DIN-Rail 3D Printer

With a HUGE 36" × 36" Build Area

Written By: TGit-Tech (02/2018)

Feel free to use: no strings attached (text content only / images respectfully referenced)

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Place Master Picture here

*** PROJECT IS INCOMPLETE - PLEASE CHECK BACK LATER ***

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1. INTRODUCTION

The "DIN-Rail 3D Printer" project's goal is to provide a cheap solution to very large 3D printing ability. It will use 1-Meter 35mm DIN Rails.

- ✓ The project implements
 - o Z-Mobile CoreXY
- ✓ The project consists of:

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- ✓ The project is Open Source and its main page Resides at: https://github.com/TGit-Tech/DIN-Rail-3D-Printer
 - © Releases (All Finalized Plans, Files and Documentation) can be downloaded at:
 - o This document (most recent version) can be seen at:

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A. Materials (\$369.50)

- √ Framing (\$ 258.73)
 - (20) Steel DIN Rails 35mm W x 15mm H x 1M Length (DN-R35HS1) \$49.50/10pcs = \$99
 - https://www.automationdirect.com/adc/Shopping/Catalog/Enclosures -z- Subpanels -z- Thermal Management -z- Lighting/Enclosure Parts -a-Accessories/Internal Component Mounting Accessories/DIN Rails/DN-R35HS1
 - (1) Aluminum Build Plate (36" x 36" x 0.188 (3/16")) Mill Finish 6061 \$120.00 + \$18 Shipping = \$138
 - https://www.ebay.com/itm/272758454805
 - o (4) Imperial 12650 Metric Threaded Rod M6-1.00x1M (Pack of 5) \$15.81 + \$5.92 Shipping = \$21.73
 - https://www.amazon.com/gp/product/B001G4512Q
- √ Fasteners
 - (16) #10-24 x 1-1/2" Machine Screws Slide Rails(8) M3*16mm Machine Screws Y-Motors
 - (2) #4-40 x 1" Machine Screws & Nuts Gantry-Corner Rail Bearings
- **✓** Bearings (\$3.55)
 - (20) V-Groove Bearings, Model 603ZZ, 3x12x4mm, Wire Pulley (20PCS (\$0.18/ea)) \$3.55
 - Link https://www.aliexpress.com/item/20pcs-set-Professional-Bearing-set-hardware-tools-3-12-4mm-Model-603ZZ-Wire-pulley-with-V/32800396977.html
- ✓ Electronics (\$98.70)
 - (10) Nema-17, 2-Phase 1.8-Deg, 3.96V, 0.9A, 4.4Ohm, 5mm Shaft, 42-Stepper Motor \$9.87/ea = \$98.70
 - Holding Torque 0.34Nm, 48oz.in, 0.25lb.ft, 34N.cm, 3467g.cm, 0.0346kg.m, 3.467kg.cm
 - Product Weight 0.2610kg, Size 3.5x4x4cm (1.38"x1.57"x1.57")
 - https://www.gearbest.com/3d-printer-parts/pp_540282.html
- √ 3D-Prints (\$12.07)

୍ (4) BoltBlock	52g/ea	208g	\$3.90
୍ (4) BuildPlate-DINS-InnerCorners	49g/ea	196g	\$3.67
୍ (2) CoreXY-Gantry-Corner	60g/each	120g	\$2.25
(2) CoreXY-Gantry-Corner-Opposite	60g/each	120g	\$2.25