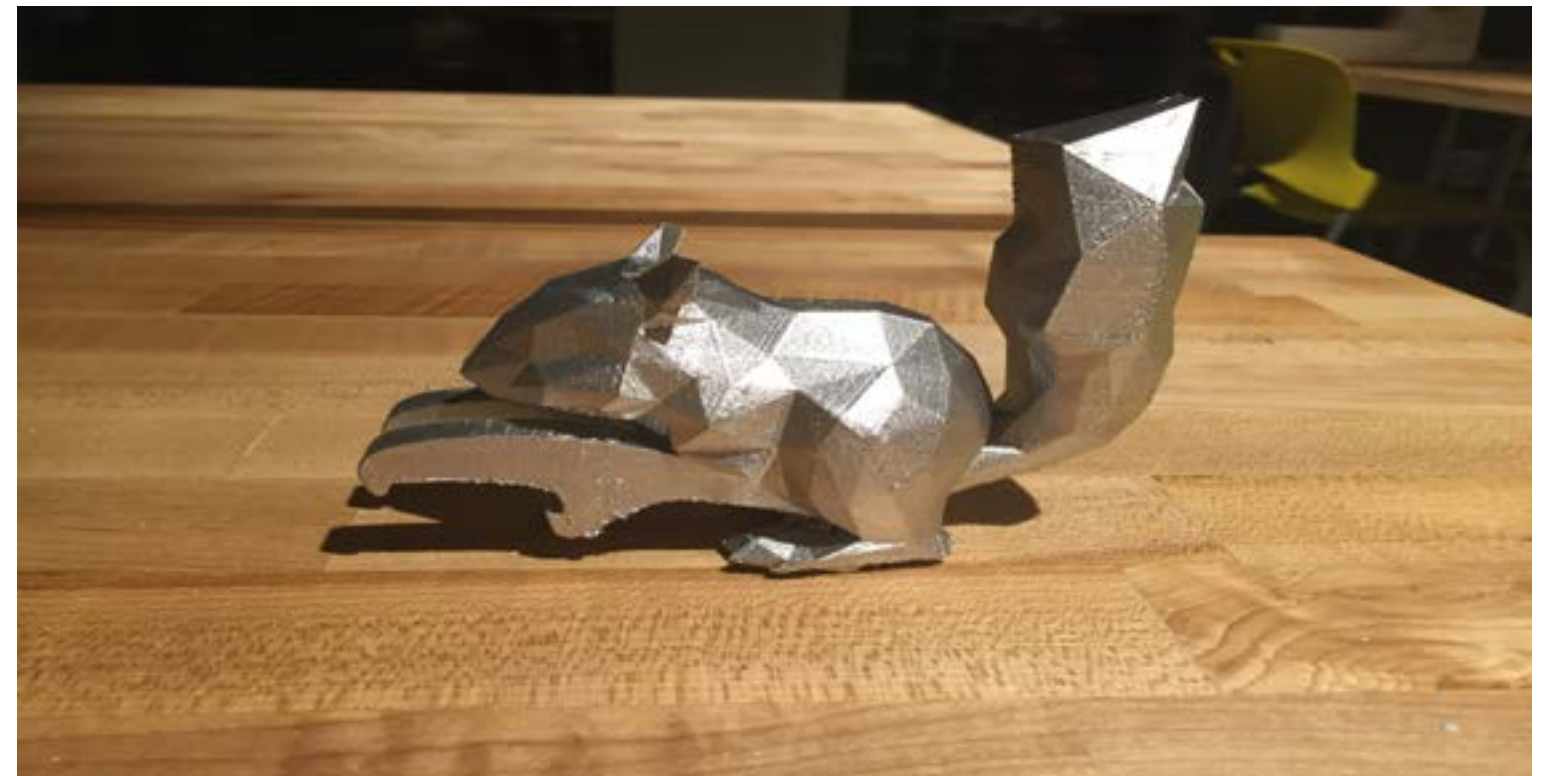


SQUIRREL BOTTLE OPENER

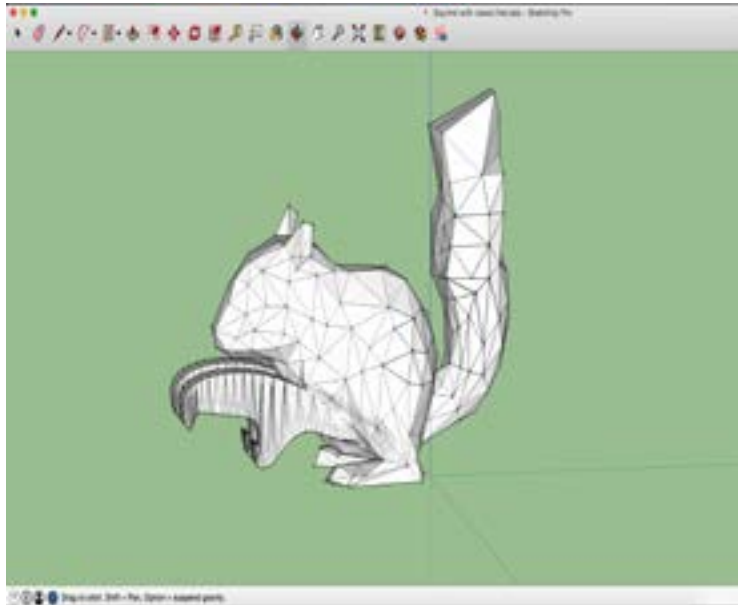
Name: Christopher Chung



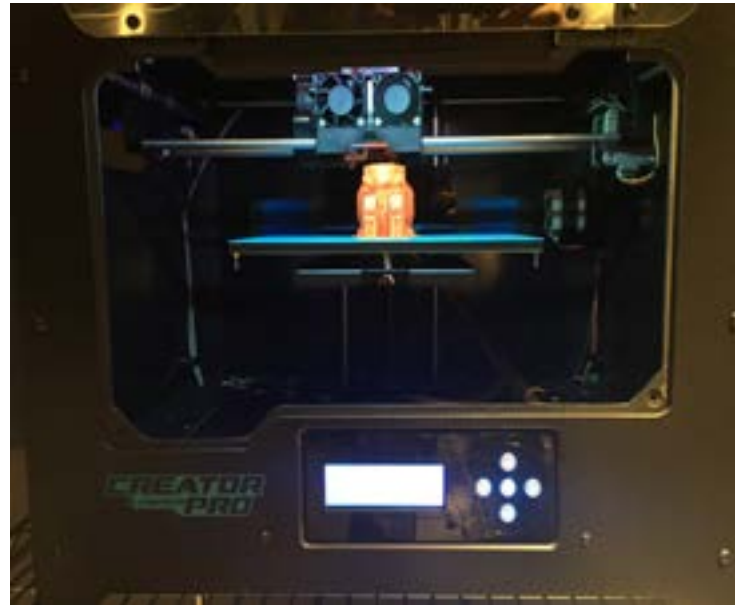
SQUIRREL BOTTLE OPENER

Name: Christopher Chung

MATERIALS: PLA, MAGNETS, GLUE, PAINT
SIZE: 123.2 MM X 51.94 MM X 100 MM
TIME TO MAKE: 10 HRS (8 HR PRINT)



3d Modeling in Sketchup
Low-poly model of squirrel is created



Printing using 3d Printer
Copy of squirrel is printed using Flashforge Creator Pro



Removing the Supports
Supports and Raft removed using clamp and screwdriver



Spray painting the model
Model is painted over with metallic Krylon spray paint



Adding the Magnets
Neodymium magnets are glued onto base of model using superglue



Final Product
Shot of final product

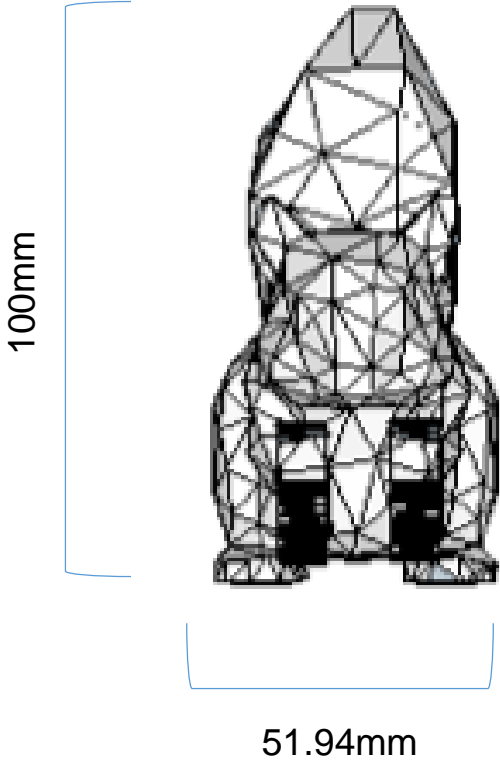
Squirrel Bottle Opener		DESIGN 443
CHRISTOPHER CHUNG	Version No. 1	1 of 3
	Dec. 15 th 2015	

BILL OF MATERIALS											
Item	Part Description	Category	Supplier	Part #	Quantity	Unit	Price Per Unit	Total Price	Part	Lead Time	Link
1	3D Filament PLA (orange) with 1.75mm diameter (1 kg)	Material	Amazon	3D PLA-1KG1.75-ORN	1	EA	\$22	\$22	Hatchbox 1.75mm Orange PLA	2-3 days (with Prime)	http://www.amazon.com/HATCHBOX-1-75mm-3D-Printer-Filament/dp/B00J0EE1D4/ref=sr_1_10?ie=UTF8&qid=1450138224&sr=8-10&keywords=3d+pla
2	Polyurethane adhesive for plastic to magnet bonding (2 oz)	Material	Home Depot	5201201	1	EA	\$5	\$5	Gorilla Glue	None (pickup in store)	http://www.amazon.com/Gorilla-5201204-2oz-White-Glue/dp/B001L6CVS6/ref=sr_1_5?ie=UTF8&qid=1450138299&sr=8-5&keywords=gorilla+glue
3	Magnets made of Rare Earth Metals for extra pull strength.	Material	Hardwicks	07527	8	EA	\$0.625	\$5	Neodymium Magnets	None (pickup in store)	N/A
4	Fast drying spray paint, designed to adhere to plastic	Material	Ace Hardware	1222926	1	EA	\$6	\$6	Krylon Metallic Spray Paint	None (pickup in store)	http://www.acehardware.com/product/index.jsp?productId=21147286
5	Flashforge Creator Pro. (Costs will vary if you already own 3d Printer)	Labor	Metrix	FF3DP-X	32	HR	\$10/hr	\$320	3D Printer	When available	http://www.metrixcreatespace.com/
Total Cost								\$378			

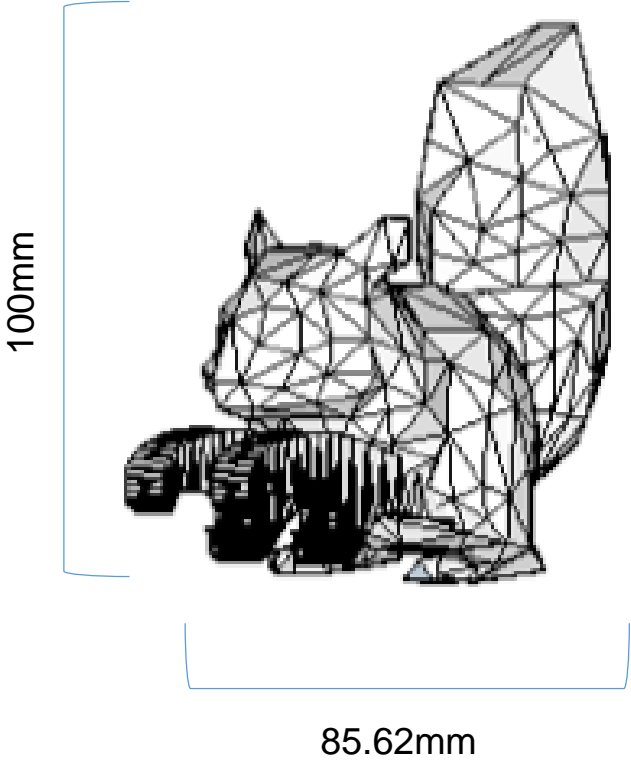
Squirrel Bottle Opener		DESIGN 443
CHRISTOPHER CHUNG	Version No. 1	2 of 3
	Dec. 15 th 2015	

PART DRAWINGS

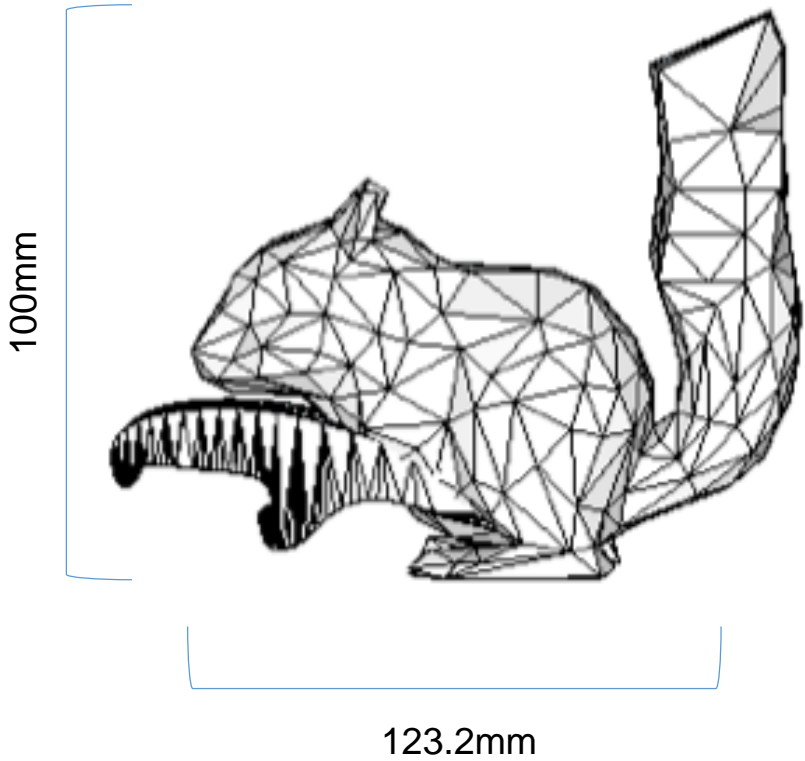
Front View



3/4 View



Side View



Squirrel Bottle Opener

DESIGN 443

CHRISTOPHER
CHUNG

Version No. 1

Dec. 15th 2015

3 of 3

ASSEMBLY DRAWING

Parts:

- 1 x 3D Printed Squirrel (PLA) ①
- 2 x Neodymium Magnets
with adhesive ②
- 1 x Krylon Spray Paint ③

Steps:

- 1.) Spray paint squirrel
- 2.) Add several coats
- 3.) Clamp squirrel upside down
- 4.) Glue magnets onto base of model

