

AXIS Prototypes RePort



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AXIS revamps its website

In 2005, [AXIS Prototypes](#) updated its website to reflect the high tech industry it competes in. Since then, the website has gone through many changes and upgrades and will continue to grow dynamically to better serve its clients.

Notably, AXIS has recently added an [online quoting tool](#).



Website Screenshot

and is considered when making amendments and upgrades to the web site.

Introduced as a simple online quoting tool, it now includes finishing and painting options with direct links to its [finishing and paint guide](#), a [free downloadable .STL viewer](#), a [material selector guide](#), and a promotion code and notes section.

Clients have found that the online guides are helpful when deciding which technology to use, which material to build with and which finishing options to choose. And of course, the material and mechanical engineers adore the [material comparison matrix](#), which pits true injection molding materials against the RP materials AXIS offers.

To view the guides, visit our Website or click on the links in the article.

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AXIS website features many tools and links for clients

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AXIS sponsors FSAE students from U of T

“This has helped us reach out to more potential clients. The goal is to make it hassle free for clients to log on, upload parts, and get a quote within a few hours. Not only have we had a greater interest from our neighbors in the US but have received requests from as far Mexico, Italy, and even Turkey.” says sales manager Vincent Laithier.

The [online quoting tool](#) is a continuous work in progress. Feedback from customers is taken seriously

11122 SL resin obtains USP class VI medical certification.

With the advent of newer, more advanced SL materials, a greater proportion of industries are reaping the benefits of Rapid Prototyping. One industry in particular is the medical product development industry. However, the uses of RP in this industry were until recently limited to casings, lenses, light pipes and other parts not destined for *in vivo* use.

[DSM Somos](#), the world’s premier RP resin developer and manufacturer, saw this as an opportunity. They have been hard at work reformulating the 11120 resin to meet and surpass the most stringent medical

MATERIAL SELECTOR GUIDE				
PROCESS	MATERIAL	SIMILAR TO	APPEARANCE	APPLICATIONS & KEY PROPERTIES
SLA	Somos 11120	Polypropylene	Translucent	Snap fit, Flexible parts, Live hinges*, High Impact, Casings, Quickcast & Master patterns, Transparent**, USP class VI medical certification , Water resistance
SLA	Somos 11172	ABS	Clear**	Casings, Quickcast & Master patterns, Transparent**, USP class VI medical certification , Water resistance
SLA	Somos 14120	ABS	White	Casings, Water resistance , Opaque white
SLA	Somos 18520	ABS	White	Same as 14120, adds HDT up to 90°C
SLA	Nanobot***	Ceramic/Plastic	Grey	Rapid Tooling, Vacuum Forming, Tooling inserts, Wind tunnel tests, HDT up to 250°C
SLA	DMX	ABS/Polypro	Cream	Snap fit, Highest impact strength on the market, Vibration resistance
SLA	Tango Grey	Rubber/Silicone	Grey	Gaskets, Boots, Keypads, Overmolding Shore D72
SLA	Tango Black	Rubber/Silicone	Black	Gaskets, Boots, Keypads, Overmolding, Shore D65
SLA	Tango Pink	Silicone	Amber	Gaskets, Boots, Keypads, Overmolding, Shore D27
SLS	RM250	Nylon 12	Cream	Live hinges*, Rapid manufacturing, High impact, Melts at 150°C, HDT of 92°C, Chemical resistance
SLS	FR 105	Nylon 11	White	Same as RM 250, adds Fire retardant properties and Aerospace certification
SLS	AF Steel	Steel	Steel/Bronze	Tooling, Complex tooling inserts, Heat resistance 450°C, Thermal conductivity, High strength

Material Selector Guide

standards. The [11122XC](#) resin is the result of this reformulation and not only did it pass the most rigorous medical tests ([USP class VI](#)) it is also clearer, has a higher impact strength, and retains superior post build standards than its precursor, the 11120. For more on this resin, visit [www.axisproto.com](#) or click on the links in the article.



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AXIS sponsors U of T SAE racing team



On your Marks...

The [University of Toronto](#) celebrated its tenth year of competition in [Formula SAE](#). This year, the showdown was held at the Michigan International Speedway, just south of Detroit. Over 120 teams from six continents competed on a number of platforms which included both kinetic events such as braking, acceleration, and endurance, and static events such as a Marketing Presentation, a Cost Report, and Design.

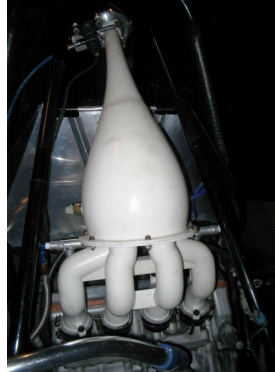
AXIS Prototypes was mandated to produce an intake manifold using SLS technology due to the high heat and impact resistance of sintered [Duraform Polyamide powder](#), which is essentially nylon 12 with certain additives. Due to its size, the manifold was built in 3 parts and assembled within tolerances post build. The goal was to test a new design to allow more air with less turbulence into the dyno. U of T engineering students Leo Simonis, Nilufar Damji, and Saqib Siddiqi were responsible for the design of the intake system. Mr. Simonis recalls that *“the intake system did not work as well as we had expected”* but notes that using RP technology *“helped us greatly in the development and understanding of the intake system”*. Recent RP material development continues to open up new applications testing using rapid prototyping. AXIS Prototypes has recently added to its available materials a [Fire Retardant material](#), which is approved for Aeronautic use. The team was very competitive this year finishing in



Manifold, pre-assembly

the top 10 percent of teams, 11th overall and turned out to be the top performing Canadian team. The teams best event was the design event which earned them 120 points out of 150 and fifth place.

“It has been a pleasure working with Axis and we appreciate all the support and dedication to winning. The parts were of a high quality and were able to withstand the environment they were used in. Axis exceeded our expectations in terms of the sponsorship they provided. The development of our intake system has been able to progress significantly with the help of the rapid prototype parts. We look forward to working with Axis in the future to continue with the development of our FSAE car.” says Leo Simonis.

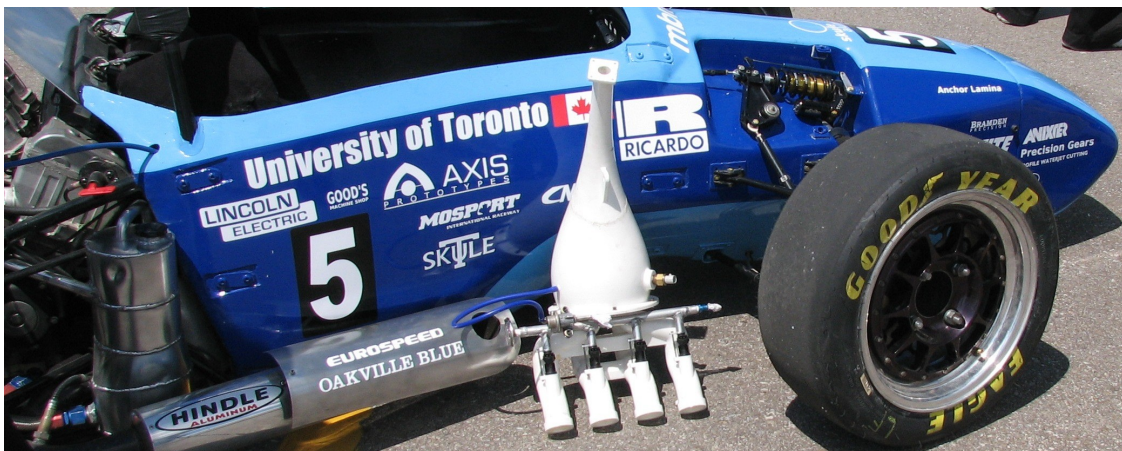


Assembled and installed



Awards and Trophies for U of T SAE

Likewise, the team at AXIS Prototypes was proud to be part of the 2008 winning team at the U of T and looks forward to helping in the future.



2008 U of T Formula SAE Racecar and Prototype intake manifold

IN OUR NEXT ISSUE:

- Axis model makers
AXIS model makers show their stuff.
- AXIS acquires third SLS machine
More capacity and more materials
- Mystery feature project

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