

The Model Editor/Creating Custom Models

Zora no Densha adds the ability to assemble and configure a rail vehicle from a set of installed parts. Assembly of rail vehicles happens in the Engineer's Table.

Opening the Model Editor

Place an Engineer's Table and right-click it to open its GUI. In the GUI, select the Trains tab by clicking onto the center icon on the top right (the icon that shows the blue locomotive and the white passenger car). The GUI will change appearance.

GUI Elements

| Position | Element | Short Description |
|--|---------------------------------|--|
| Top-left corner | Model Editor Window | View the vehicle you're editing, interact with it inside the window using your mouse/ touchpad. |
| Center-right | Vehicle parts and saved Presets | Add and (de-)select vehicle parts or load and export Preset files. Scroll through all pages by clicking the + and - buttons above. |
| Center-left, below Model Editor Window | Input slots | Input slots for Black Dye and Paper. These slots have to be filled in order for a Blueprint to be printed. |
| Bottom-left (if selection isn't empty) | Selection and Pivot data | View and change the average data of the selection's elements, such as average offset and rotation. Set the Pivot's position. |
| Bottom-right (if selection isn't empty) | Selection index data | View and change an individual part's data, such as offset, scale, rotation or color. Some parts might have additional fields that can be changed. Scroll through the selection's indices by clicking the + and - right next to the index number. |

Keyboard Shortcuts

Please note that following keyboard shortcuts assume that you use default settings; the respective key might differ depending on your settings.

| Key/Shortcut | Function | Short Description |
|--------------|--|--|
| CTRL+C | COPY selection | Copy the selection into the clipboard. |
| CTRL+V | PASTE selection | Paste the clipboard. |
| CTRL+Z | UNDO action | Undo your previous action. |
| G | MOVE selection | Grab and move the selection using your mouse. While grabbing, press X, Y or Z to move along a specific axis. |
| R | ROTATE selection | Rotate the selection along the view axis using your mouse. While rotating, press X, Y or Z to rotate about a specific axis. Change the Transformation Mode to rotate about local origin, selection center, or pivot point. |
| S | SCALE selection | Scale the selection in all dimensions using your mouse. While scaling, press X, Y or Z to scale along a specific axis. |
| X | DELETE selection | Remove the selection from the Model Editor. |
| 5 | Toggle orthographic/ perspective view | Press to switch between orthographic and perspective view mode. |
| 8 | Set camera angle - View along +X | View the model's rear. |
| 2 | Set camera angle - View along -X | View the model's front. |
| 3 | Set camera angle - View along +Y | View the model's bottom. |
| 9 | Set camera angle - View along -Y | View the model's top. |
| 6 | Set camera angle - View along +Z | View the model's left side. |
| 4 | Set camera angle - View along -Z | View the model's right side. |

Model Editor Options (Drag down menu)

Right-click in Model Editor Window to open.

| Option | Short Description |
|-----------------------------------|--|
| Clear model | Remove all vehicle parts. Leaves the entire Model Editor window blank. |
| Save as Preset | Save the model as Preset file. |
| Toggle floor grid | Click to (de-)activate the floor grid displayed in the Model Editor window. |
| Transformation mode | Click to switch transformation mode (applies to rotation). Switches between individual origins, selection center, and pivot point. |
| Orthographic/ Perspective view | Click to toggle orthographic/ perspective view. Will change the camera's projection mode. |
| Toggle pivot | Toggles the pivot's size. |
| View in world | Click to toggle rendering in a small scene. Disables pivot and floor grid. |
| Set initial mass | Click to set a value to either increase your trains mass (positive value) or reduce its mass (negative value) |

Vehicle Part Options (Drag down menu)

Right-click on any vehicle part icon on the center-right of the Model Editor to open.

| Option | Short Description |
|--------------|--|
| Add to model | Adds the selected part to the model's center with default settings. |
| Deselect all | Removes all vehicle parts of the selected type from the selection. |
| Select all | Clears the selection, then adds all vehicle parts of the selected type to the selection. |

Preset Options (Drag down menu)

Right-click on any Preset icon on the center-right of the Model Editor to open.

| Option | Short Description |
|--------|-------------------|
|--------|-------------------|

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|--------------------------------------|--|
| Load Preset | Load the selected Preset. If there is another model in the Model Editor, it will ask to save. Clicking "No" will directly load the model without saving, clicking "Yes" will open the Preset save prompt. Press ESCAPE on your keyboard to cancel. |
| Print | Prints the selected Preset as Blueprint. Requires the input slots to be filled. |
| Export as file (If not exported) | Creates a Preset file in your Add-Ons directory. Use that file to share your Preset. |
| Remove Preset (If not exported) | Deletes the Preset forever. This cannot be undone! |
| Remove from Add-Ons (If exported) | Deletes the Preset from your Add-Ons directory forever. This cannot be undone! |
| Move to begin (If not exported) | Moves the Preset to the first index of Presets. The first index will be rendered on top of the Engineer's Table. |

Assembling and editing vehicles

In the Model Editor, either load a Preset and edit it or start off with a clear model. Add Vehicle Parts and customise them to your taste. Once you are finished, save your glorious work as a Preset.

Printing vehicles

Right-click a Preset in the Engineer's Table GUI to print it. Remember to fill both input slots with Black Dye and Paper.

Blueprints have infinite uses. Right-click with a Blueprint in the center of a Maintenance Track section that is at least as long as the vehicle you're going to create. If the vehicle doesn't spawn, the track might be too short, or there might be blocks or other things obstructing the vehicle.

If the vehicle was successfully spawned, a transparent "ghost" model will be shown. (Please note: This will spawn the vehicle instantly, if instant-spawning in creative mode is enabled.) To finish the vehicle, apply Vehicle Part items to all ghost parts, until all parts appear. If you decide not to finish a vehicle, simply whack it and it'll drop all applied parts. Once you are sure that you've applied all parts, hit the vehicle to drop it as item. If you haven't forgotten to apply any parts, the vehicle will properly drop as item, if the respective setting was enabled in your mod's configuration. You can use the finished vehicle immediately.

Exporting and importing Preset files

Share your creations with the Zora no Densha community!

Export a Preset by right-clicking it in the Model Editor and selecting "Export as file". A file will automatically be created inside of your `Zora no Densha/` directory. You can copy this file and share it with whomever you like.

Import a Preset by dropping a Preset file in your Zora no Densha/Add-Ons/ directory. After you restarted your game, the new file will be shown in the Model Editor.

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