jon

Welcome to my profile! I'm a dedicated 3D model designer with several years of experience in creating functional 1:16 scale vehicle models. My goal is to bring realistic, working models to life – with as many parts as possible directly 3D printed, no special tools or machines needed. Each model is designed to: Replicate real vehicle functions Be easy to assemble and repair Stay affordable and accessible All models are tested and optimized to ensure a great balance between realism, printability, and performance. If you like my work, feel free to follow, share, or support – every bit helps me continue developing and improving new designs. Thanks for stopping by and happy printing!

My profile on YouMagine https://youmagine.com/_jon_

Compact Track Loader (D299)

1:16 Scale 3D-Printed Compact Track Loader (D299)
This 1:16 scale compact track loader has been specifically designed for 3D printing and stands out with its simple yet well-thought-out construction. Based on the original design of the D299, the model offers a realistic miniature experience, both visually and functionally.
Key Features:

- **User-Friendly Assembly:**
  The loader is designed for especially easy assembly without the need for glue. With only two different filament colors required (plus two optional colors for the rear lights), the printing process remains straightforward and efficient.
- **Screw System Instead of Glue:**
  All components are connected using standard M3 and M4 screws. This ensures stability and makes the model fully repairable and easy to disassemble.
- **Tool-Friendly Design:**
  The entire assembly can be completed using just a 2.5 mm and a 2 mm Allen key – ideal for beginners or model builders with limited tools.
- **Functionality & Performance:**
  The compact loader is fully functional and perfect for realistic, to-scale construction site scenarios.
  - **Lifting capacity without counterweight:** approx. 800 g
  - **Lifting capacity with counterweight:** over 1.2 kg
    The rubber tracks provide excellent traction and strong pushing power on almost any surface.
- **Accessories & Expandability:**
  The model comes with a bucket and a pallet fork. Additional attachments are already in development and will make the loader even more versatile in the future.

This compact track loader combines high functionality, scale realism, and a beginner-friendly design – an ideal project for model builders, RC enthusiasts, or technology lovers.

If you'd like to support me: ko-fi.com/jon_support

Technical information

To ensure a successful and functional assembly of the compact track loader, the following print specifications must be observed:
Print Bed & Material:

- **Minimum print bed size:** 220 mm x 220 mm

Recommended Filament:

- **PETG** for a good balance between stability and ease of printing
- **ABS or ASA** for greater heat resistance and durability in outdoor use

Print Settings:

- **Wall thickness:** At least 2 mm for sufficient stability
- **Infill:** Minimum of 20%; higher infill is recommended depending on the required load capacity

Important Printing Notes:

- When printing the loader arms, the integrated cable channel must remain free of support structures!
  ➤ In your slicer, set the **Support Overhang Angle** to **above 72 degrees** to avoid unwanted supports.
- **No multi-color printer required**

Important: Pay attention to part orientation!
Since the STL files are not pre-sliced, it's crucial to follow the intended print orientation.
➤ All parts are designed for a specific orientation on the print bed to ensure optimal stability, functionality, and minimal post-processing.

Printable files (38)

#	Filename	Material	Layer Height	Wall thickness	Infill	Support	Adhesion	Color
1	yellow parts-weight_L.stl yellow parts-weight_L.stl 174 KB	PETG	0.2	2	100 / Grid	Yes	No	

#	Filename	Material	Layer Height	Wall thickness	Infill	Support	Adhesion	Color
2	yellow parts-weight_R.stl yellow parts-weight_R.stl 174 KB	PETG	0.2	2	100 / Grid	Yes	No	
3	yellow parts-wheel L1.stl yellow parts-wheel L1.stl 441 KB	PETG	0.2	2	40 / Grid	Yes	No	
4	yellow parts-wheel L1.stl yellow parts-wheel L1.stl 441 KB	PETG	0.2	2	40 / Grid	Yes	No	
5	yellow parts-wheel L2.stl yellow parts-wheel L2.stl 441 KB	PETG	0.2	2	40 / Grid	Yes	No	
6	yellow parts-wheel R1.stl yellow parts-wheel R1.stl 441 KB	PETG	0.2	2	40 / Grid	Yes	No	
7	pallet fork-fork 0.2mm.stl pallet fork-fork 0.2mm.stl 35.9 KB		-	-	-			
8	pallet fork-fork 0.3mm.stl pallet fork-fork 0.3mm.stl 33.2 KB		-	-	-			
9	pallet fork-fork stop_L.stl pallet fork-fork stop_L.stl 36.6 KB		-	-	-			
10	pallet fork-fork stop_R.stl pallet fork-fork stop_R.stl 36.6 KB		-	-	-			
11	pallet fork-fork_base.stl pallet fork-fork_base.stl 270 KB		-	-	-			
12	black parts-arm joint heck L.stl black parts-arm joint heck L.stl 83.8 KB	PETG	0.2	2	100 / Grid	Yes	No	
13	black parts-arm joint heck R.stl black parts-arm joint heck R.stl 83.8 KB	PETG	0.2	2	100 / Grid	Yes	No	
14	black parts-bucket_coupler_L.stl black parts-bucket_coupler_L.stl 106 KB	PETG	0.2	2	100 / Grid	Yes	No	
15	yellow parts-body_R.stl yellow parts-body_R.stl 331 KB	PETG	0.2	2	100 / Grid	Yes	No	
16	black parts-bucket_coupler_R.stl black parts-bucket_coupler_R.stl 89.2 KB	PETG	0.2	2	100 / Grid	Yes	No	
17	black parts-bucket_sand.stl black parts-bucket_sand.stl 51.4 KB	PETG	0.2	2	40 / Grid	Yes	No	

#	Filename	Material	Layer Height	Wall thickness	Infill	Support	Adhesion	Color
18	black parts-cabin.stl black parts-cabin.stl 1.47 MB	PETG	0.2	2	20 / Grid	Yes	No	
19	black parts-exhaust.stl black parts-exhaust.stl 898 KB	PETG	0.2	2	100 / Grid	Yes	No	
20	black parts-vent_1.stl black parts-vent_1.stl 51.3 KB	PETG	0.2	2	100 / Grid	Yes	No	
21	black parts-vent_2.stl black parts-vent_2.stl 55.4 KB	PETG	0.2	2	100 / Grid	Yes	No	
22	lights-light_red.stl lights-light_red.stl 365 KB	PETG	0.2	2	20 / Grid	Yes	No	
23	lights-light_red_2.stl lights-light_red_2.stl 365 KB	PETG	0.2	2	20 / Grid	Yes	No	
24	lights-light_white.stl lights-light_white.stl 286 KB	PETG	0.2	2	20 / Grid	Yes	No	
25	lights-light_white_1.stl lights-light_white_1.stl 288 KB	PETG	0.2	2	20 / Grid	Yes	No	
26	yellow parts-arm_L.stl yellow parts-arm_L.stl 581 KB	PETG	0.2	2	40 / Grid	Yes	No	
27	yellow parts-arm_lifter_L.stl yellow parts-arm_lifter_L.stl 34.5 KB	PETG	0.2	2	100 / Grid	Yes	No	
28	yellow parts-arm_lifter_R.stl yellow parts-arm_lifter_R.stl 34.5 KB	PETG	0.2	2	100 / Grid	Yes	No	
29	yellow parts-arm_R.stl yellow parts-arm_R.stl 580 KB	PETG	0.2	2	40 / Grid	Yes	No	
30	yellow parts-body_L.stl yellow parts-body_L.stl 345 KB	PETG	0.2	2	100 / Grid	Yes	No	
31	yellow parts-ESC_holder.stl yellow parts-ESC_holder.stl 37.9 KB	PETG	0.2	2	100 / Grid	Yes	No	
32	yellow parts-motor_wheel_L.stl yellow parts-motor_wheel_L.stl 520 KB	PETG	0.2	2	40 / Grid	Yes	No	
33	yellow parts-motor_wheel_R.stl yellow parts-motor_wheel_R.stl 520 KB	PETG	0.2	2	40 / Grid	Yes	No	

#	Filename	Material	Layer Height	Wall thickness	Infill	Support	Adhesion	Color
34	yellow parts-wheel R2.stl yellow parts-wheel R2.stl 441 KB	PETG	0.2	2	40 / Grid	Yes	No	
35	yellow parts-rear_part_L.stl yellow parts-rear_part_L.stl 223 KB	PETG	0.2	2	40 / Grid	Yes	No	
36	yellow parts-rear_part_R.stl yellow parts-rear_part_R.stl 224 KB	PETG	0.2	2	40 / Grid	Yes	No	
37	yellow parts-wheel_cart_L.stl yellow parts-wheel_cart_L.stl 270 KB	PETG	0.2	2	40 / Grid	Yes	No	
38	yellow parts-wheel_cart_R.stl yellow parts-wheel_cart_R.stl 270 KB	PETG	0.2	2	40 / Grid	Yes	No	

Use YouMagine Workbench to manage printing statuses in a more interactive and convenient way.

QR Code

Use camera to navigate to the product page with this QR code