

HOLP



History of LulzBot Printers

History of LulzBot Printers

by Aleph Objects, Inc.

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Contents

Introduction	
HOLP	vii
Free Software, Libre Innovation, Open Source Hardware	viii
1 LulzBot Clonedel	
Repstrap	9
1.1 LulzBot Clonedel Molds	10
1.2 LulzBot Clonedel Mars P4	10
1.3 LulzBot Clonedel Mars P5	10
1.4 LulzBot Clonedel Mars P6	16
1.5 LulzBot Clonedel Mars P7	16
1.6 LulzBot Clonedel Mars P8	16
1.7 LulzBot Clonedel Mars P9	16
1.8 LulzBot Clonedel Mars P10	18
1.9 LulzBot Clonedel Mars P11	18
1.10 LulzBot Clonedel Mars P12	18
1.11 LulzBot Clonedel Mars P13	18
1.12 LulzBot Clonedel Mars P14	21
2 LulzBot Prusa 1.0, 2.0	
Mustaches, Monocles, & Other Sundry Items	23
2.1 LulzBot Prusa 1.0	24
2.2 LulzBot Prusa 2.0	24
3 LulzBot AO-100, AO-101	
Print More	33
3.1 LulzBot AO-100	34
3.2 LulzBot AO-101	34
4 LulzBot TAZ 1, 2, 3, 4, 5	
100+ Node Cluster Printing Itself	41

CONTENTS

4.1	LulzBot TAZ-1	42
5	LulzBot Mini	
Moar	45	
5.1	LulzBot Mini-1	46
6	3D Printer Cluster	
Moar Makes Moar	47	
6.1	LulzBot 3D Printer Cluster	48
7	Contact	
Phone, Email, Web, Location	51	
7.1	Support	52
7.2	Sales	52
7.3	Website	52

List of Figures

1.1 LulzBot Clonedels	10
1.2 LulzBot Clonedel production ping pong table	11
1.3 LulzBot Clonedel gears in the silicon mold	11
1.4 LulzBot Clonedel molded parts	12
1.5 LulzBot Clonedel molded gears	12
1.6 LulzBot Clonedel Mars P4 Front	13
1.7 LulzBot Clonedel Mars P4 Top	13
1.8 LulzBot Clonedel Mars P4 Bottom	14
1.9 LulzBot Clonedel Mars P4 Top Right	14
1.10 LulzBot Clonedel Mars P4 Top Left	15
1.11 LulzBot Clonedel Mars P5 Front	15
1.12 LulzBot Clonedel Mars P6 Front	16
1.13 LulzBot Clonedel Mars P7 Front	17
1.14 LulzBot Clonedel Mars P8 Front	17
1.15 LulzBot Clonedel Mars P9 Front	18
1.16 LulzBot Clonedel Mars P10 Front	19
1.17 LulzBot Clonedel Mars P11 Front	19
1.18 LulzBot Clonedel Mars P12 Front	20
1.19 LulzBot Clonedel Mars P13 Front	20
1.20 LulzBot Clonedel Mars P14 Front	21
2.1 LulzBot Prusas	24
2.2 LulzBot Prusa 1.0 Front	25
2.3 LulzBot Prusa 1.0 Back	25
2.4 LulzBot Prusa 1.0 Electronics	26
2.5 LulzBot Prusa 1.0 Extruder	26
2.6 LulzBot Prusa 1.0 Heatbed	27
2.7 LulzBot Prusa 1.0 Y Belt	27
2.8 LulzBot Prusa 1.0 X End	28
2.9 LulzBot Prusa 2.0 Front with Octopus	28
2.10 LulzBot Prusa 2.0 Bed	29
2.11 LulzBot Prusa 2.0 Bottom	29
2.12 LulzBot Prusa 2.0 Electronics	30
2.13 LulzBot Prusa 2.0 Extruder	30

List of Figures

2.14 LulzBot Prusa 2.0 Mount	31
2.15 LulzBot Prusa 2.0 Panel	31
3.1 LulzBot AO-100 Front	34
3.2 LulzBot AO-100 Front Left	35
3.3 LulzBot AO-100 Back	35
3.4 LulzBot AO-100 Bottom	36
3.5 LulzBot AO-100 Front Left	36
3.6 LulzBot AO-100 Front Right	37
3.7 LulzBot AO-100	37
3.8 LulzBot AO-101	38
3.9 LulzBot AO-101 Front	38
3.10 LulzBot AO-101 Back	39
3.11 LulzBot AO-101 Extruder	39
3.12 LulzBot AO-101 Heatbed	40
4.1 LulzBot TAZ-1	42
4.2 LulzBot TAZ-1 Front Left	43
4.3 LulzBot TAZ-1 with Vase	43
4.4 LulzBot TAZ-1 with Octopus	44
4.5 LulzBot TAZ-1 Max Build Volume	44
5.1 LulzBot Mini-1	46
6.1 LulzBot 3D Printer Cluster of 2 Clonedels, June, 2011	48
6.2 LulzBot 3D Printer Cluster of 2 Clonedels Closeup	49
6.3 LulzBot 3D Printer Cluster of 19 Clonedels, October, 2011	49
6.4 LulzBot 3D Printer Cluster of 19 Prusas, December, 2011	50
6.5 LulzBot 3D Printer Cluster of 28 AO-100s, July, 2012	50

Introduction

HOLP

Free Software, Libre Innovation, Open Source Hardware

Aleph Objects, Inc. is a Free Software, Libre Innovation, and Open Source Hardware company based in Loveland, Colorado, USA. Aleph Objects manufactures the LulzBot line of 3D printers, sold worldwide.

This document outlines the History of LulzBot Printers (HOLP). HOPE and HELP. HOLP.

LulzBot Clonedel

Repstrap



Figure 1.1: LulzBot Clonedels

LulzBot Clonedels were made from silicon molds purchased (PO00077) from Metrix Createspace on February 23, 2011. Eleven or more units were made, starting with “Mars P4”. The Clonedels printed the subsequent LulzBot Prusas. Units through “P64” had some Clonedel parts.

1.1 LulzBot Clonedel Molds

The LulzBot Clonedel parts themselves were primarily poured from silicon molds.

1.2 LulzBot Clonedel Mars P4

LulzBot Clonedel Mars P4.

1.3 LulzBot Clonedel Mars P5

LulzBot Clonedel Mars P5.

1.3. LULZBOT CLONEDEL MARS P5



Figure 1.2: LulzBot Clonedel production ping pong table



Figure 1.3: LulzBot Clonedel gears in the silicon mold

LulzBot Clonedel



Figure 1.4: LulzBot Clonedel molded parts



Figure 1.5: LulzBot Clonedel molded gears

1.3. LULZBOT CLONEDEL MARS P5

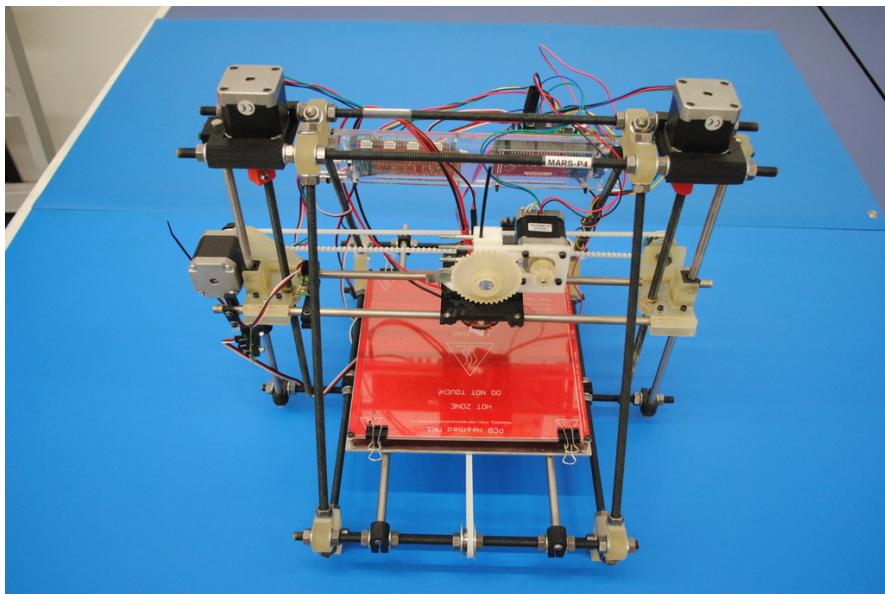


Figure 1.6: LulzBot Clonedel Mars P4 Front

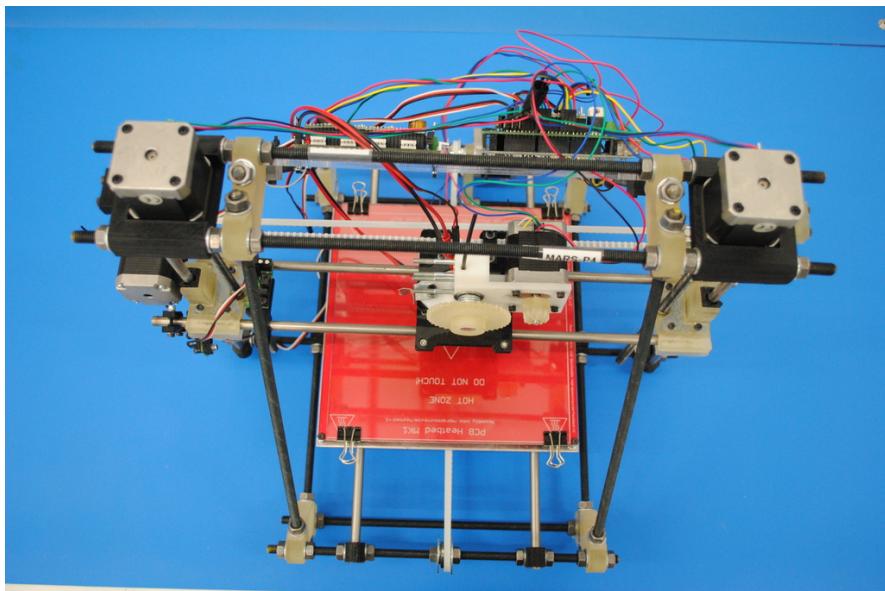


Figure 1.7: LulzBot Clonedel Mars P4 Top

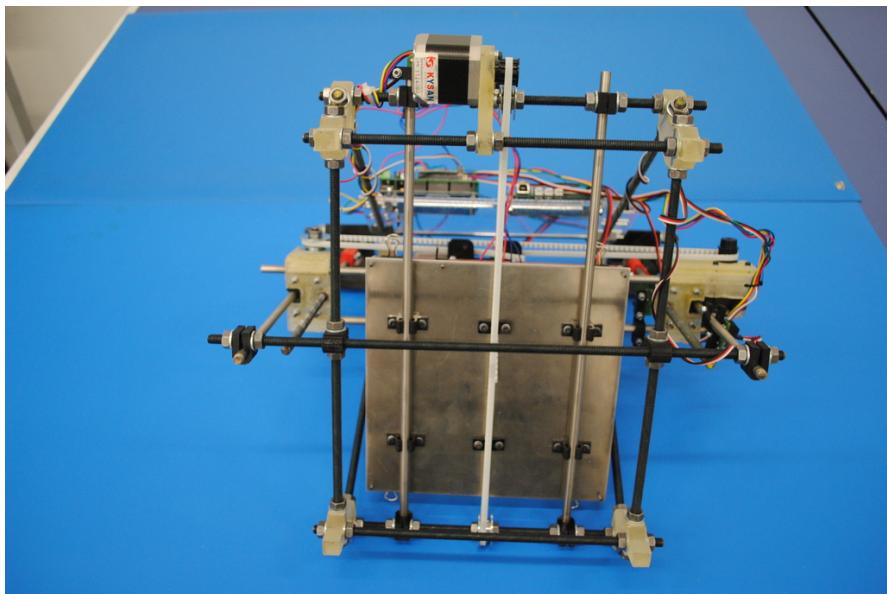


Figure 1.8: LulzBot Clonedel Mars P4 Bottom

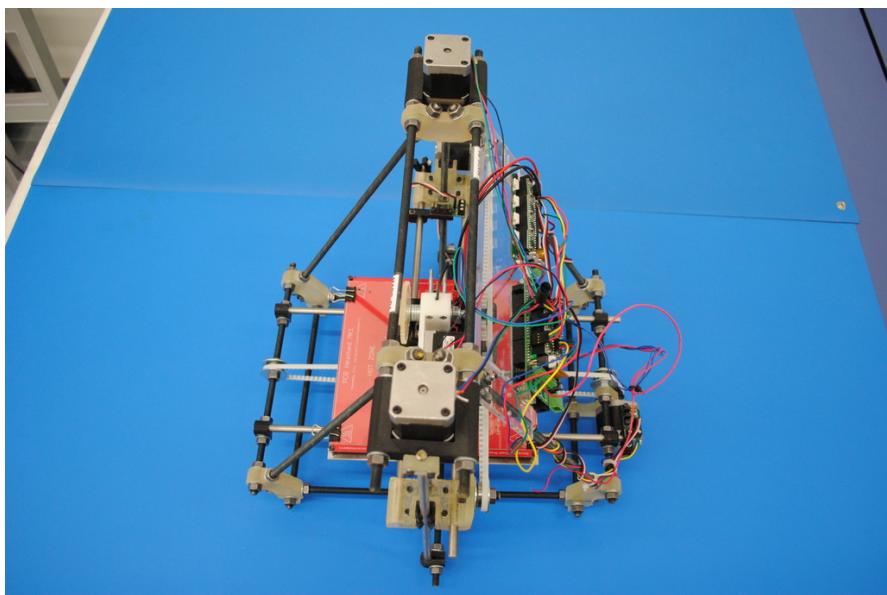


Figure 1.9: LulzBot Clonedel Mars P4 Top Right

1.3. LULZBOT CLONEDEL MARS P5

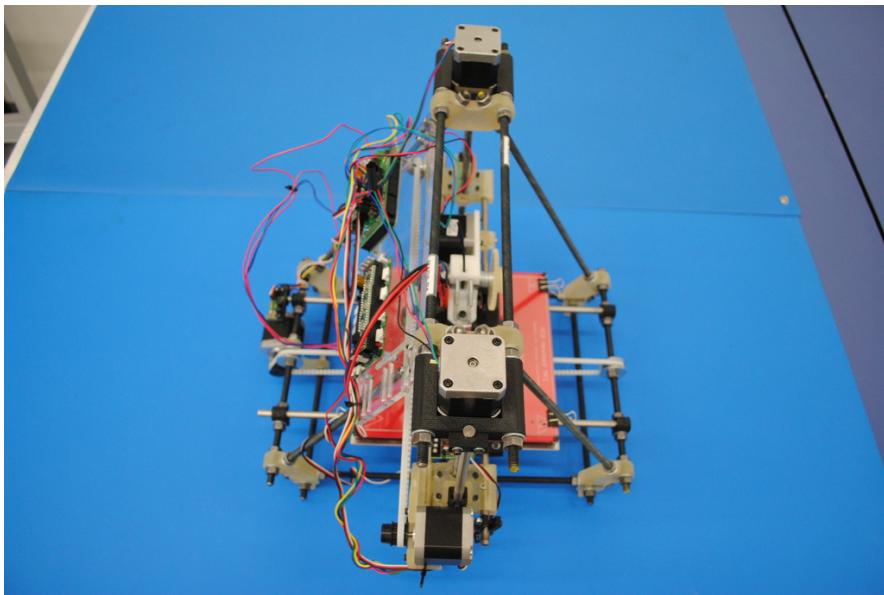


Figure 1.10: LulzBot Clonedel Mars P4 Top Left

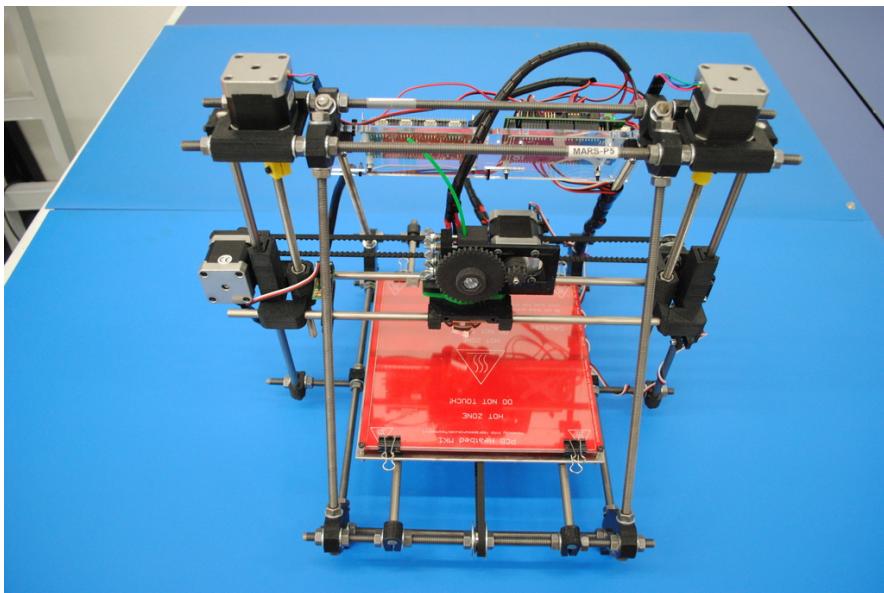


Figure 1.11: LulzBot Clonedel Mars P5 Front

1.4 LulzBot Clonedel Mars P6

LulzBot Clonedel Mars P6.

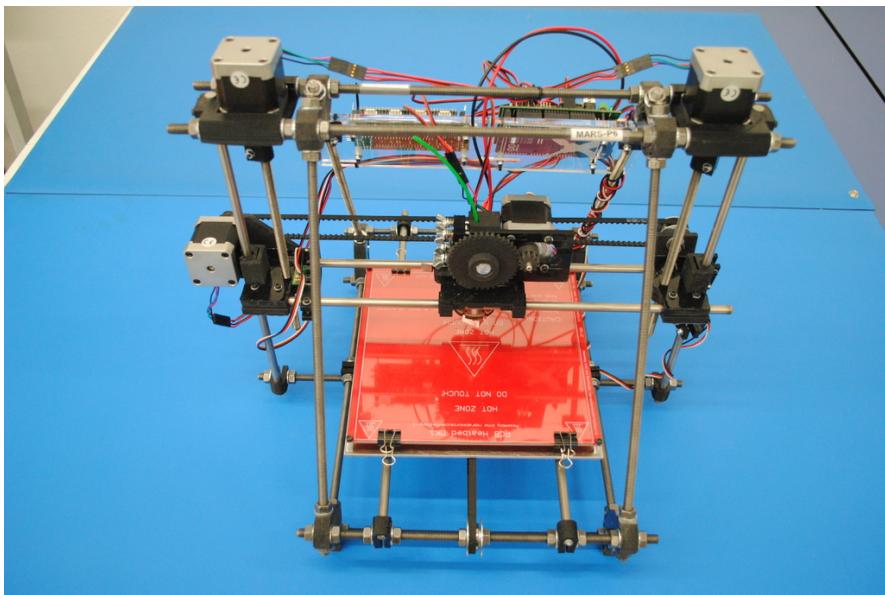


Figure 1.12: LulzBot Clonedel Mars P6 Front

1.5 LulzBot Clonedel Mars P7

LulzBot Clonedel Mars P7.

1.6 LulzBot Clonedel Mars P8

LulzBot Clonedel Mars P8.

1.7 LulzBot Clonedel Mars P9

LulzBot Clonedel Mars P9.

1.7. LULZBOT CLONEDEL MARS P9

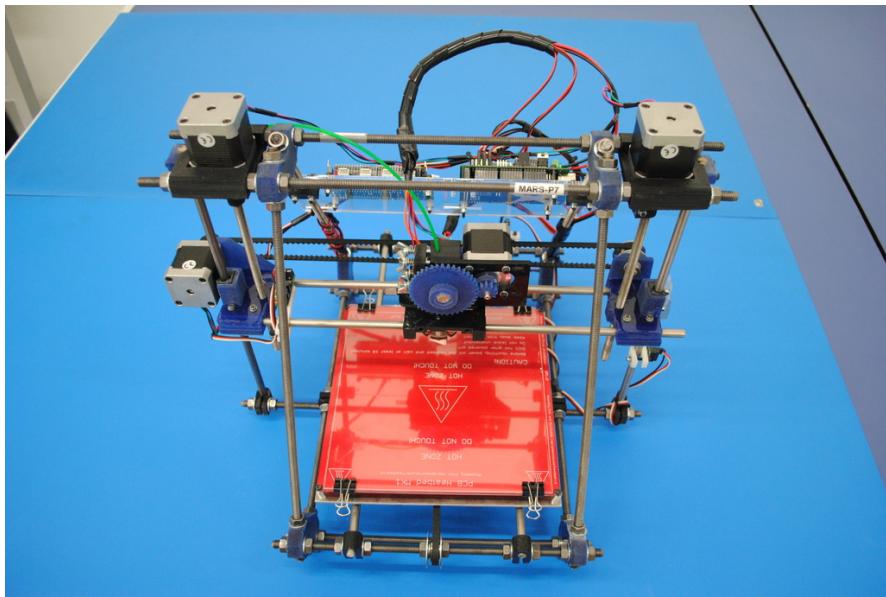


Figure 1.13: LulzBot Clonedel Mars P7 Front

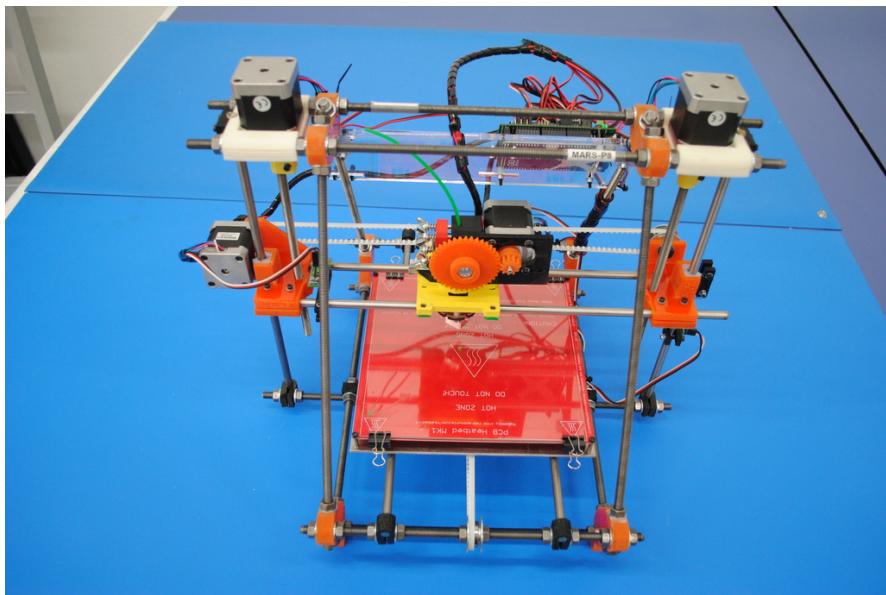


Figure 1.14: LulzBot Clonedel Mars P8 Front

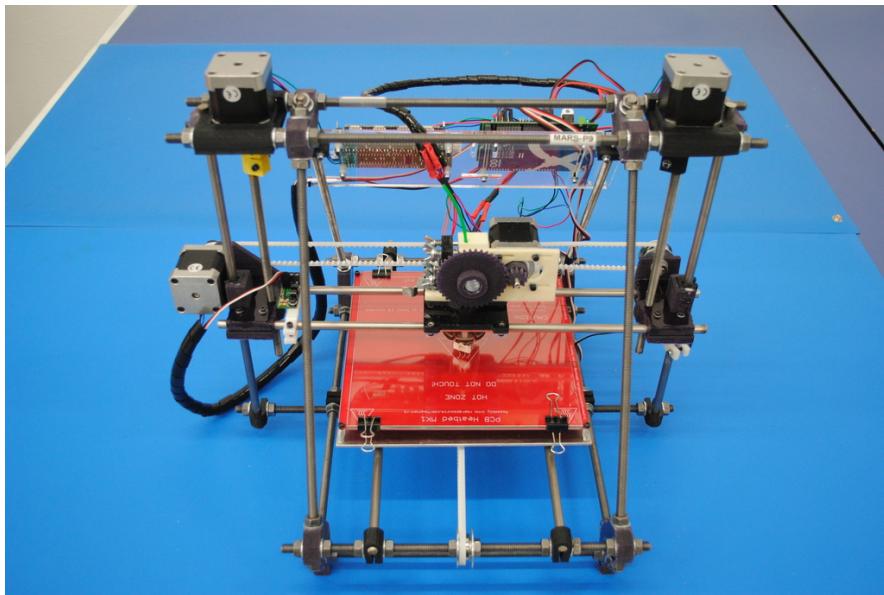


Figure 1.15: LulzBot Clonedel Mars P9 Front

1.8 LulzBot Clonedel Mars P10

LulzBot Clonedel Mars P10.

1.9 LulzBot Clonedel Mars P11

LulzBot Clonedel Mars P11.

1.10 LulzBot Clonedel Mars P12

LulzBot Clonedel Mars P12.

1.11 LulzBot Clonedel Mars P13

LulzBot Clonedel Mars P13.

1.11. LULZBOT CLONEDEL MARS P13

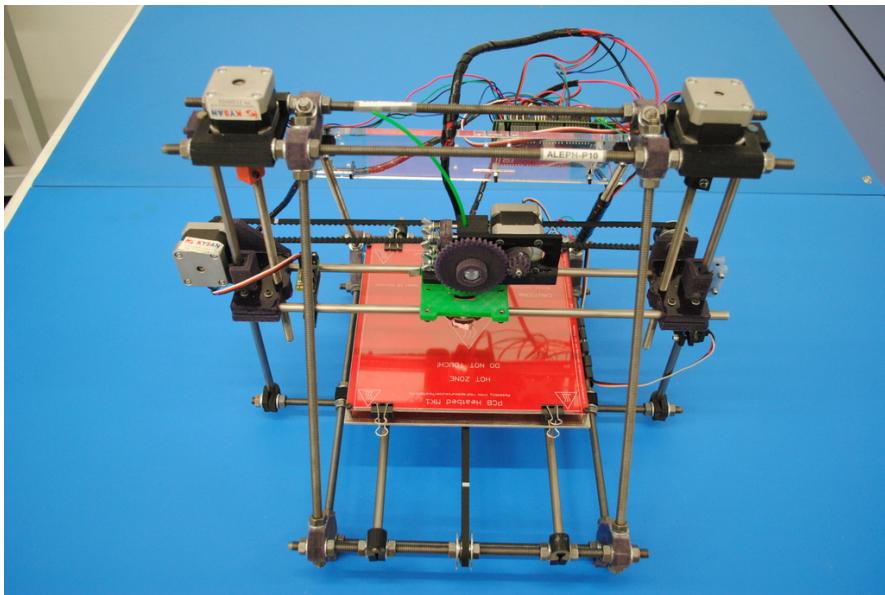


Figure 1.16: LulzBot Clonedel Mars P10 Front

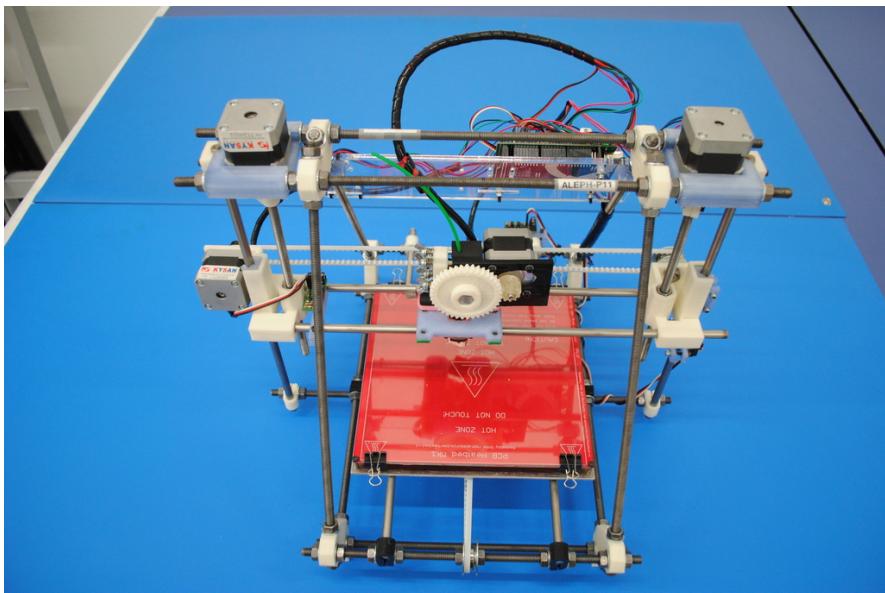


Figure 1.17: LulzBot Clonedel Mars P11 Front

LulzBot Clonedel

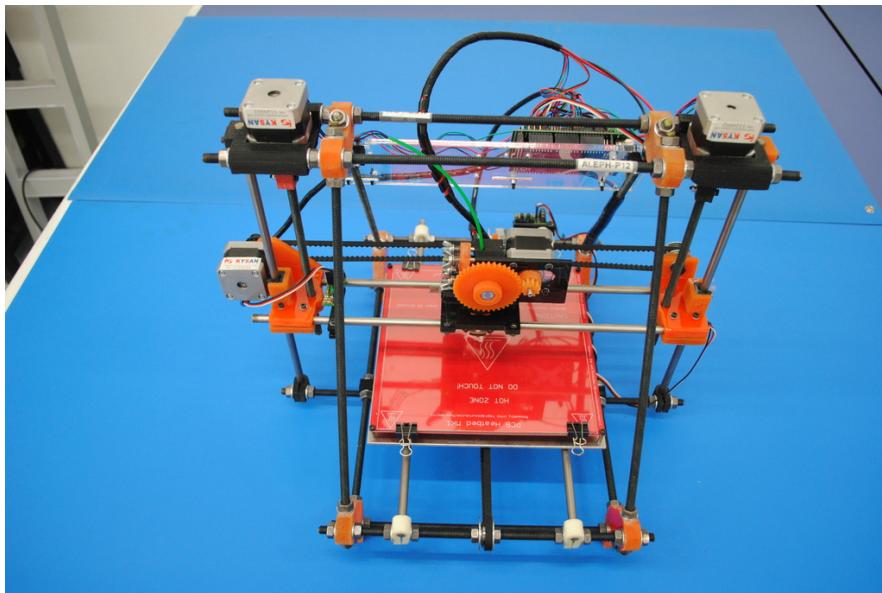


Figure 1.18: LulzBot Clonedel Mars P12 Front

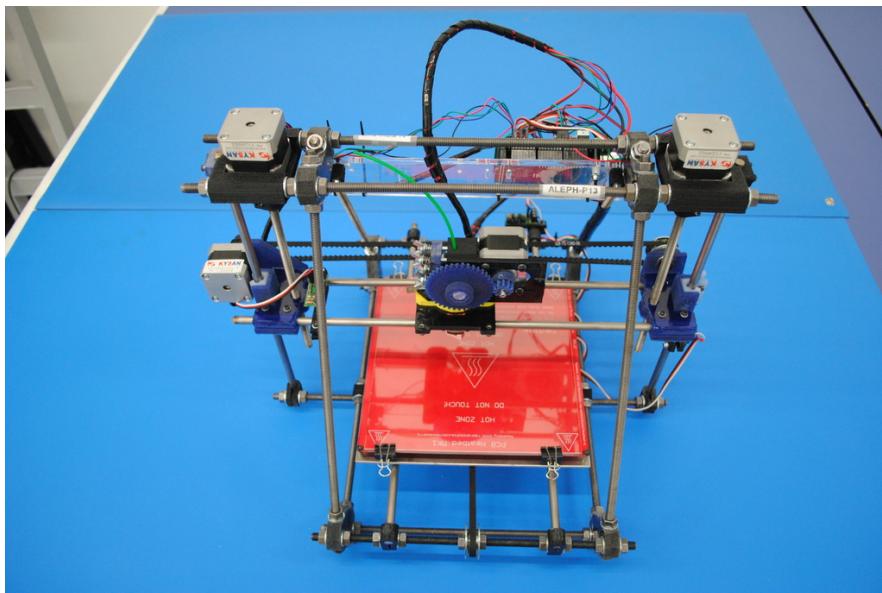


Figure 1.19: LulzBot Clonedel Mars P13 Front

1.12 LulzBot Clonedel Mars P14

LulzBot Clonedel Mars P14.

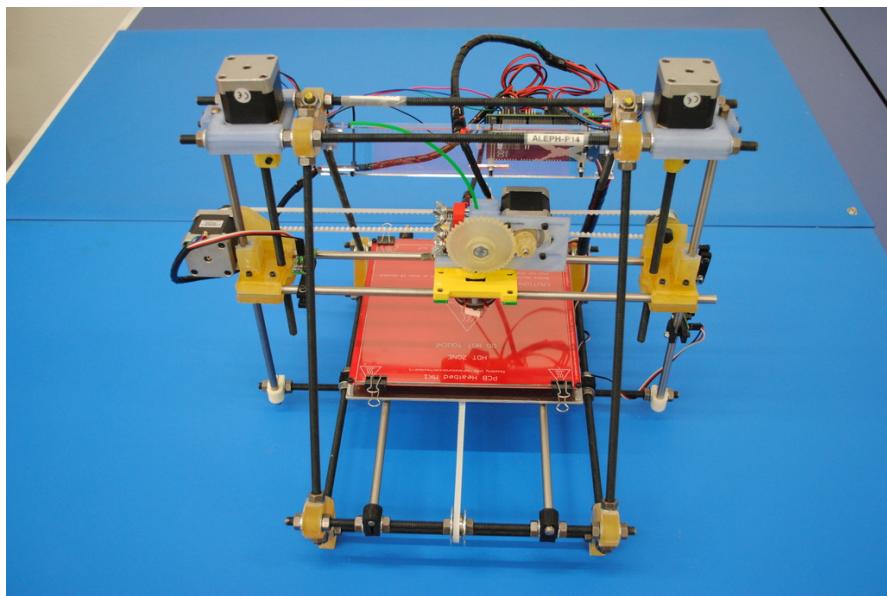


Figure 1.20: LulzBot Clonedel Mars P14 Front

LulzBot Prusa 1.0, 2.0

Mustaches, Monocles, & Other

Sundry Items



Figure 2.1: LulzBot Prusas

The LulzBot Prusas were based on the Prusa Mendel design. The Prusas printed more Prusas and they printed the LulzBot AO-100s. Approximately 128 Prusas were built. Prusa Version 1.0 production started in the first quarter of 2011. Version 2.0 production started in the second quarter of 2011.

2.1 LulzBot Prusa 1.0

LulzBot Prusa 1.0.

2.2 LulzBot Prusa 2.0

LulzBot Prusa 2.0.

2.2. LULZBOT PRUSA 2.0

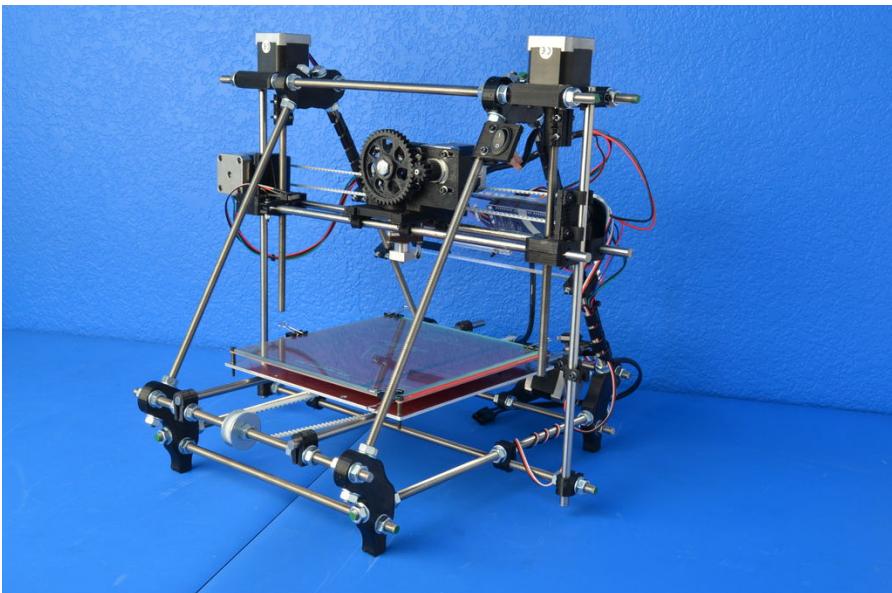


Figure 2.2: LulzBot Prusa 1.0 Front

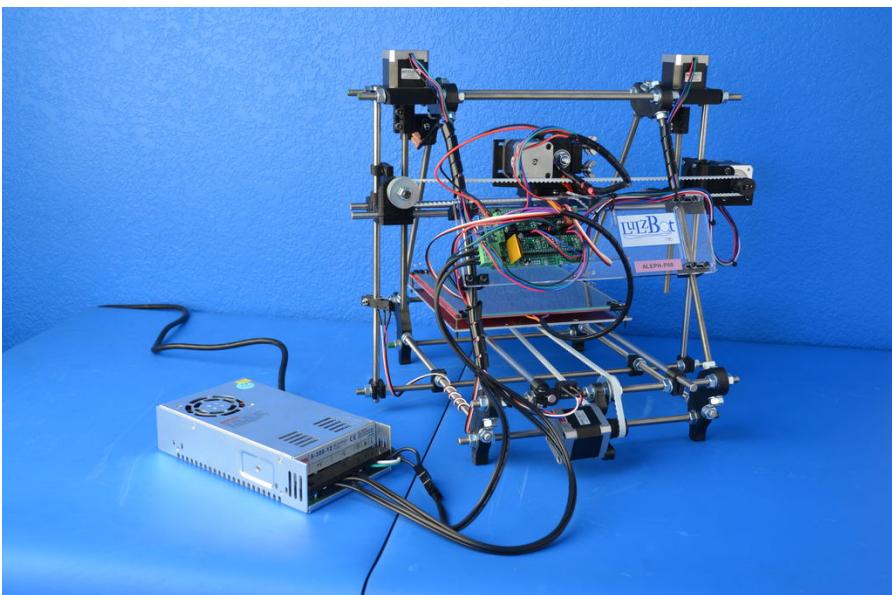


Figure 2.3: LulzBot Prusa 1.0 Back

LulzBot Prusa 1.0, 2.0

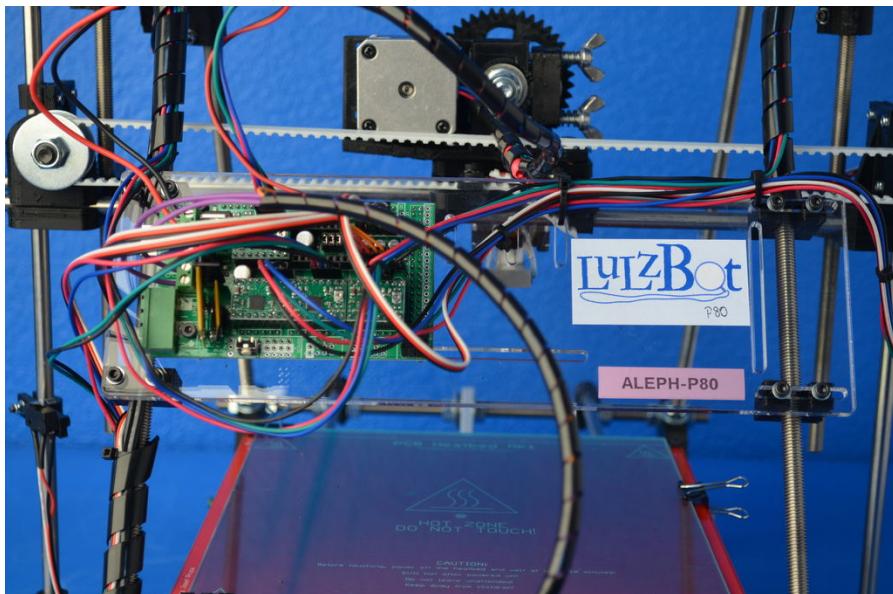


Figure 2.4: LulzBot Prusa 1.0 Electronics

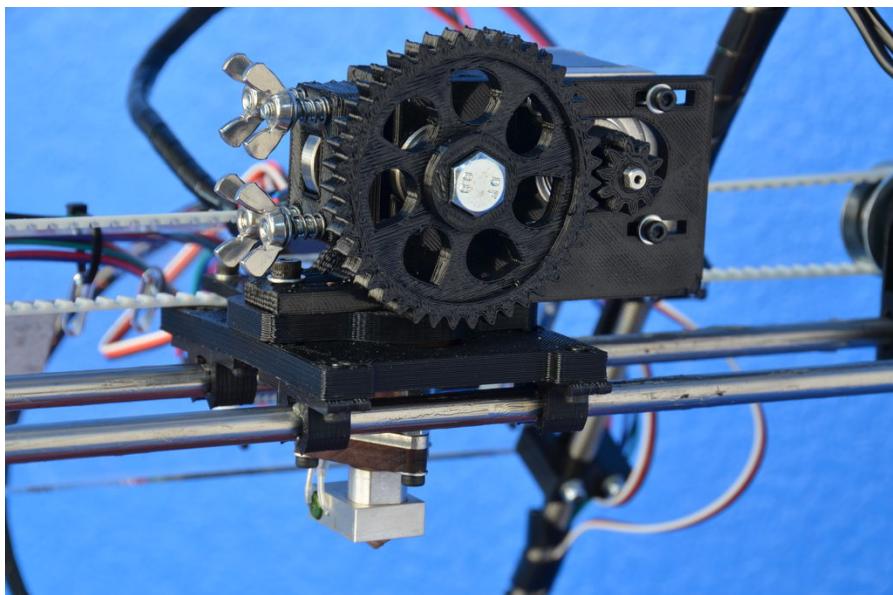


Figure 2.5: LulzBot Prusa 1.0 Extruder

2.2. LULZBOT PRUSA 2.0

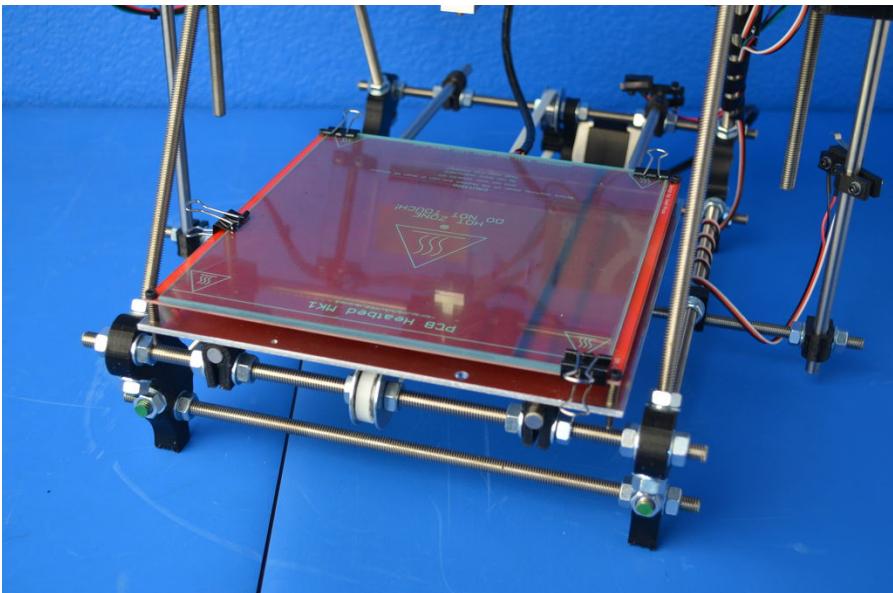


Figure 2.6: LulzBot Prusa 1.0 Heatbed

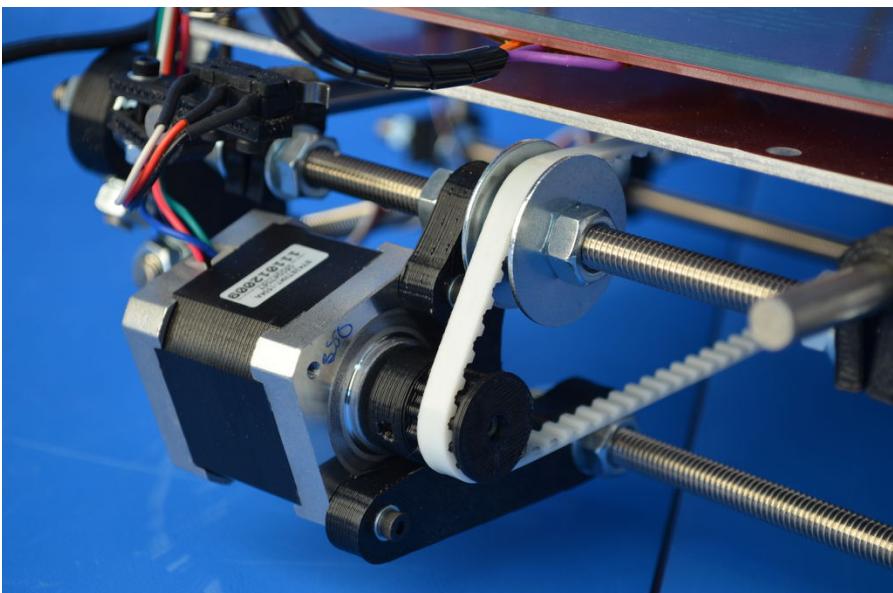


Figure 2.7: LulzBot Prusa 1.0 Y Belt

LulzBot Prusa 1.0, 2.0

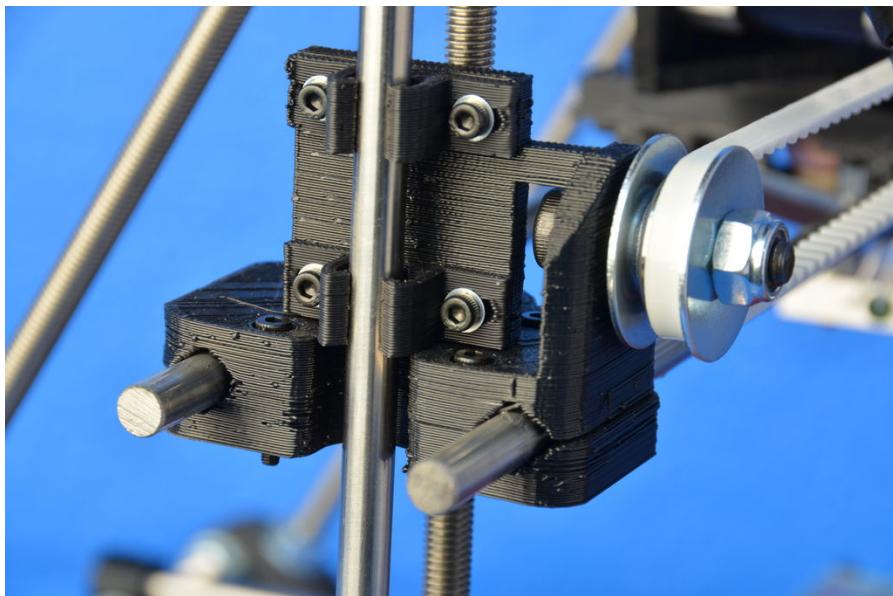


Figure 2.8: LulzBot Prusa 1.0 X End

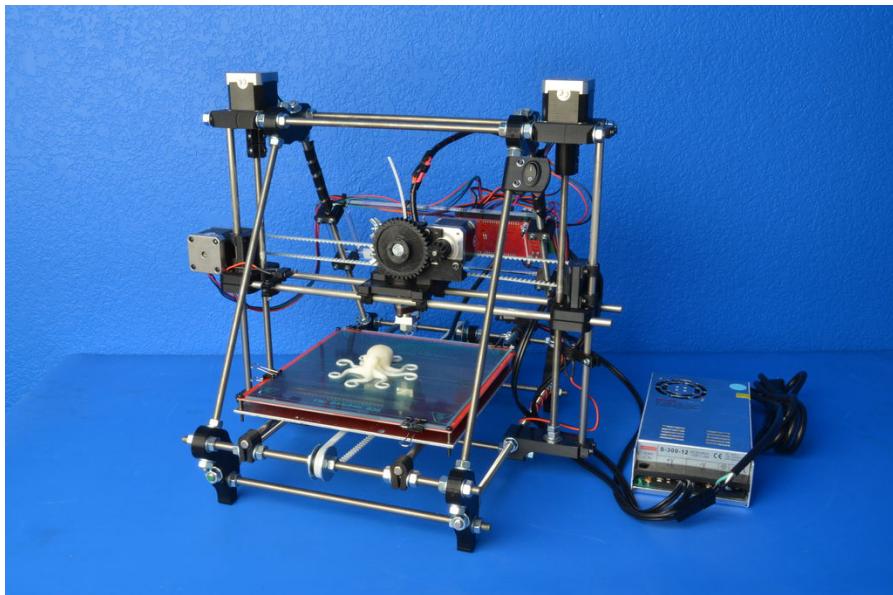


Figure 2.9: LulzBot Prusa 2.0 Front with Octopus

2.2. LULZBOT PRUSA 2.0

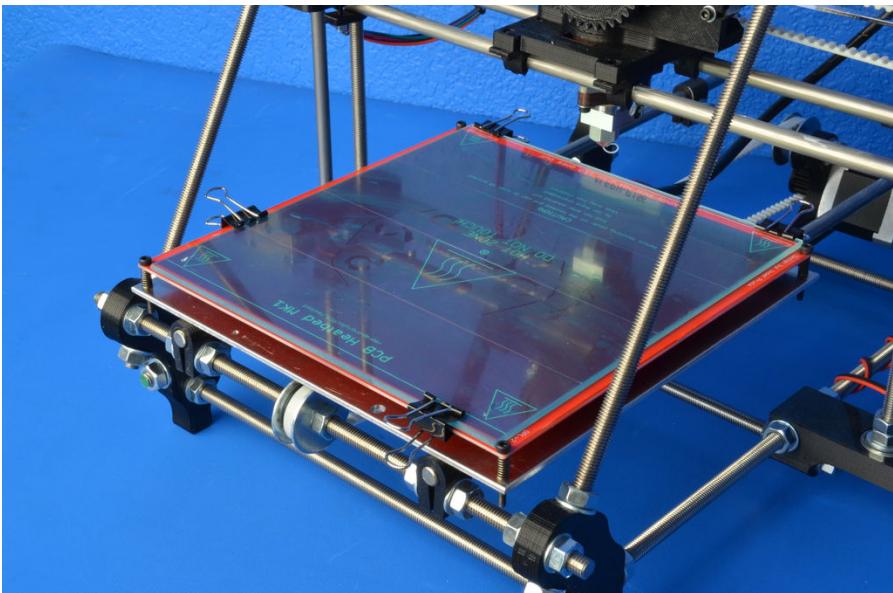


Figure 2.10: LulzBot Prusa 2.0 Bed

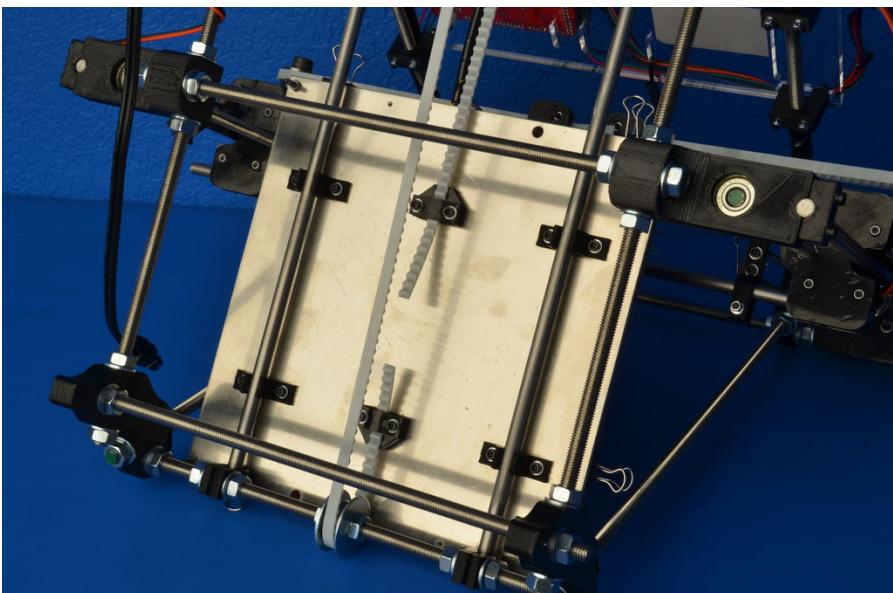


Figure 2.11: LulzBot Prusa 2.0 Bottom

LulzBot Prusa 1.0, 2.0

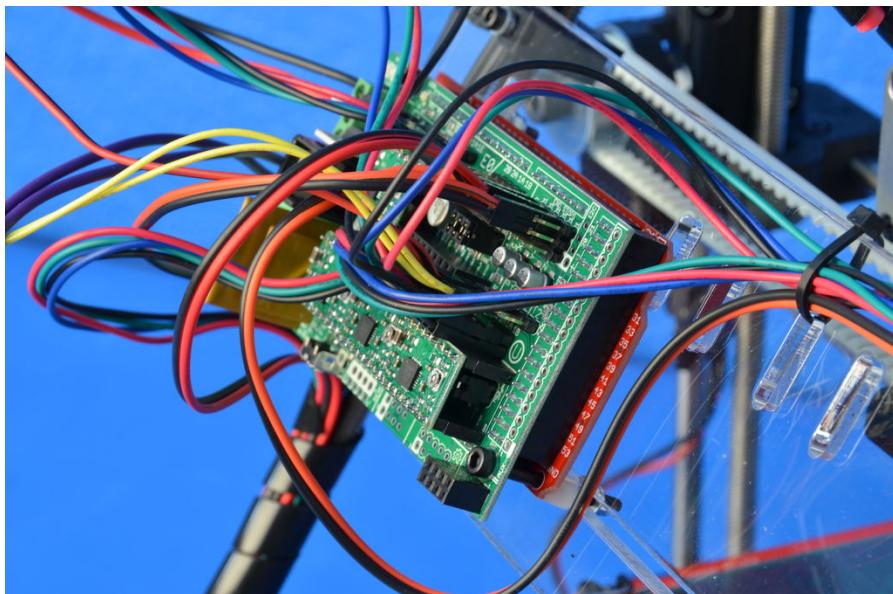


Figure 2.12: LulzBot Prusa 2.0 Electronics

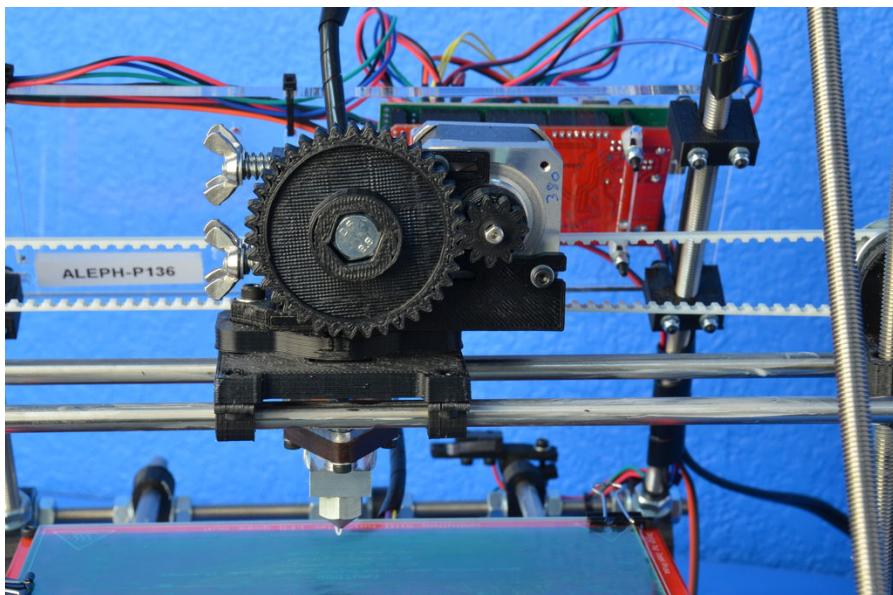


Figure 2.13: LulzBot Prusa 2.0 Extruder

2.2. LULZBOT PRUSA 2.0

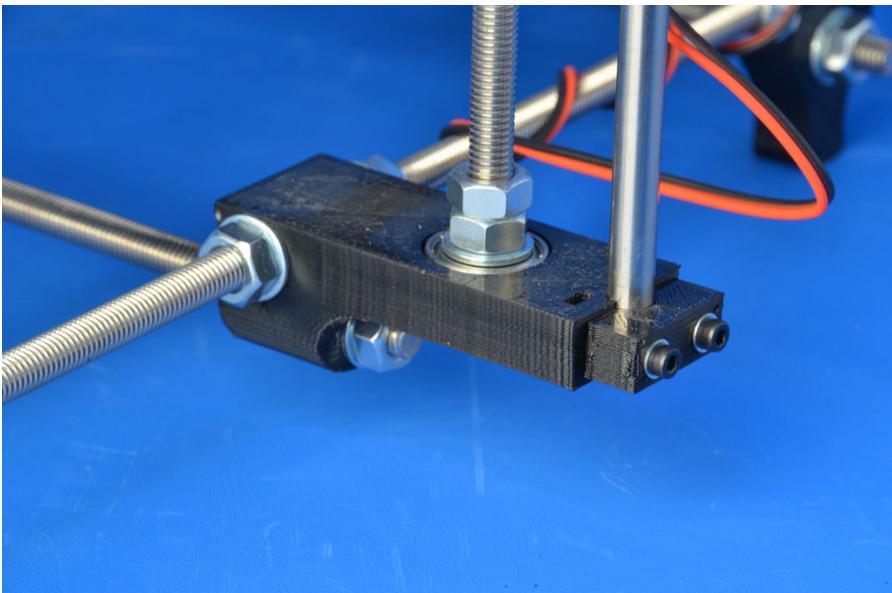


Figure 2.14: LulzBot Prusa 2.0 Mount

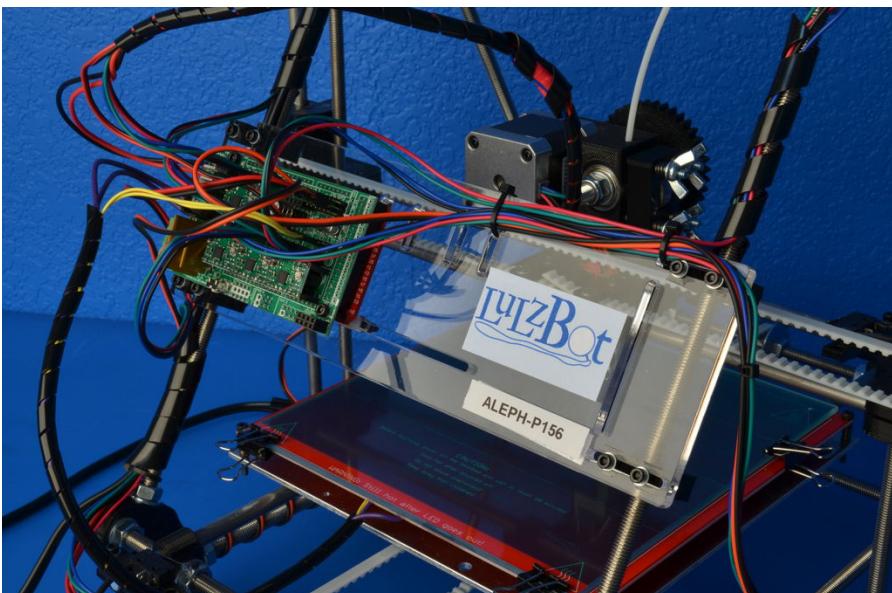


Figure 2.15: LulzBot Prusa 2.0 Panel

LulzBot AO-100, AO-101

Print More

The LulzBot AO-100 and AO-101s were based on the MendelMax design. The AOs printed more AOs and they printed the LulzBot TAZ. Approximately 750 AOs were built. The AO-100 production started in the first quarter of 2012.

3.1 LulzBot AO-100

LulzBot AO-100.

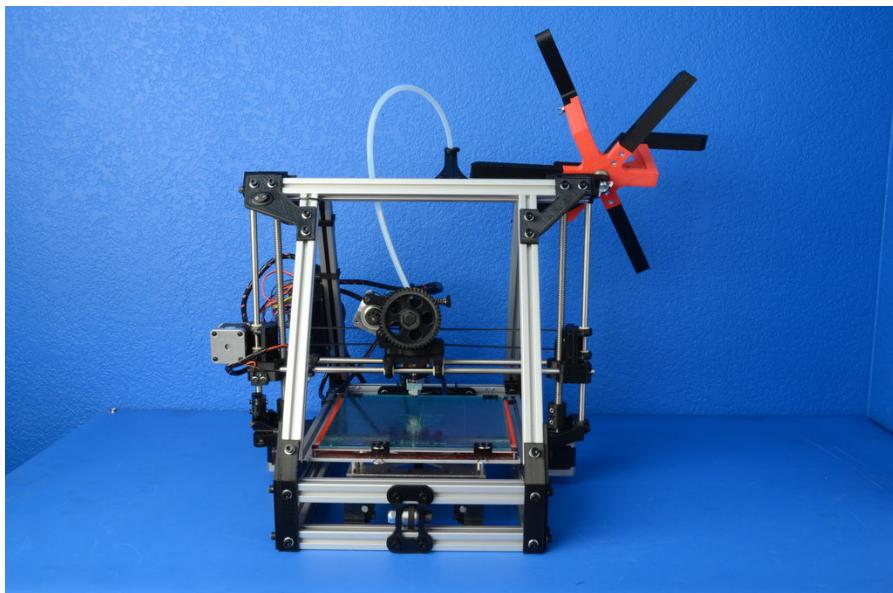


Figure 3.1: LulzBot AO-100 Front

3.2 LulzBot AO-101

LulzBot AO-101.

3.2. LULZBOT AO-101

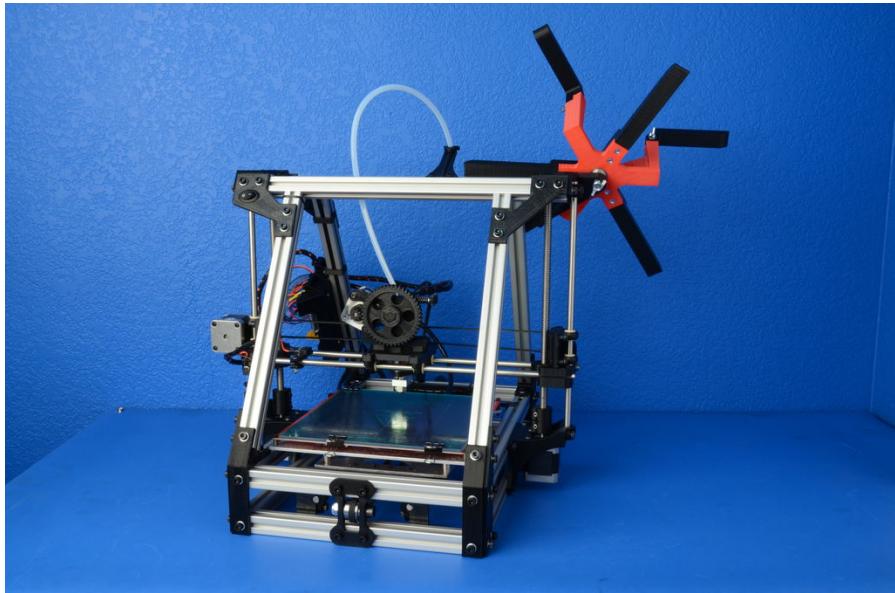


Figure 3.2: LulzBot AO-100 Front Left

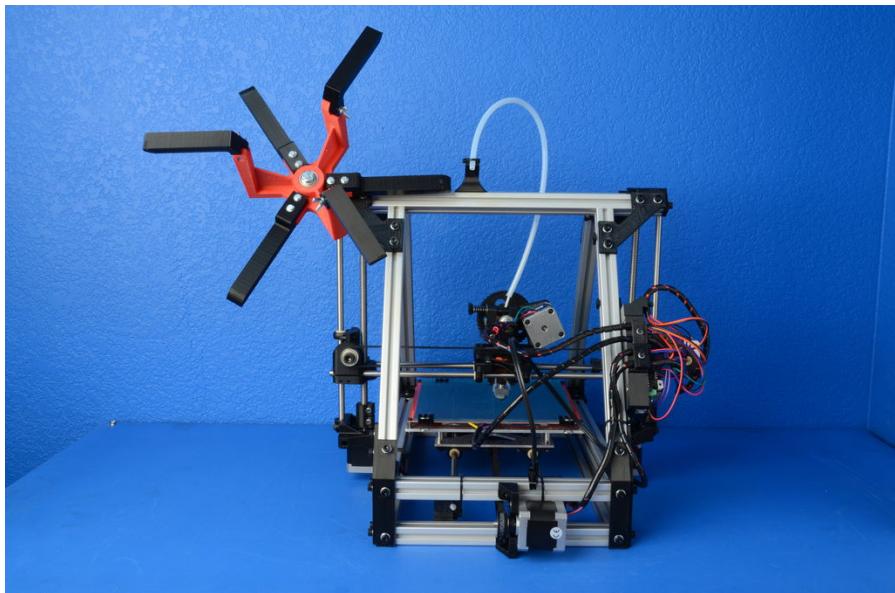


Figure 3.3: LulzBot AO-100 Back

LulzBot AO-100, AO-101

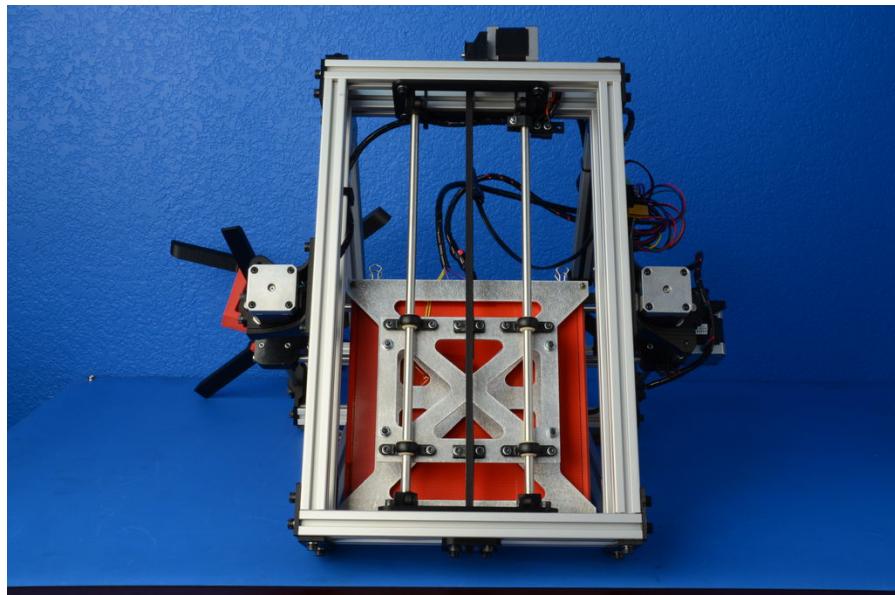


Figure 3.4: LulzBot AO-100 Bottom

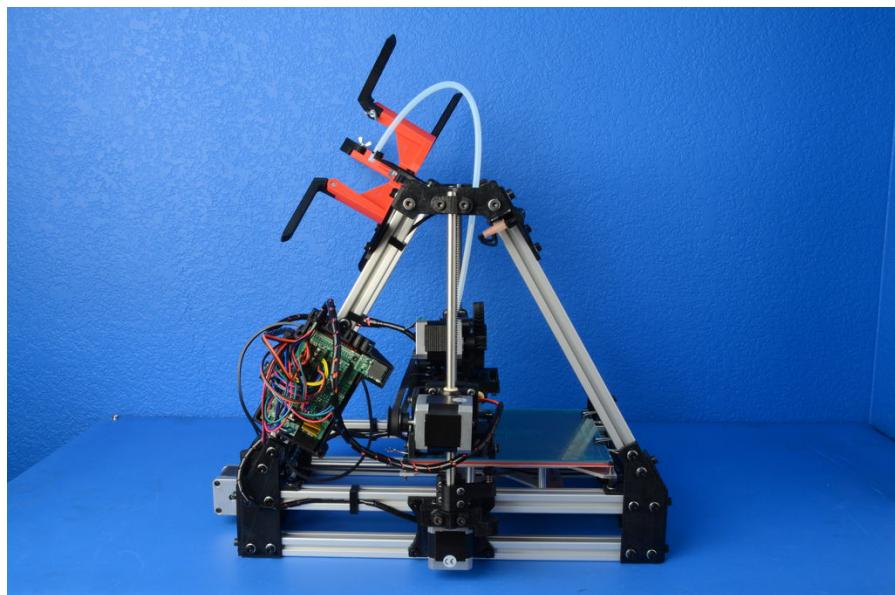


Figure 3.5: LulzBot AO-100 Front Left

3.2. LULZBOT AO-101

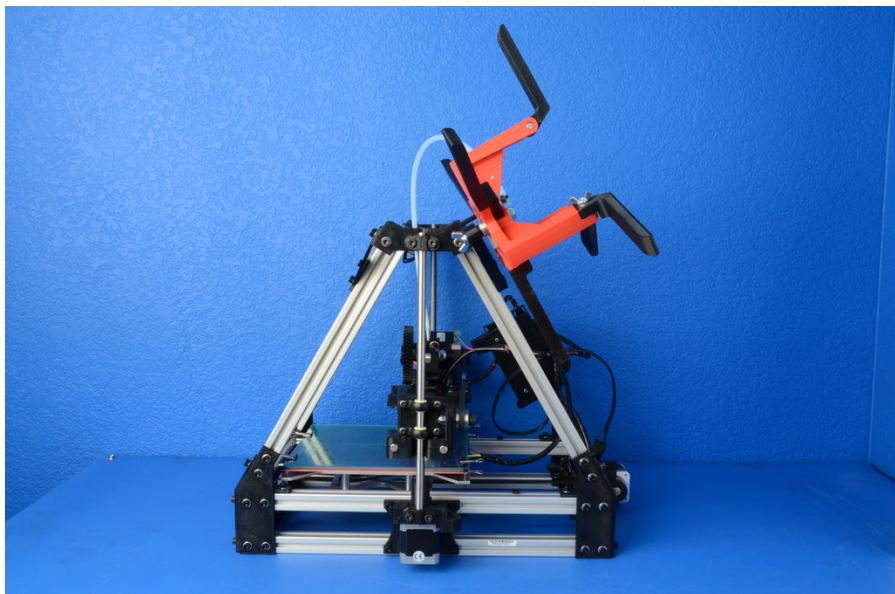


Figure 3.6: LulzBot AO-100 Front Right

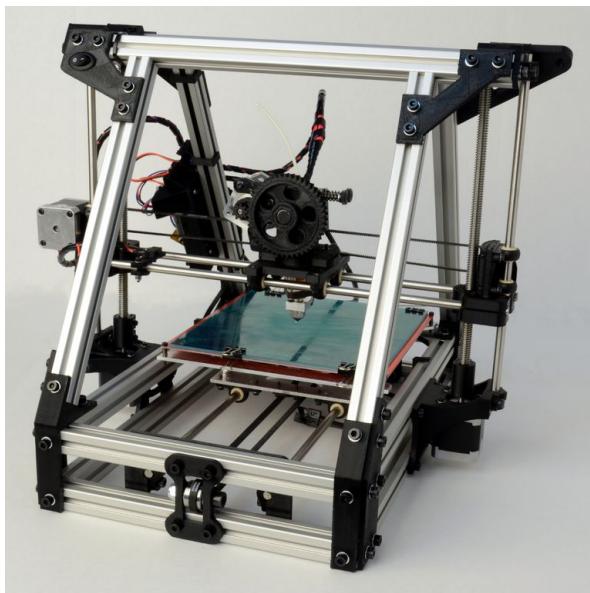


Figure 3.7: LulzBot AO-100

LulzBot AO-100, AO-101

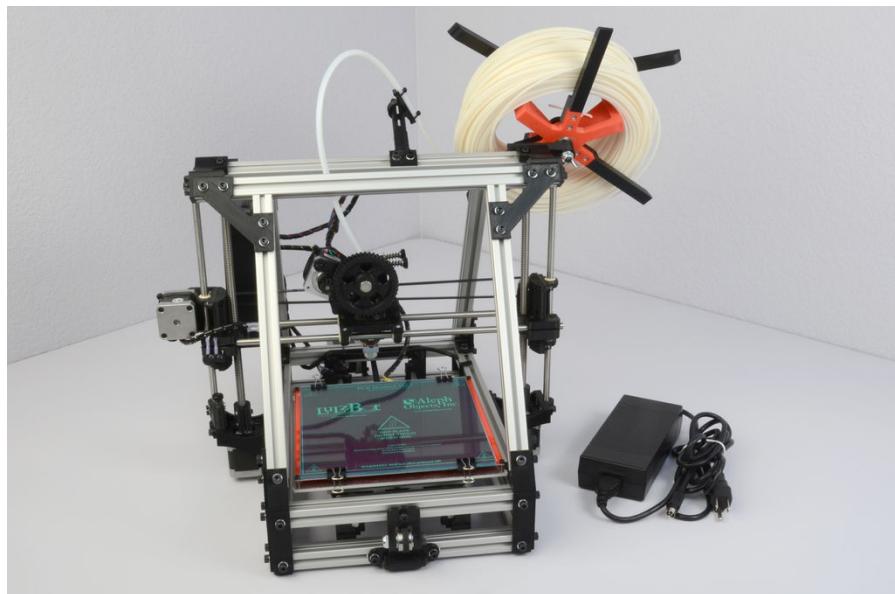


Figure 3.8: LulzBot AO-101

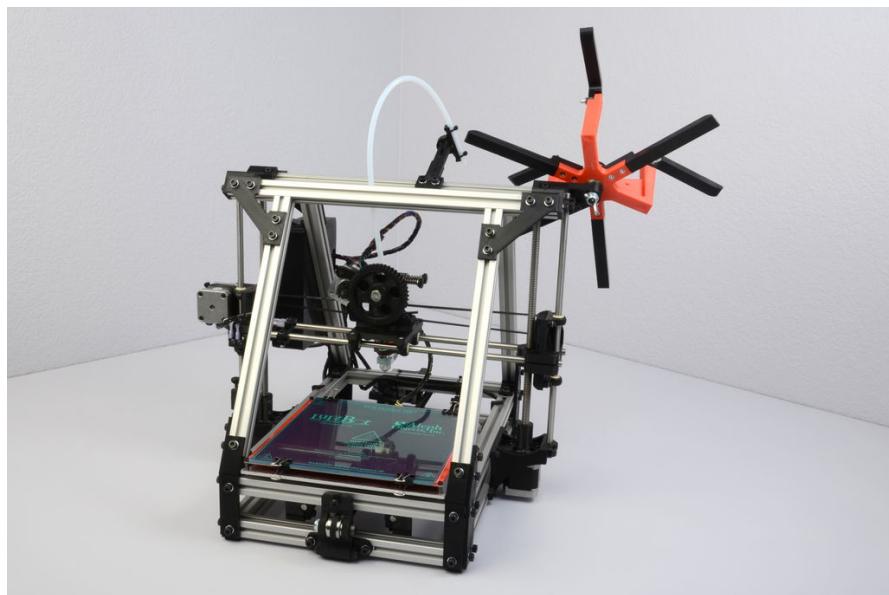


Figure 3.9: LulzBot AO-101 Front

3.2. LULZBOT AO-101

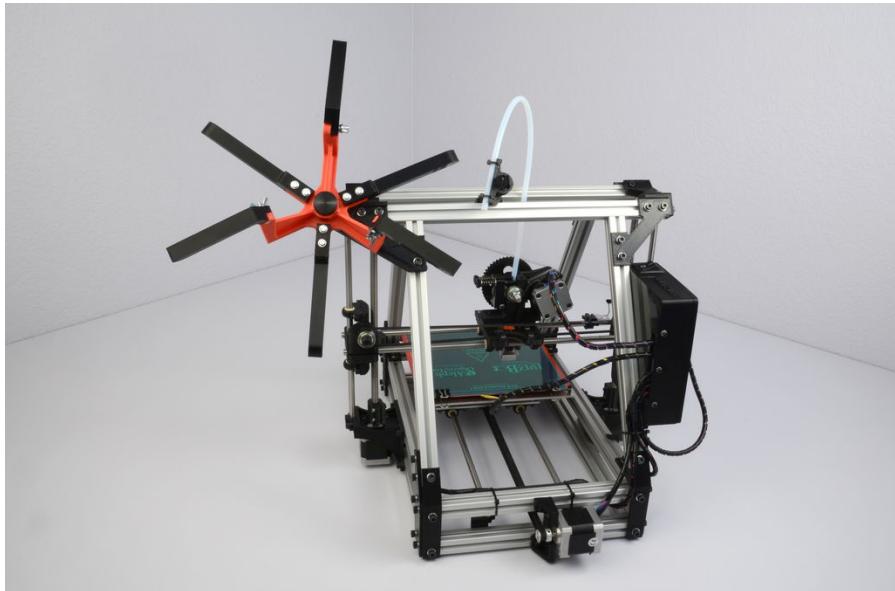


Figure 3.10: LulzBot AO-101 Back

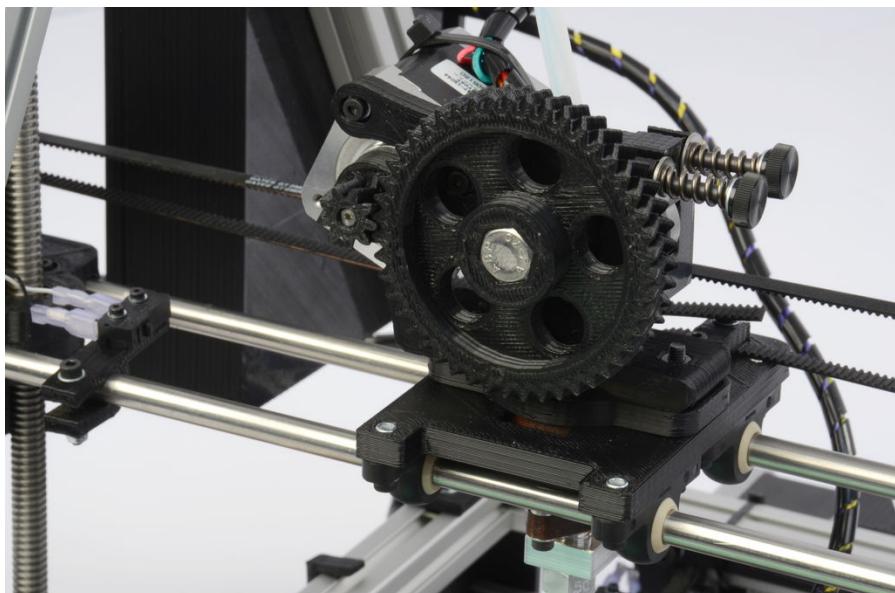


Figure 3.11: LulzBot AO-101 Extruder

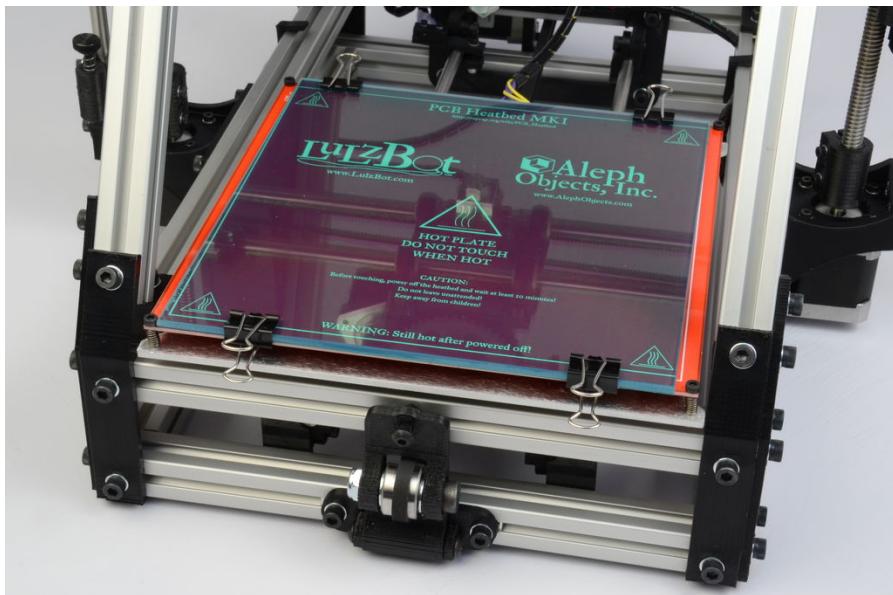


Figure 3.12: LulzBot AO-101 Heatbed

LulzBot TAZ 1, 2, 3, 4, 5

100+ Node Cluster Printing Itself

LulzBot TAZ 1, 2, 3, 4, 5

The LulzBot TAZ brought a new platform, and greatly increased print size. TAZ production started in quarter two of 2013.

4.1 LulzBot TAZ-1

LulzBot TAZ-1.



Figure 4.1: LulzBot TAZ-1

4.1. LULZBOT TAZ-1

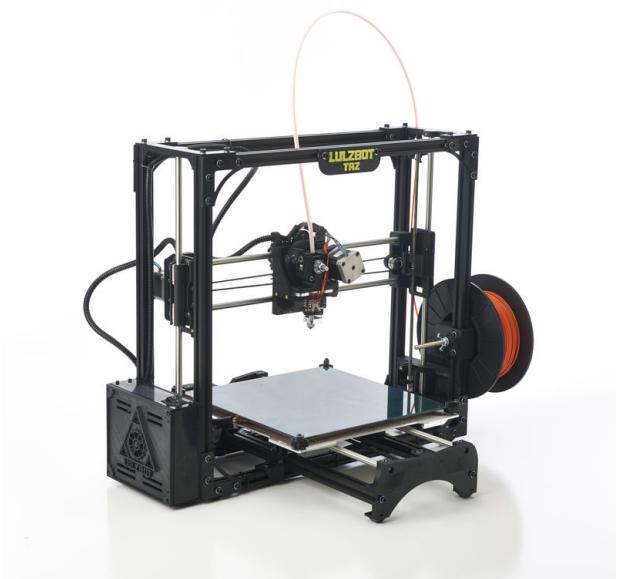


Figure 4.2: LulzBot TAZ-1 Front Left



Figure 4.3: LulzBot TAZ-1 with Vase

LulzBot TAZ 1, 2, 3, 4, 5



Figure 4.4: LulzBot TAZ-1 with Octopus



Figure 4.5: LulzBot TAZ-1 Max Build Volume

LulzBot Mini

Moar

LulzBot Mini

The LulzBot Mini greatly increased ease of use, particularly with auto-bed leveling. Mini production started in quarter one of 2015.

5.1 LulzBot Mini-1

LulzBot Mini.

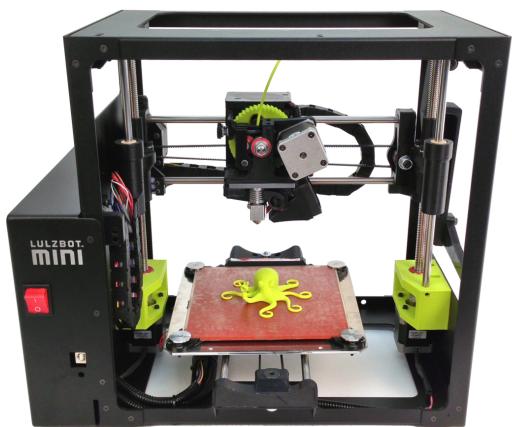


Figure 5.1: LulzBot Mini-1

3D Printer Cluster

Moar Makes Moar

6.1 LulzBot 3D Printer Cluster

This is the evolution of the LulzBot 3D Printer Cluster.

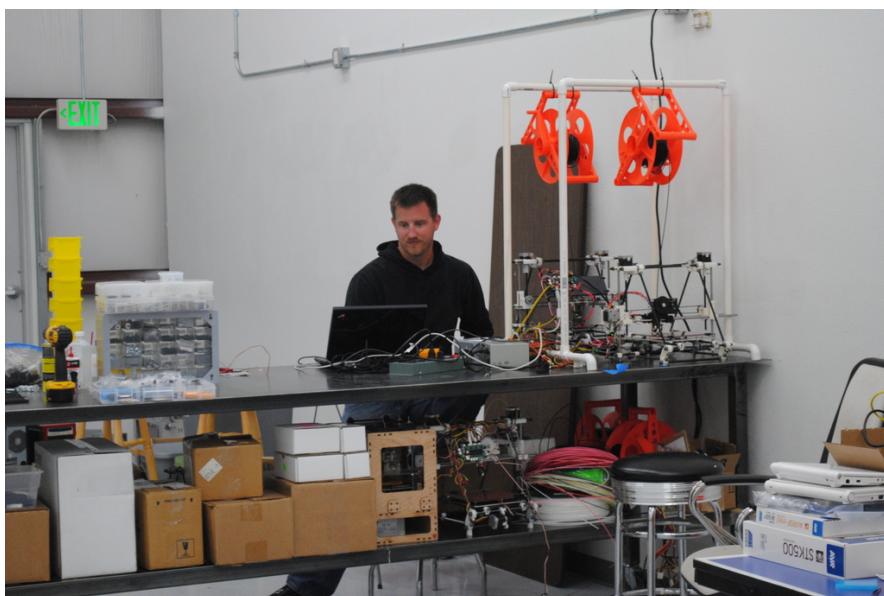


Figure 6.1: LulzBot 3D Printer Cluster of 2 Clonedels, June, 2011

6.1. LULZBOT 3D PRINTER CLUSTER

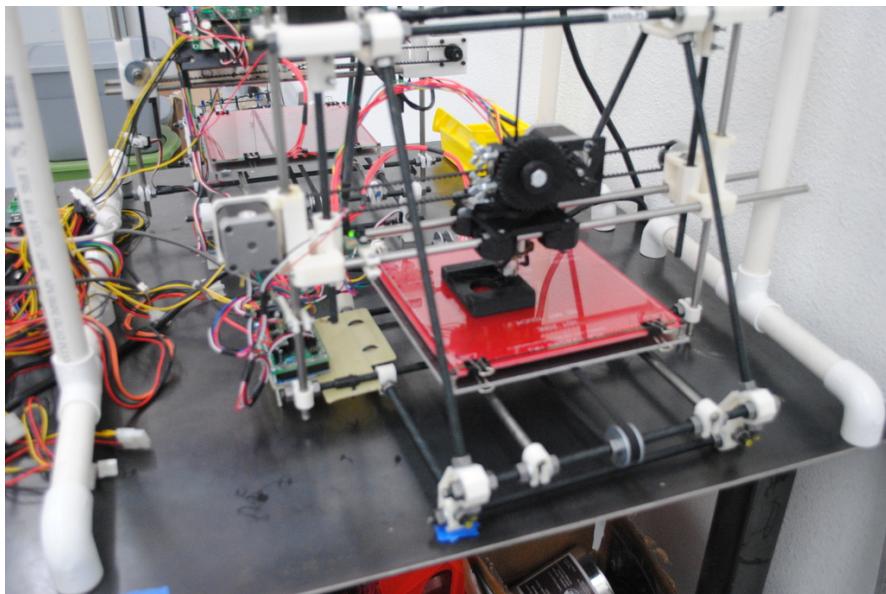


Figure 6.2: LulzBot 3D Printer Cluster of 2 Clonedels Closeup

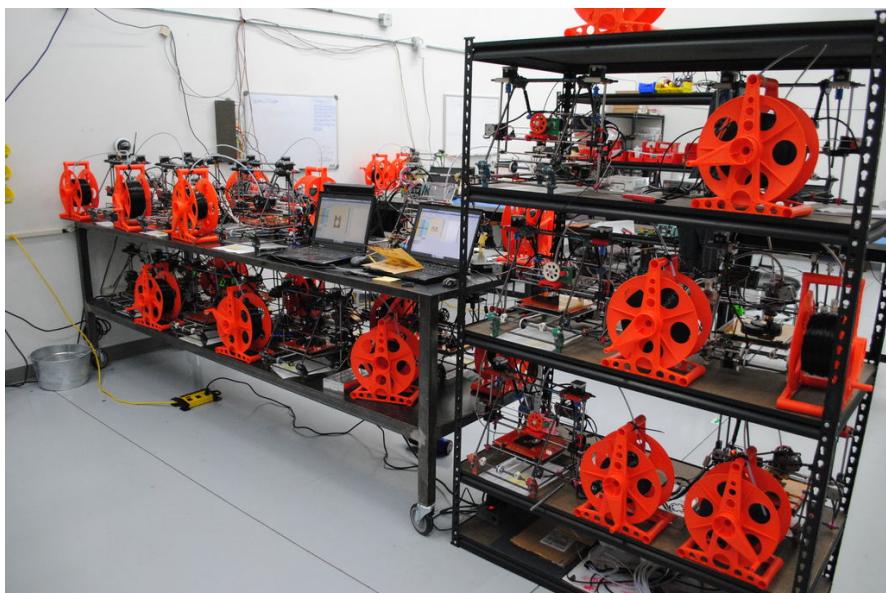


Figure 6.3: LulzBot 3D Printer Cluster of 19 Clonedels, October, 2011

3D Printer Cluster

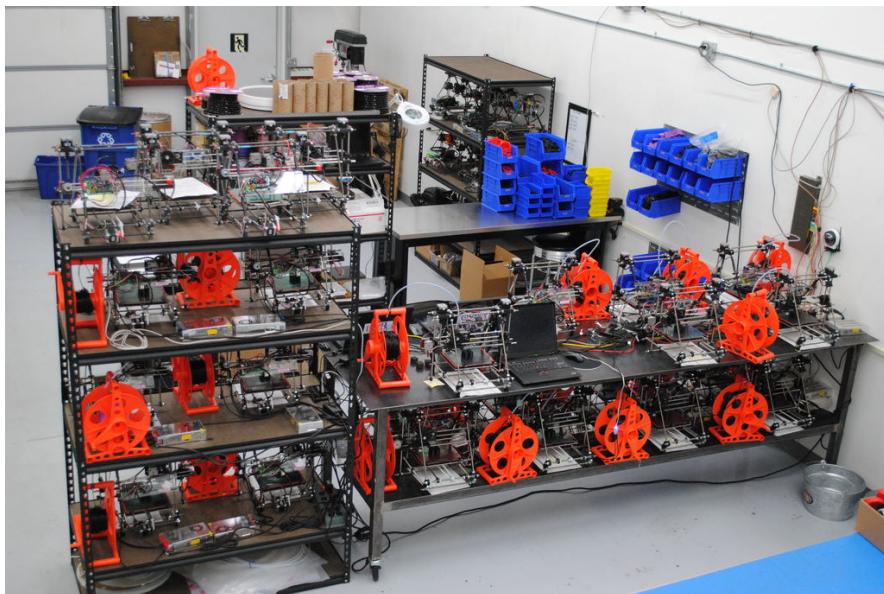


Figure 6.4: LulzBot 3D Printer Cluster of 19 Prusas, December, 2011

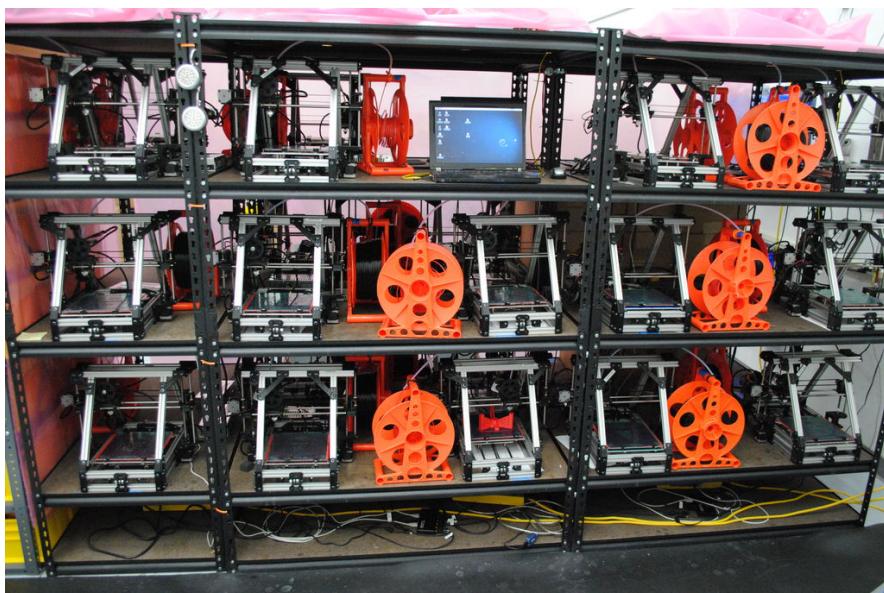


Figure 6.5: LulzBot 3D Printer Cluster of 28 AO-100s, July, 2012

Contact

Phone, Email, Web, Location

7.1 Support

Email: support@alephobjects.com

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7.2 Sales

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