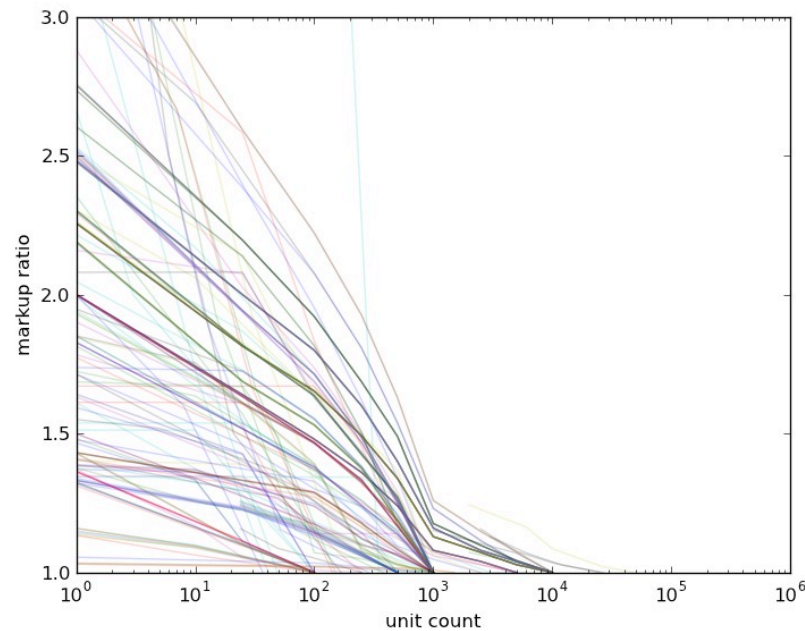


# “Don't Let Price-breaks Break the Bank!”

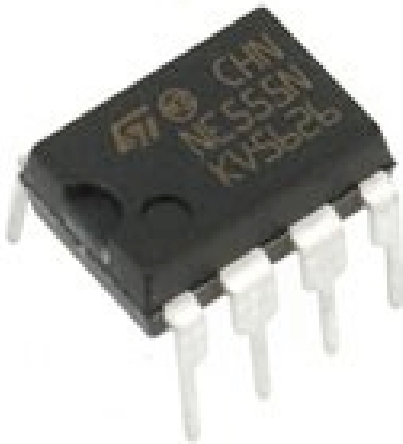
*The Economics of Part Pricing for Small Buyers*



**Bryan Newbold**  
bryan@octopart.com

Stuff costs \$\$\$

More stuff costs less \$\$\$



Quantity	Cost per Unit
1	\$0.50
10	\$0.42
100	\$0.32
1,000	\$0.18
10,000	\$0.14

# Balancing Economies of Scale with Financial Costs

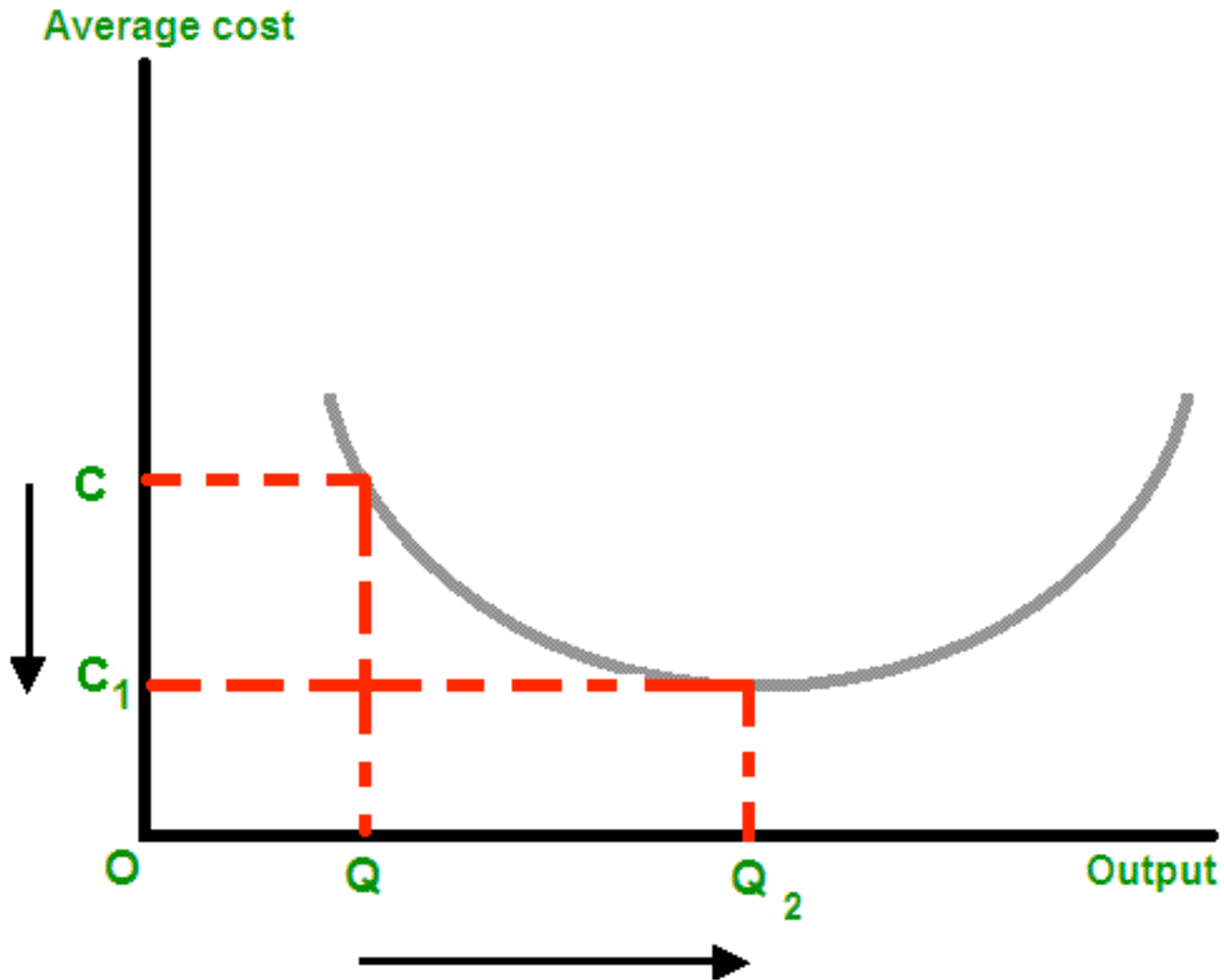
When you don't have:

- Dedicated Sourcing Staff
- Industry Connections
- \$5k+ cash on hand
- Safety net to take risks

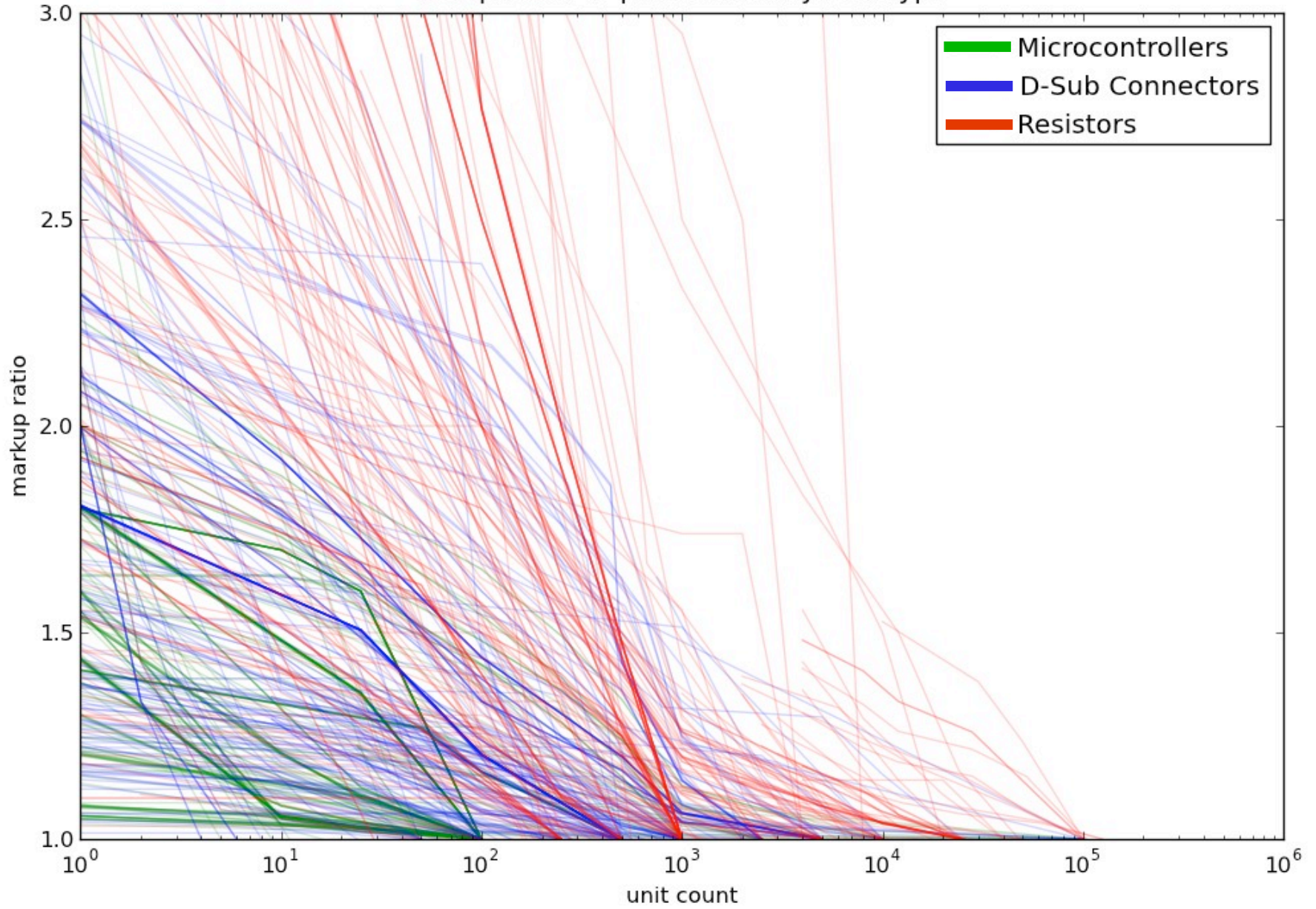
Scale: dozens to thousands of devices/kits

Final price important for viability of device

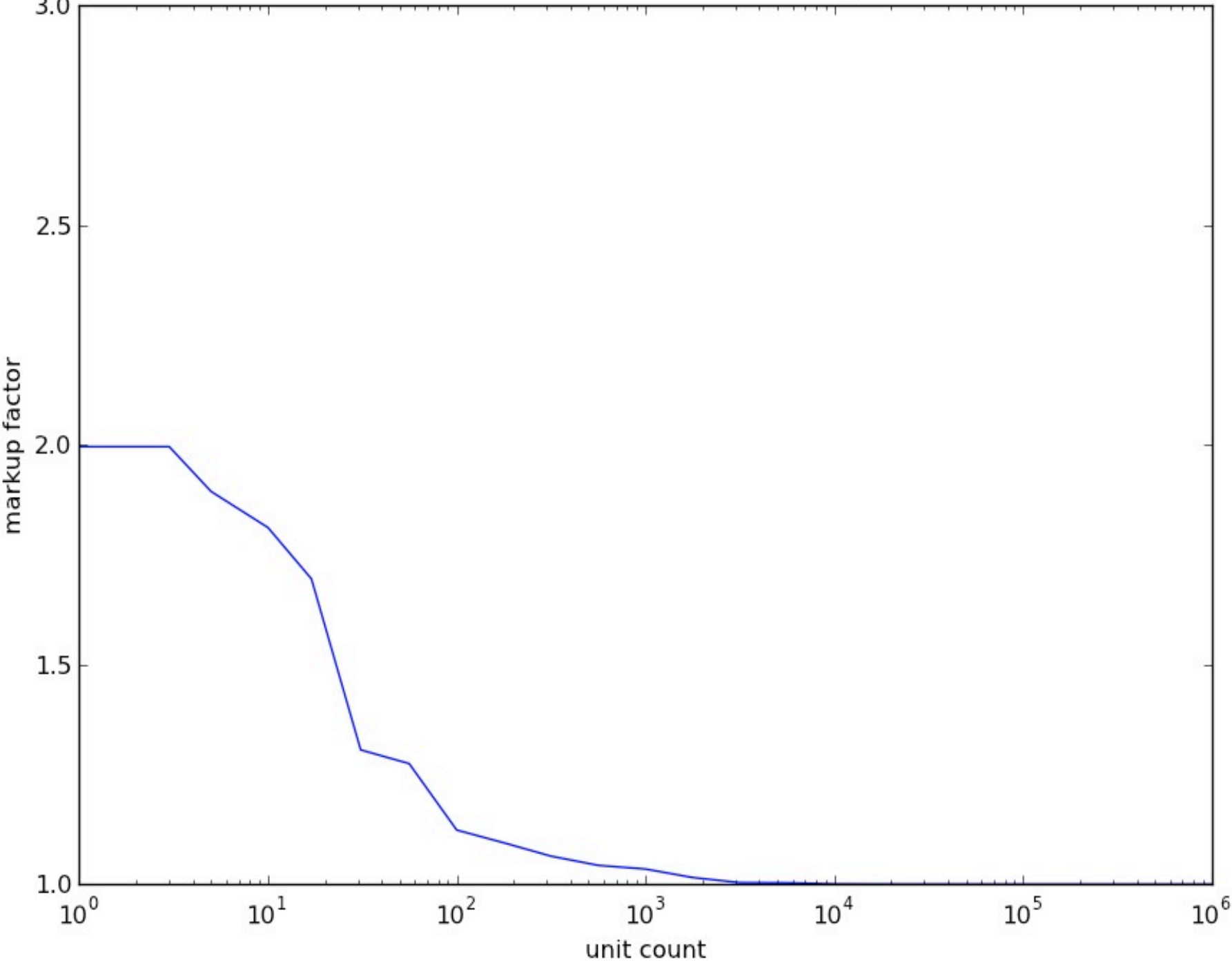
# Economies of Scale



Comparison of pricebreaks by Part Type



Combined BOM Price Breaks for Example Device



# Funding Schemes

(Unit Price) = (Base Cost) + (Financial Fees)

**Credit Card:** 20% APR, 6 months = 10%

**Bank Loan:** 8% Annual, 6 months = 4.3%

**Kickstarter:** 5% plus 3.2% = 8.2%

**Out of Pocket:** Free!

**Open Hardware Bank?**

# Comparison of Funding Schemes

Quantity	Total Production Cost	Base Cost	Base Cost Markup	Kick-starter Unit Price	Credit Card Unit Price	Bank Loan Unit Price
10	\$277.10	\$27.71	81.11%			
100	\$1,718.00	\$17.18	12.29%			
175	\$2,929.50	\$16.74	9.41%			
500	\$7,975.00	\$15.95	4.25%			
1,000	\$15,830.00	\$15.83	3.46%			
5,000	\$76,750.00	\$15.35	0.33%			
10,000	\$153,000.00	\$15.30	0.00%			



# Comparison of Funding Schemes

Quantity	Total Production Cost	Base Cost	Base Cost Markup	Kick-starter Unit Price	Credit Card Unit Price	Bank Loan Unit Price
10	\$277.10	\$27.71	81.11%	\$30.19	\$30.79	\$28.96
100	\$1,718.00	\$17.18	12.29%	\$18.71	\$19.09	\$17.95
175	\$2,929.50	\$16.74	9.41%	\$18.24	\$18.60	\$17.49
500	\$7,975.00	\$15.95	4.25%	\$17.37	\$17.72	\$16.67
1,000	\$15,830.00	\$15.83	3.46%	\$17.24	\$17.59	\$16.54
5,000	\$76,750.00	\$15.35	0.33%	\$16.72	\$17.06	\$16.04
10,000	\$153,000.00	\$15.30	0.00%	\$16.67	\$17.00	\$15.99

# Comparison of Funding Schemes

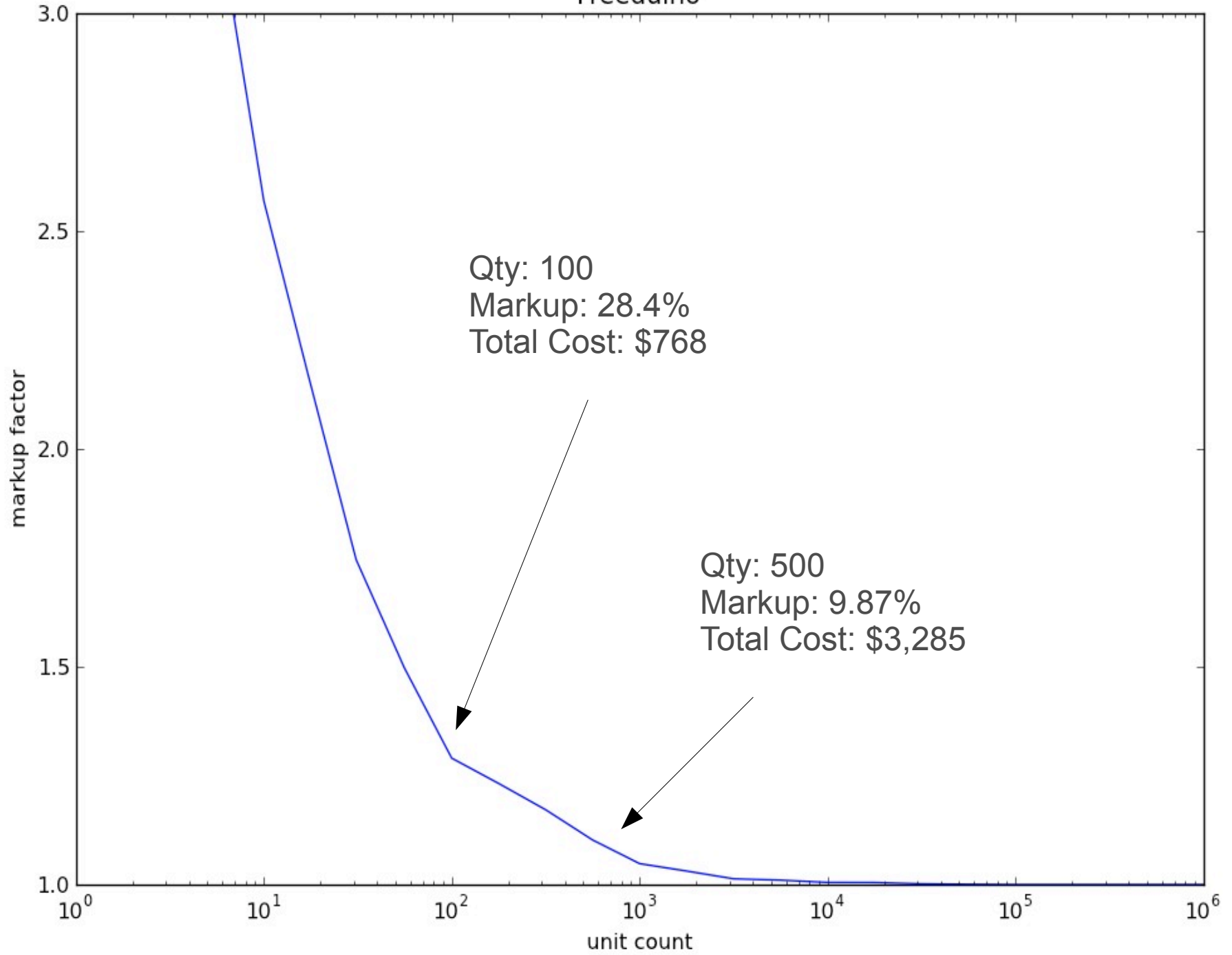
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<http://octopart.com/blog>

**Octpart**

[jobs@octopart.com](mailto:jobs@octopart.com)

# Freduino



Maximum Markup by Part Price

