of Construct 2 is that you can export multiple platforms or different formats. When building the game, you can export to HTML5, Window Store, Chrome Web Store or Facebook. With a fee-based copy, you can also export to Android, iOS, Windows, Mac, Linux and more.

Lots of documents . Construct 2 has good and understandable documents. In addition, there are hundreds of guides that can help you understand concepts from simple to intensive and this forum community is extremely helpful if you need help.

Resource warehouse . Most programmers do not have the skills in art, music and graphics. However, you can search and purchase built-in resources on the Scirra Store. Most of them cost only a few dollars, but professional items can cost \$ 30 or more. In addition, you can also buy sample games.

Price The free version has basic features but is limited to 100 events, 4 levels of play, 2 special effects, only access to a number of sample resources and not allowed to sell games. Personal licenses cost 130 USD and are removed from all these restrictions.

2. Game Maker Studio

Drag-and-drop or write code : Like Construct 2, Game Maker Studio (GM: S) allows you to create games using drag-and-drop methods for variables and logic games. The other is GM: S uses an integrated scripting language in Game Maker Studio called GML, a flexible programming language like the C language.

Create once, publish anywhere . When your game is complete, Game Maker Studio can export an application compatible with iOS or Android operating system, an executable file compatible with Windows, or HTML5 operating system so you can upload it to the page. your web without changing the code. However, the free version is only allowed on Windows while the Professional version can export to other platforms (such as Android, iOS and HTML5) using paid modules.

History GM: S has been around since 1999 and it still works better than most other free game development tools. The new version with feature updates is released regularly and even has a new version called Game Maker Studio 2 in the works being rewritten from scratch.

Integrated advanced features . GM: S is popular because it supports a lot of high quality features such as in-app payability with games, real-time analysis of how users play games, source control, multi-person networks. use and scalability via third-party extension software. It also has a built-in editor for images, graphics and shaders (special programs written to run on GPUs ie graphics processors).

Price The free version can be used without limitation but GM: S is a bit expensive. The Professional Edition (Professional) is priced at US \$ 150 and comes with a Mac, Ubuntu, Android, iOS and HTML export module for 100 USD, 100 USD, 300 USD, 300 USD and 200 USD respectively. Or you can use the Master version, with all export modules for \$ 800 (saving at least \$ 350).

Game Maker Studio is powerful enough to help professional game makers use their work. So there is no reason why you are not using it right?

3. Unity

Support 2D and 3D . Unity started as a 3D application, but added official 2D support in 2013. Although it is fully capable of creating 2D games, sometimes you may encounter errors or problems with Unity's 2D system only. is the part added to the core 3D system only. That means Unity adds a lot of unnecessary features to 2D games, which can affect running games.

Component-based design . Unity does not go towards component-entity design, but it has great merits in scaling up. In short, everything in the game is a subject and you can add components to each subject, where each component will manage some aspects of the subject's behavior and logic.

Widely used and documented . To make the most of Unity, you'll want to use C #. The good news is that Unity is widely used - including industry enthusiasts and "veterans" - you'll find thousands of tutorials on the web to get started. Moreover, Unity also has a series of in-depth videos for beginners and offers great resources.

If you are interested in the code aspect, we recommend that you see the introduction to Unity:

Create once, publish anywhere . Unity has the most extensive game export support for game platforms such as Windows, Mac, Linux, Android, iOS, WebGL, Facebook, all VR system platforms such as Oculus Rift and Steam VR, as well as some Game consoles like PS4, XB1, Wii U and Switch.

Resource warehouse . You can buy a lot of resources for games like mini map systems, 3D models, HD graphics and lots of free resources.

Price The free version is not limited to the application and can be used completely free as long as your income is less than \$ 100,000 per year. Plus version (35 USD / month) unlocked some advanced editing features and raised the income limit to 200,000 USD per year. The Pro version (\$ 125 / month) allows access to Unity source commands and unlimited revenue.

4. Godot Engine

Support 2D and 3D . Like Unity, Godot Engine supports creating 2D and 3D games. However, Godot's support is much better. The 2D application part of this tool is carefully designed from the start, making it better, less error-prone and smoother.

Landscape design . Godot's approach to game architecture is unique where all are divided by scenes - a collection of elements such as sprite graphics, sound and / or manuscripts. You can then add these scenes to a larger scene. This hierarchical design approach makes it easy to organize and modify personal elements whenever you want.

Optional text programming language . Godot uses a drag-and-drop system to maintain scene elements, but each of these elements can be expanded via the built-in text programming system, using a Python-like language called GDScript. It's easy to learn and fun to use, so you should try it even if you don't have the code experience.

Create once, publish anywhere . Godot can be deployed on multiple platforms including Windows, Mac, Linux, Android, iOS and HTML5. You do not need to pay additional fees or permits, but there will be some limitations.

Advanced features are available . Godot repeats very fast for game programming. There will be at least one new version published every year and that is why the great features included in this tool such as pre-operation, system, all kinds of available edits, source control, Direct debugging, hot rerun and more.

Open source and free . Godot is the only tool on this list that is completely free. Because it has an MIT license, you can use and sell your game at your own discretion without any restrictions. You can even download the source command and change it to your will (the tool is written in C ++).

5. Unreal Engine 4

Developed by experts . Of all the tools on this list, UE4 is the most professional tool. It is made up of the scratch programming language by experts behind the Unreal application chain - who knows what is needed in a leading tool and what it takes to provide next-generation features. They know exactly what they are doing!

Superior features . One of the outstanding features of UE4 is that it allows you to iterate and grow as fast as possible, features such as direct debugging, hot rerun, fast resource paths, instant game previews, more rows Hundreds of resources and systems are available such as artificial intelligence, maps, cinema tools, post-processing effects and more.

No need for code . The important difference of UE4 is the Blueprint system, which allows you to build game logic without writing code. It's professional enough so you can build an entire game, including complex games, without opening the source code. But if you want your own Blueprints code, you can do that too.

The best guide . UE4's Youtube channel has more than 800 extremely detailed videos and most of these videos last from 20 to 60 minutes. That content is more than what you get from a university session. If you need a step-by-step guide, UE4 is for you.

Create once, publish anywhere . UE4 allows you to develop multiple platforms including Windows, Mac, Linux, Android, iOS, HTML5, PS4, XB1 and more.

Price You can use it completely for free to access the entire application (including source code). When you earn more than \$ 3,000 a quarter, you will have to pay 5% from the profit. That means you only have to pay when your game is successful. Is that amazing?

Other notable free game development software:

There are a number of other game development software tools not named in the Top 5 free game development software tools but still worth a try, especially if the tools listed above are too complicated or simple Not what you are looking for.

There are three tools you should think of: Stencyl (very similar to Construct 2 in drag-and-drop), GDevelop (also drag-and-drop but not complete), Defold (almost like a lightweight version of Unity but focused on JavaScript, not C #).

Which free game development tool is most appealing to you? Do we miss any tools? Please share with us in the comment section below!

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