



# Ohma Electra Locomotive

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VIEW IN BROWSER

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## Summary

Ohma Electra locomotive model files

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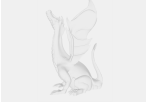



Ohma Electra is a single phase electric **locomotive** [https://nn.wikipedia.org/wiki/Ohma\\_Electra](https://nn.wikipedia.org/wiki/Ohma_Electra)

As the original drawings from 1906 only included the overall dimensions, the placement and size of features have been approximated based on other known dimensions. Details and features of the **locomotive** have been modelled as close to the real version as possible, with some approximations for dimensions where measurements proved hard to obtain. The shown result were printed on a Creality Ender 3 v2 with a 0.4mm nozzle diameter and printed at 0.12mm layer height.

The scale of the model is 1:1, so the STL will need to be scaled down to the build area when slicing. This scaling may affect the fitting tolerances somewhat. The two printed models depicted in the images folder were printed at 0.7% and 2.37% (1:42) scale. 0.7% works well for a keychain size model and from around 2-2.5% most if not all details should be printable on a budget 3D printer. Additionally, supports will be needed for many of the model parts, and post-processing to remove said supports.

Some changes to the model have been made to increase strength and make printing slightly easier, but in the interest of keeping the visual of the **locomotive**, these changes are mostly hidden when assembled. Included is the STL, STEP and Solidworks parts files, so that any required changes can be done as the model was not initially made with 3D printing in mind.

## Model files

 <b>STEP</b>		8 files
	<b>keyohma.step</b> <input type="checkbox"/> Keychain version of locomotive	
	<b>keychain.step</b>	
	<b>mainbody.step</b>	
	<b>bodyplatformaligner.step</b>	
	<b>mainplatform.step</b>	
	<b>boggie.step</b>	
	<b>axellatch.step</b>	
	<b>wheel.step</b>	



## Solidworks

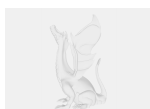
8 files



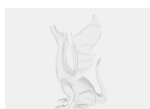
**keyohma.sldprt**



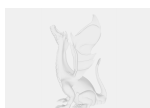
**keychain.sldprt**



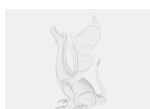
**mainbody.sldprt**



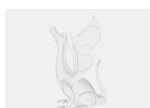
**bodyplatformaligner.sldprt**



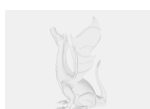
**mainplatform.sldprt**



**boggie.sldprt**



**axellatch.sldprt**



**wheel.sldprt**



## 3mf

11 files



**prettyohma.3mf**



**keyohma.3mf**



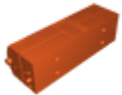
**pantograph.3mf**



**pantograph\_asm.3mf**



**keychain.3mf**



**mainbody.3mf**



**bodyplatformaligner.3mf**



**mainplatform.3mf**



**boggie.3mf**



**axellatch.3mf**



**wheel.3mf**

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