

# QUALITY vs LOW COST

Would you buy a Holden Barina to cross the Simpson Desert just because it's cheaper than a Toyota Landcruiser?

NO...so **why choose prototypes based purely on price??** We produce high quality parts on machines costing 100's of thousands of dollars, matched with specialised materials that cost as much as \$500 per kilo which can produce your parts in more realistic materials than any other process.

**Prototyping is a key part of your manufacturing process...**trying to save a few dollars in the prototyping process and you may end up paying 1,000's of dollars more down the road in your manufacturing process because your parts were not functional or didn't have the accuracy in order to fully prove your design.

**Things to take into consideration when determining your printed parts:**

- What process are the parts being made in?
- What is the build layer of the machine printing your parts?
- Will the prototype be functional?
- What material will it be printed in?
- What kind of resolution will the parts be printed in?

**Remember not all 3D Printers are the same** just like not all cars are the same where more often than not a low price means it's probably being printed on a low cost 3D Printer and won't give you the accuracy or the materials that you require.



## Need to see to understand it?

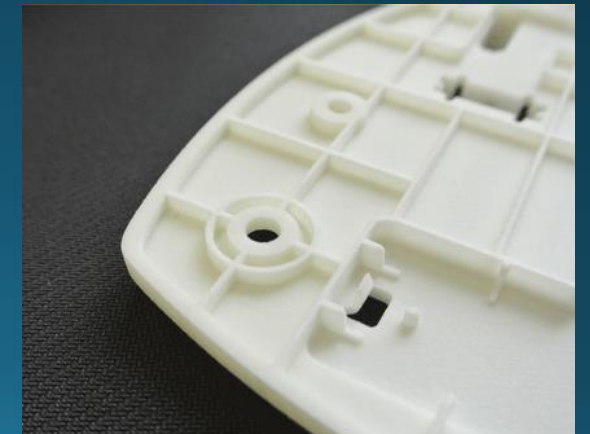
The images beside show the difference in 'Quality' versus 'Low Cost'.

The top part is "Low Cost"

The bottom part is "Quality".

## NEED MORE CONVINCING?

The images below show a black part printed on a low cost 3D printer and the white part printed on a professional 3D Printer...in other words you get what you pay for. If you're after fully functional parts with fine detail, smooth surfaces and in materials that closely resemble your finished product then that's where **we can assist you, providing you with the highest quality parts.**



## QUALITY vs LOW COST



Below is a reference guide to 3D Printing; giving you the ability to **quickly understand the differences** between **QUALITY AND LOW COST 3D Printing**. This guide is designed to give an understanding as to the costs involved in 3D Printing and more importantly **WHY** there can be massive differences in pricing 3D Printing...Which process best suits your needs?

	SLA	Polyjet	SLS	Rapid CNC	Vacuum Casting	FDM	Low Cost 3D Printers
Cost of 3D Printer	\$500K +	\$250K +	\$500K +	\$100K +	\$250K +	\$20K +	\$500 +
Cost of materials per Kilo	\$500	\$500	\$300	\$100	\$100	\$100	\$40
Polypropylene material	No	Yes	No	Yes	Yes	No	No
ABS material	Yes	Yes	No	Yes	Yes	Yes	Yes
Rubber material	No	Yes	No	No	Yes	No	No
Clear material	Translucent	Yes	No	Yes	Yes	Translucent	No
Strength of parts	Good	Good	High	Excellent	Excellent	Excellent	Poor
Surface finish	Excellent	Excellent	Good	Good	Excellent	Poor	Poor
Build layers	0.06mm	0.016mm	0.08mm	n/a	n/a	0.1mm	0.15mm
Suitable for painting	Yes	Yes	No	Yes	Yes	No	No
Suitable for Electroplating	Yes	Yes	No	Yes	Yes	No	No
Accuracy	Excellent	Excellent	Good	Good	Good	Average	Poor
Test fitting of parts	Excellent	Excellent	Good	Good	Excellent	Average	Poor
Able to print fine detail	Yes	Yes	OK	OK	Yes	No	No
<b>Overall rating</b>	<b>8.5/10</b>	<b>9.5/10</b>	<b>8/10</b>	<b>8.5/10</b>	<b>9/10</b>	<b>5/10</b>	<b>2/10</b>