

## Hot Start-ups: The 3D future is here!

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Six years ago Mr Deepak Raj (44) experienced an entrepreneurial spark in his heart and desired to explore things on his own.

The result was the formation of Osteo3d, a [start-up](#) focusing on 3D printing for healthcare, offering customized solutions for healthcare applications by providing medical models for surgical planning and surgical guides using 3D printing technology.

A medical model is said to be a 3-dimensional representation of a part of the human body.

Thus, a 3D-printed medical model is a physical entity created from a digital medical image using 3D printing technology.

This model is used by healthcare professionals for surgical planning and reconstruction.

With this technology, surgical procedures can be conducted offline to validate implants and processes.

"This will help in the reduction of the duration of the actual surgical procedure, and result in better efficiency and accuracy," says the [start-up](#).

Customized surgical guides are used for special surgical procedures. Here, 3D printing enables the making of specialized surgical guides needed for special procedures.

Mr Deepak is also the founder of another [start-up](#) based on 3D printing technology - df3d - known as design factory for 3D printing.

df3d offers cloud-based platforms for designs and software in the area of 3d printing.

df3d helps starting a retail or online 3D printing business by providing them with end-to-end consultancy, support, software and design platforms to enable businesses.

Finding customers and sourcing funds were initially challenging for the young [start-up](#).

Mr Deepak managed to self-fund Osteo3d along with a grant from the Department of Biotechnology (DBT).

Revenues generated so far from customers is enabling Osteo3d to run its operations.

"Running behind investors, forgetting customers and not generating enough revenues will kill [a start-up](#)," he points.

Commenting on [start-up](#) trends, whether in the West or the East, Mr Deepak says, "There is a lot of hype in our world about [start-ups](#). Today, it is a planet of the Apps, isn't it?"

With a rich 22 years of industry experience, he advises all the budding entrepreneurs to focus on executing plans and solutions that customers will be willing to pay for.

"Create a business model where customer revenues drive growth. Establish an entity in such a way that you do not have to run behind investors. If they knock on your door, check them out," opines Mr Deepak.

Well, does running two [start-ups](#) simultaneously doesn't make him stressed? "Ha! What is that? Stress is fun," he replies instantly.

In his spare time, Mr Deepak adds that he cherishes photography and exercises his culinary skills.

He holds a Bachelor's degree in Electronics and Communication Engineering from Mangalore University, Karnataka.

Mr Deepak lists hard work, being frugal, perseverance and persistence as top indispensable qualities for being an entrepreneur in any industry.

He also shares that being an entrepreneur is a lot of hard work and not living a 'fancy life' as propagated mythically.

"There is no such thing as being your own boss or being independent while you are an entrepreneur. You have enough stakeholders who are thousand times worse than your ex-boss," notes Mr Deepak.