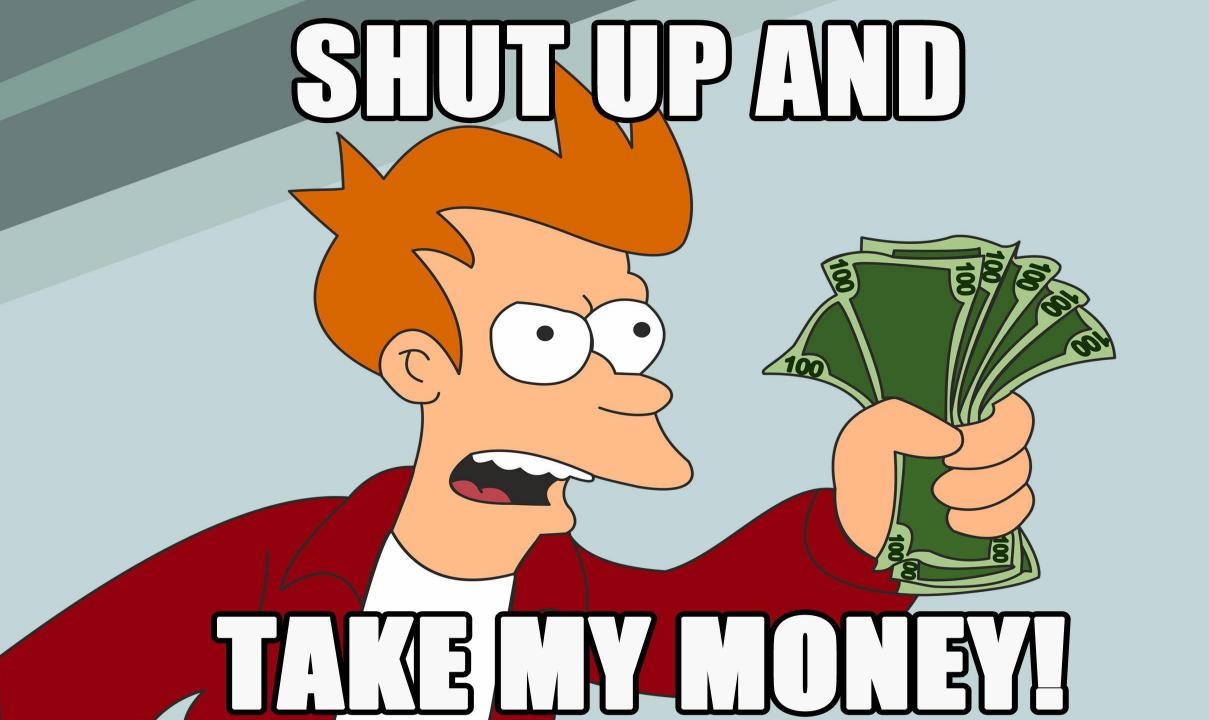
## Makerspaces On A Budget

NICK TANZI, HEAD OF DIGITAL SERVICES MASTICS-MORICHES-SHIRLEY COMMUNITY LIBRARY

## But 3D Printing is Expensive!



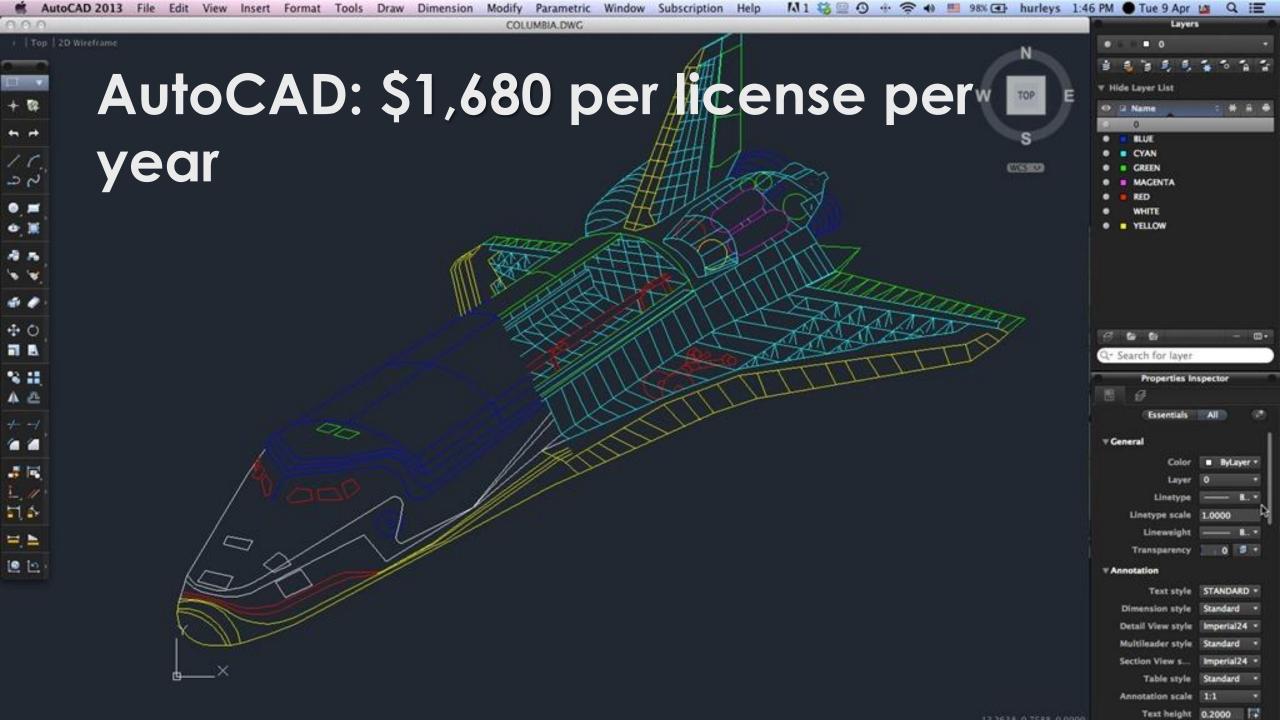
# What are the costs associated with 3D Printing?



### Sample Printer Prices

- Cube Pro: \$2,799 and up
- Makerbot Replicator: \$2,499
- Ultimaker 2+: \$2,499
- Lulzbot TAZ 5: \$2,200
- Flashforge: \$1,099

## Software



Consumables.



## Not those consumables!

## These consumables.

Tapes & Spec

## 3D Printing Consumables

#### ► Filament

- Tape (painters, Kapton, adhesives)
- Maintenance Kits
- Replacement extruders



## So how do we save money?

## Manage Consumables

## Open source printers can use non-proprietary filament

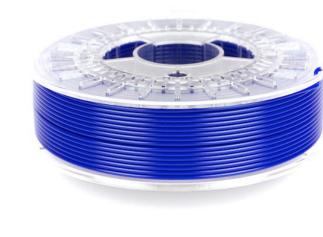




.75kg Official Ultimaker PLA Filament, 2.85mm, Dark Blue - 1pc



Estimated shipping: In stock. Orders ship same day if ordered by 3 pm EST.



#### ColorFabb PLA Filament 2.85mm (750 g)

European-made, finest quality

#### ★ 🗙 🛧 🛧 3 Reviews

By ColorFabb

COLOR	
Ultra Marine Blue	<b>.</b>
SIZE	
2.85mm	

#### \$ 39.00



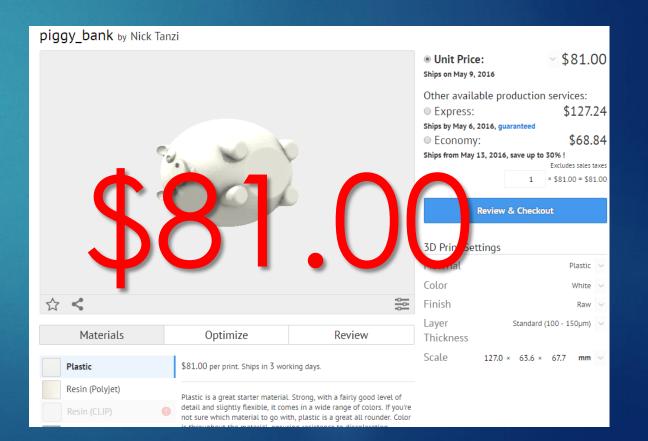
AVAILABILITY: IN-STOCK NOW

## Use Generics Whenever Possible!

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	3M Marine Blue Painters Mask Tape 2080 3/4
	Product ID: ZZ20239 MFG ID: 80988
< >	Availability: Usually ships within 24 hours
	MSRP/MAP Price \$7.49 Our Price \$4.95
MakerBot:	Qty: 1 + ADD TO CART
	[] Like 647 G+1 0 f y t G + 0
	Q Zoom Wishlist
• 0	LOW PRICE GUARANTEE WE WILL PRICE MATCH. LEARN MORE
	FEATURES RELATED PRODUCTS REVIEWS
Build Plate Tape for MakerBot Replicator (5th Gen) \$9.99 1 $\stackrel{\wedge}{\odot}$ Add to Cart >	Removes cleanly without adhesive transfer or surface damage for up to 60 days. Low-medium adhesion tape that is ideal
	for smooth, freshly painted surfaces.

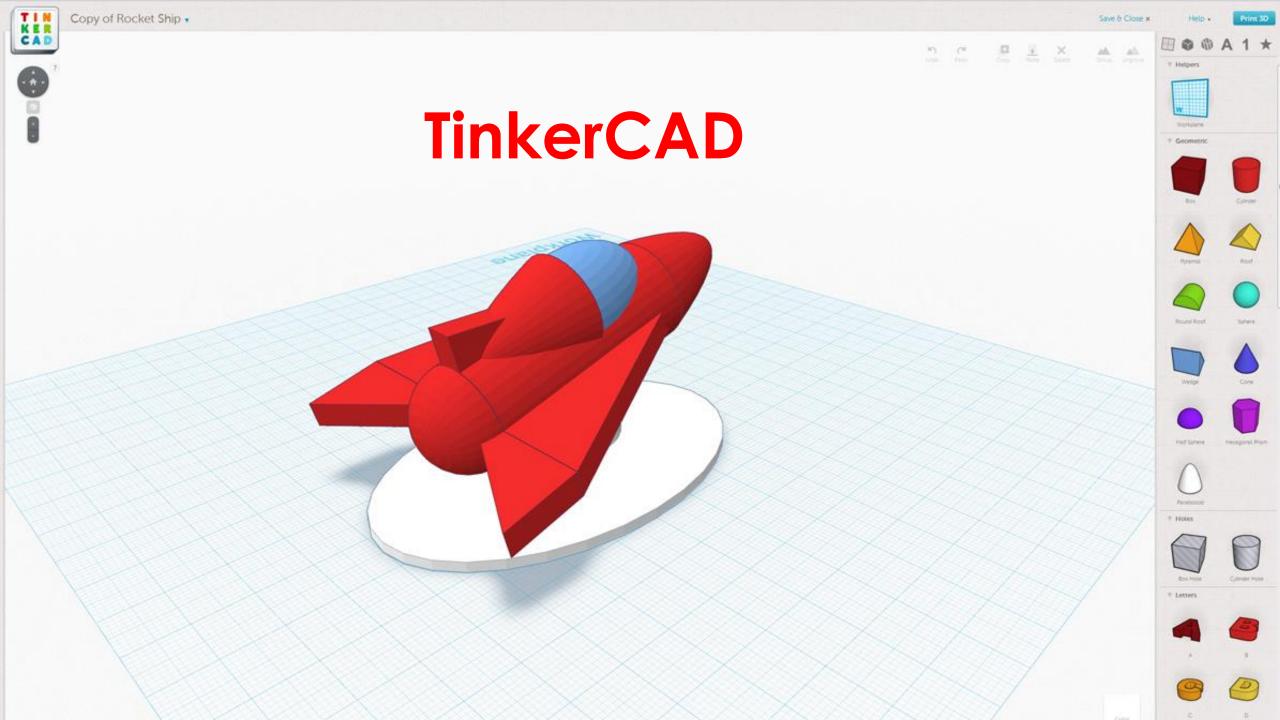
## Have Patrons Defer Costs

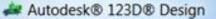


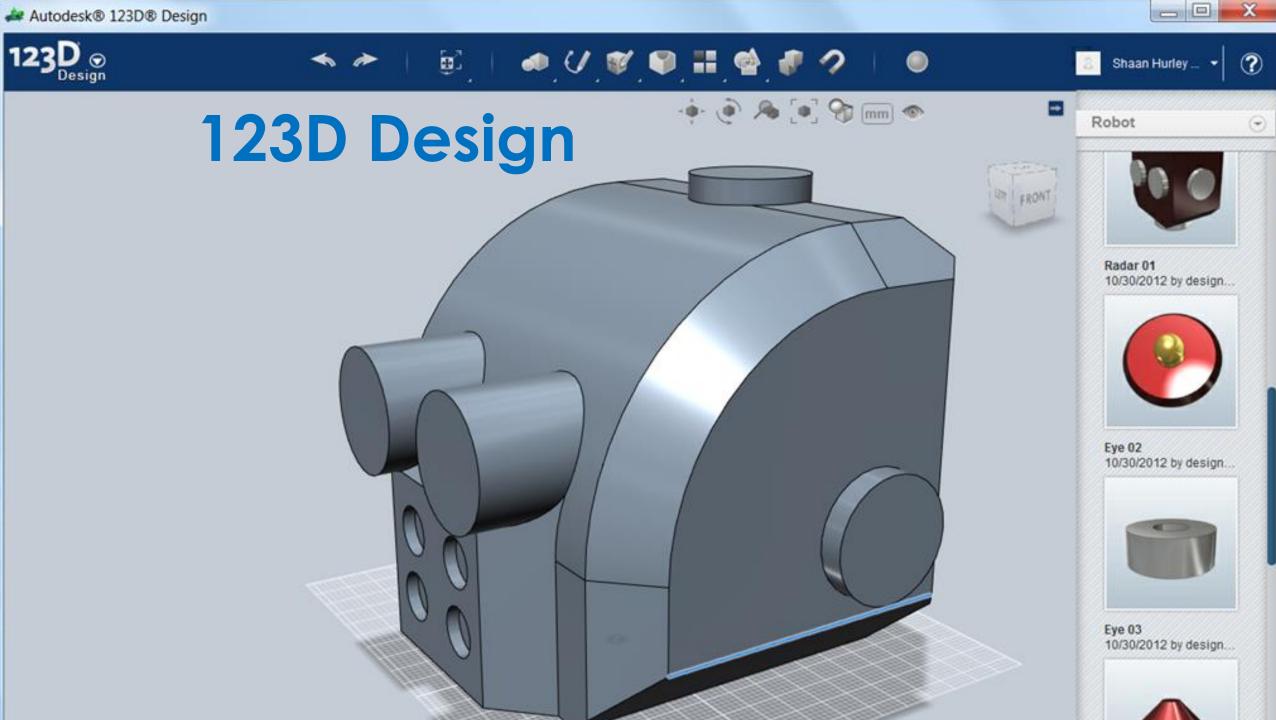


## How Else Do We Manage Costs?











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Add to Group

## Feeling Overwhelmed?



## Take Advantage of Software You're Already Paying for!





# **Comparison of Contract of Con**

## 3D Courses Include:

Sculptris
TinkerCAD
Blender
123D Design
SketchUp
ZBrush

## Save Me More Money!



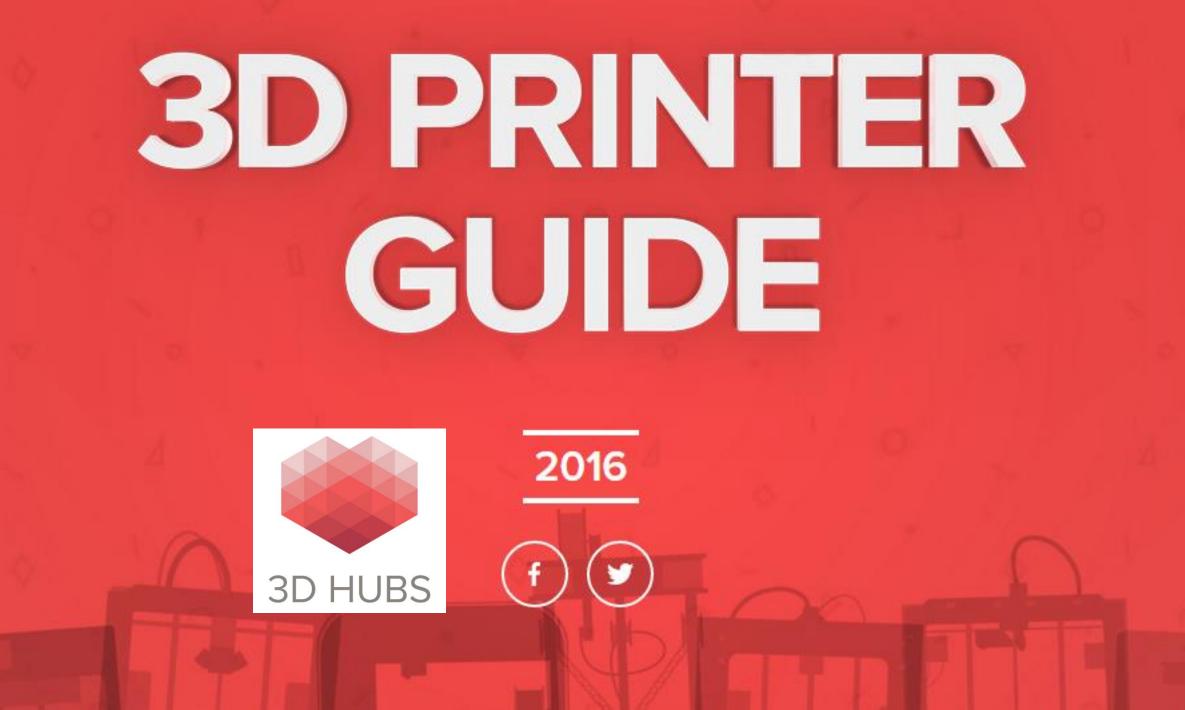
Manage the Cost of Your 3D Printer











# Investigate the Life of the Extruder









Go Smaller.



#### Miniaturized Printers





#### Maximize Your Investment



Plan A Usage Schedule Ahead of Time. Such as...



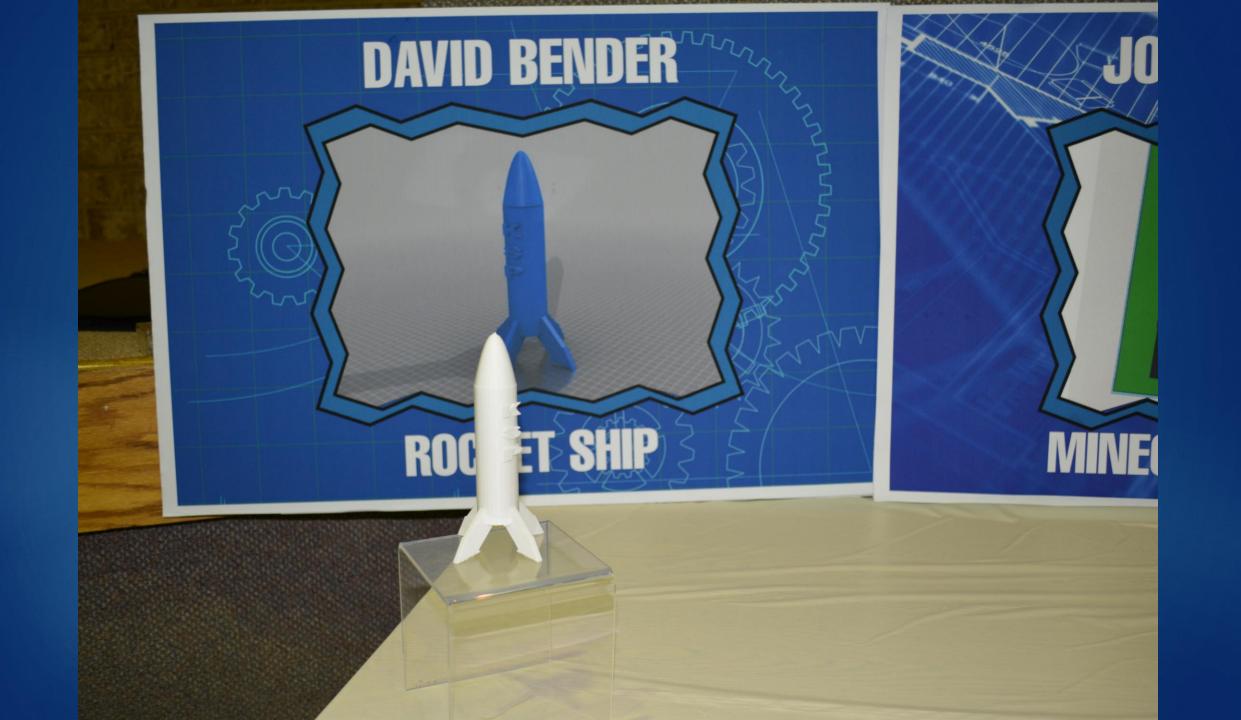




#### Exhibits & Art Shows



## NINTENDO CONTROLLER







### Giveaways & Prizes



# Split the Cost Between Departments!

#### References

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Replicator Desktop 3D Printer | MakerBot. (n.d.). Retrieved May 01, 2016, from <u>http://store.makerbot.com/replicator</u>

Hurley, S. (n.d.). Between the Lines. Retrieved May 04, 2016, from <u>http://autodesk.blogs.com/between the lines/autocad history/</u>

ULTIMAKER 2 GO THE MIGHTY MINI 3D PRINTER. (n.d.). Retrieved April 25, 2016, from https://ultimaker.com/en/products/ultimaker-2-go

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--Voice of Youth Advocates Magazine

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