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|  | Tvasta Manufacturing Solutions Pvt Ltd |  |  |  |

Projects

# SLS - Plastics

## Product highlights

* Designed for energy efficiency and material savings
* Industry grade Quality
* Prints component size upto 30 cm in each dimensions.
* **Maximum Design Freedom**

## Scope of our Work

* Targeted to be used in footwear industry to manufacture customized Insoles and Mdisoles
* Form and Functional Prototyping

# PEEK FDM - Plastics

## Product Highlights

* Capable of printing PEEK, a high temperature thermoplastic.
* Extruder Temperature upto 500 degrees.
* Heat bed withstands 180 degrees.

## Targeted Applications

* Currently used for Exploration of PEEK for Medical Implants.
* **Print Advanced Engineering Materials.**
* Used in Aerospace Industry to print Industrial-grade thermoplastics for lightweight applications.

# BIG FDM - Plastics

## Product Highlights

* Designed for Form Prototyping in Automotive Industries.
* Dual Extruder.

## Targeted Applications

* Alternative method for pattern making in foundries.
* Used in Automotive Industries to quickly make prototypes crunching the time to reach the market.

# WAAM - Metal

## Product Highlights

* High Metal Deposition rates - 2-4 kg/hr
* Processes Aluminium, Stainless Steel, Copper

## Scope of Our Work

* Alternative method for pattern making in foundries.
* Used in Automotive Industries to quickly make prototypes crunching the time to reach the market.

# Bioprinter - Biomaterials

## Product highlights

* It is a syringe based extrusion process which offers a resolution of 100 microns.
* It has a position precision of 5 microns in XYZ axis.

## Scope of our work

* It can be used for printing scaffolds, used to support cells and tissues during growth stage.
* Work towards 3D Printing of Cornea which India needs the most as it requires 2.5 lakh corneas per year.
* Work towards Ear cartilage cells development

Factory Research Printer - Concrete

## Product highlights

* Factory Research 3D Printer made for testing the right mix of binder, aggregate, water, and other materials that can be used for 3D Printing
* First of its kind in India

## Scope of our work

* Aim is to Modernize construction process with Minimal Human Intervention
* To Build a system for Module Construction and Structural Testing

About us

Tvasta is a company founded by four IIT Madras alumni in 2016. Tvasta focuses on Industrial 3D Printing and is a Technology driven company that builds systems and applications for 3D Printing.

The business models around 3D Printing machines are still evolving. Also, the companies which intend to integrate 3D Printing into their production processes require hand holding for a substantial period of time.

In due consideration of the above-mentioned factors, the founders of Tvasta see a lot of potential in the high-end Industrial 3D Printing market and also see a lot of potential for pushing the boundaries of the possibilities using 3D Printing technology.