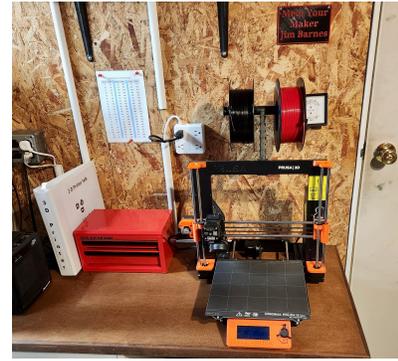


# 3D Printing and the Automobile Industry.



We had a great time hosting the May edition of Old Cars and Coffee in our humble Garage. One of the items that got more than its share of attention was the 3D Printer that was working away in the Office. You might question the relevance of such an item however 3D printing has had a major impact on how automobiles are produced today. So lets take a quick look at some of the impact that 3D Printing has had.

One of the first impacts was in the area of Prototype Development. Model makers use to have to hand craft models of specific parts. This was a laborious and time consuming process not to mention expensive. If the part did not work out then that process was began again. Startup costs for new designs or changes, dictated that you used as many existing parts as possible in your your new Models. You made major Model changes only after a number of years. 3D Printing has changed that whole prospective and you may have noticed major Model changes occur more frequently now.

The ability to easily produce and test has given the engineering folks the opportunity to dial in much needed changes. Complex shapes that were impossible using traditional methods are now commonplace. Many of these prototypes are produced in house in just a matter if hours and refined until perfected. Those 3D files can be shared across various departments and approved by all. Now you have a part that is highly developed and easily integrated into the manufacturing process.

Strength, weight and efficiency have been a constant and contentious battle in the Auto Industry. 3D printed parts can have support structures embedded in the individual parts. Something that's not available in traditional injection molding. This results in a stronger and lighter parts, reducing the overall weight of the Vehicle and making it more efficient.

One of the ways you make money in the Automotive Industry is by keeping your production costs down. If you are not paying Model Makers to produce Models for very expensive Molds you are indeed saving money. Instead STL files (Stereo Lithography File an industry standard 3D file) are shopped about to the many Print Farms that are quietly popping up all around the Country (a Print Farm can have hundreds of 3D Printers). You produce what you need to support production as required, now you are not having to warehouse huge numbers of parts.

Additive Manufacturing, as it is known by many in the industry, is on a pace to grow to a market of nearly 12 billion dollars by the year 2030! In this very competitive market no Manufacture is willing to pass up the opportunity and cost savings .