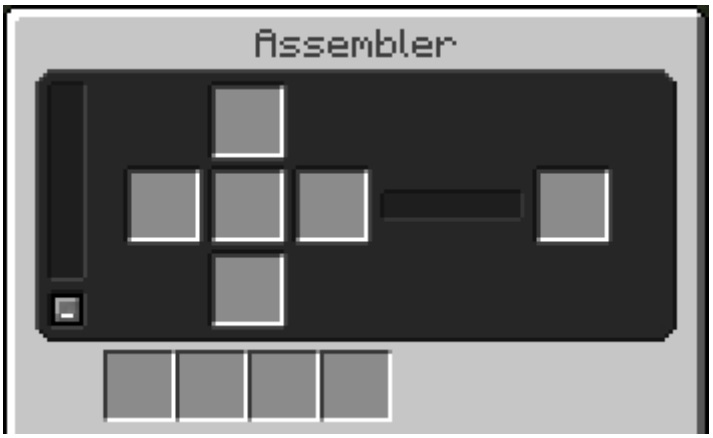
Assembler

In this chapter you will find information on the Assembler and how to add new recipes to it using Datapacks. The Assembler is one of the core crafting mechanics used to craft widely used components and Blocks.

- Assembler
- Creating Assembler Recipes

Assembler

The Assembler is used to craft and upgrade many items and blocks in the Environmental Mods. It is also one of the first machines you will need to craft in order to progress in any of the Environmental Mods.



Crafting Slots

In the Assembler the order in which each slot is populated is: top, bottom, left, right, center.

Modifiers/Speeding up the Assembler

The Assembler is pretty slow by default but you can make it a lot faster by using Frequency Modifiers(Yes the same ones you put in your Void Miner). Using the bottom 4 slots in the GUI you can have up to 16 modifiers installed at a time.

Automating

It is pretty simple to automate the Assembler. The button in the bottom left of the GUI switches the input slots between accepting 64 items or 1 item per slot. Make sure this is set to 1 item per slot if you intend on only crafting 1 thing at a time.

If you are using Refined Storage its best to use its JEI + button to create the recipes as it puts the input items in the right insertion order in the pattern.

Creating Assembler Recipes

In this article we will look into how to make recipes for the Assembler using json based datapacks. The folder location for your recipes would be in `data/NAMESPACE_HERE/envirocore/assembler/` the NAMESPACE_HERE can be replaced with your datapack/mods id.

Lets make a recipe.

This is the base recipe structure for an Assembler recipe. `"top"`, `"bottom"`, `"left"`, `"right"` and `"center"` are all input slots and `"output"` is obviously the output slot for the recipe. The `"duration"` is how long the recipe takes to craft in ticks. Keep in mind that this is the base recipe time and can be faster if Frequency Modifiers are used inside the Assemblers modifier slots.

```
{
  "duration": {
    "raw:int": 100
  },
  "top": {

  },
  "bottom": {

  },
  "left": {

  },
  "right": {

  },
  "center": {

  },
  "output": {

  }
}
```

Each input can accept a variety of types including Items, Items with NBT, and Item Tags. You can find all possible input types in this article: Recipe Item Types

Merging Center Slot NBT

In assembler recipes the `"center"` slot can have its nbt merged with the output Item. To do that you will need to have the following in the base recipe itself (not in any of the slots)

```
"merge_center_nbt": true
```

Overriding Recipes

If you want to disable or replace any of the recipes for the Assembler you can follow This Tutorial