

Tutorial: Modifying guns and ammo values

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(original by WillDaPope/Lirikana)

Thank you to [@Lirikana](#) for creating this guide.

Hello and welcome, if you are reading this, then you are looking to, or starting to get your feet wet in the world of SPT modding. This guide is built on top of my [library](#) and I will be using the functions inside to modify the weapons and ammo. I will also include a short guide on how to create your own mod, in case that you are not familiar with the process.

1 Requirements:

1. Text Editor (Notepad++, VSCodium, etc.) or IDE (Intellij, Eclipse, etc.)
2. Patience

2 How to Make a Mod

To make a mod, the first step is to navigate to your mod folder.

[bce7394bb5e446bd7a557d8032360fb0-Preview.webp](#)

Here is my mod folder, and you can see a list of mods here. I will be using the `Lirikana_Dev` as an example. Make sure to name it whatever you want.

IMPORTANT: SPT loads mod in alphabetical order, this is why my libraries have the A_1, or A_2 prefix before them. This ensures that they are loaded first. To ensure that your mod is loaded after my library, you can add the B_ prefix to your mod name to ensure that it will load properly.

[c36a72302bce07a8f79517c72191daea-Full.webp](#)

This is what it looks like inside the folder. We will break down each file individually.

The `src` folder contains the main code of your mod. The `src` format is standard practice in many mods, and it is good practice to follow the same format.

The `LICENSE` contains the license for distribution and modification of the mod. My mods are using the NCSA

Open Source License, and this is typical for most mods.
f44df6b3da844700187cf56ec0f1d38b-Full.webp

This is what the file looks like when you open it with a text editor.

The license is required if you want to upload the mod to share with others. It isn't necessary if you are making the mod for yourself.

package.js is the file that tells the game what code to load. It might sound complicated, but it is really simple inside. I recommend simply copying the code from the following code block, and make any modifications that are highlighted.

2.1 JavaScript

Code

```
const { MOD } = require("../src/Lirikana_dev.js");  
module.exports.mod = new Mod();
```

This is the code inside the file. All you need to do is change the Lirikana_Dev.js to whatever name you gave to your mod source file. package.json tells the game what dependencies this mod has. It also contains information like the author, the mod's name, the version, and the license. You need to make sure that you have the correct dependencies added for the mod to work properly.

2.2 JSON

Code

```
{  
  
  "name": "Lirikana_Weaponlib",  
  
  "author": "Lirikana",  
  
  "version": "1.0.7",  
  
  "license": "MIT",  
  
  "main": "package.js",  
  
  "dependencies": {}  
  
}
```

Display More

All that needs to be changed here is the name, author, and the dependencies. Depending on what your mod is like.

README.md tells other people what your mod does. This is typically the first place you should look for information on how the mod works. My [library](#) has a fairly definitive readme for what all the function does.

That is all the files in the root folder. These are pretty simple, and shouldn't take very long to set up. The src folder and the file inside is where all the magic happens.

Lirikana_Dev.js is the file located in the src folder. This JavaScript file contains all that is needed to create a mod. I will be doing the rest of this section in the following file, and a template is available at the end of this guide.

The following image is the most basic structure of a mod.

7f2a144041e85ad3bd1c171537fa2-Full.webp

This is all you need to have a mod. However, all this does right now is making the terminal say Loading: YourMod.

To allow our mod to use the weapon library, we will make the following modification to load(){}. We will not be making any changes to constructor(){}.

21095fd8733c24323b860aa75b63722-Full.webp

All this does is that it allows us to access all the nice functions that are inside the weapon library. Now, how do we start modding weapons and ammo?

Modifying Weapons and Ammo

There are two methods to modding weapons and ammo, you can either modify the existing items in the game, or clone the items, and then modify the cloned item's stats. We will cover the steps for both methods.

3 Modifying an Existing Item

The first step is to go to <https://items.sp-tarkov.com/>. This link contains a database of all the items in the game, and makes modding items a lot easier. Let's say that we want to modify the AK-74N. Once on the Item Viewer, search for "AK-74N". All we need from this page is the Item ID, seen below.

05f45379c62440c1d22abedc71edfec8-Full.webp

Copy the Item ID, and return to your mod file. Here we will add an additional line. This will make our life easier when we start modifying the weapon later on. This is all you need to do to start modifying an existing item.

51d08d41631e2d8b5542593487422459-Full.webp

4 Cloning and Modifying an Item

This is an extension of the previous section, but I will include the relevant information regardless.

The first step is to go to <https://items.sp-tarkov.com/>. This link contains a database of all the items in the game, and makes modding items a lot easier. Let's say that we want to modify the AK-74N. Once on the Item Viewer, search for "AK-74N". As before, all we need from this page is the Item ID. Copy the Item ID, and return to your mod file. Like above, we will add an additional line. To prepare to clone the item however, there will be two additional lines added.

16761fb8ab54ac2f711488d81ec2d84b-Full.webp

The ak74nclone line is basically what the game recognizes your weapon by. So you can change it to whatever name you want. One important note is that the name must be enclosed in "", or else the game will not recognize it properly.

The next step is going to be using the first function from our library, and it will create a clone of our item with the new ID.

11344ba82e0cf2f36c79facff9d4b5-Full.webp

With the new lines, we've added a new item to the game, and it is identical to the AK-74N. Now we can move on to modifying the weapons

5 Attributes to Modify

5.1 Weapon Attributes

If you've taken the time to read through the items on the website, then you realize there is a dizzying amount of information available. Here I will break down the important weapon specific attributes.

- RecoilForceUp, RecoilForceBack - This determines the vertical and horizontal recoil of the weapon. This can be modified by several functions in the library.
- bFirate - This determines the weapon's rate of fire in automatic and burst. This will not affect the weapon's semi-automatic rate of fire.
- CameraRecoil - This affects the camera recoil of the weapon. This determines how much the camera jumps around when you are firing the gun.
- Ergonomics - This affects the ergonomics rating of your weapon.
- weapFireType - This affects what firing modes are available to the gun. Note that bolt-action rifles cannot have full-auto or burst mode. Since the action of cycling the bolt is hard coded to the weapons.
- CenterOfImpact - This determines the deviation from the point-of-aim. Basically affects the MOA rating of the gun.
- ShotgunDispersion - This determines how wide the pellets will spread in a shotgun.

There are many more attributes, but these are the major ones that you would likely change.

5.2 Ammo Attributes

- Damage, ammoAccr, ammoRec - Damage determines the flesh damage of the round. ammoAccr and ammoRec are percentage modifications to the round's attributes. -10 would mean 10 percent less accuracy, or recoil.
- PenetratingPower, PenetratingPowerDeviation - This determines the penetration of the round, as well as how wide deviations can be. For example, if you have penetrating power of 20 and deviation of 5, then your actual penetration can range from 15 to 25.
- InitialSpeed - This determines the velocity of the round.

6 Applying the Modifications

Let's say that we want to reduce the recoil of the AK74-N to 0. I will show two methods here; one using the library and one using the default method.

```
46849d57acdc3c3ed7055fced45c8a75-Full.webp
```

The last three lines change our cloned item as well as the default AK-74N to 0 vertical and horizontal recoil. Now, in order to get the new item into the game, we will need to add it to traders and the flea market. To accomplish this, we will need to add a few more lines.

```
b8a9dd8bdb12d47a079d7213b7c1289a-Full.webp
```

The last three lines are used to add the item to Peacekeeper LL1, with the item being priced in dollars. This also adds the item to the flea market. Now, if everything is set up correctly from before, we can see the results of our mod.

```
54f5adb70f3544f57a2e9ccac467921-Full.webp
```

Here we can see our AK-74N with 0 recoil. Note that you will only be able to buy the receiver from the vendors with this method.

There are ways of adding attachments to the receiver, but that is outside the scope of this mod. Explore the options available in the library, and experiment by changing the different options. See below for the template:

6.1 JavaScript

Code

```

Class YourMod{ //Change YourMod to your mod name.
    constructor(){
        this.mod = "YourMod"; //Change this to your mod
        core_f.packager.c

    }
    load(){

        const ak74nclone =

        database_f.server.tables.templates.items[ak74nId]._props.RecoilForceUp=0;
database_f.server.tables.templates.items[ak74nId]._props.RecoilForceBack;

        const

        lib.itemAddA

    }
}

module.exports.Mod = YourMod; //Change YourMod to your mod name.

```

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items.sp-tarkov.com
<https://items.sp-tarkov.com/>

items.sp-tarkov.com
<https://items.sp-tarkov.com/>

Additional information	
Technical knowledge requirement	No programming skills required