

1 Can you please explain about your company in simple terms?

The company is in the business of Unmanned Systems (USs). It was founded by a team of IIT graduates, developing fully autonomous indigenous UAVs (Aerial USs) for surveillance, reconnaissance and imagery applications. Our products stream and record live aerial video on a ground control station. Our UAVs are being sold to defense, police forces and govt. agencies. We want to inspire the surge of Unmanned Systems and grab majority share in small UAV market of our country, where we currently are the only player to have made sales. We make the easiest to fly, longest in air UAV's delivering the best video in their class globally. In 2009, we created the world's smallest and lightest autopilot at 10gms along with the first indigenous small UAV.

2 How was the beginning and what inspired you to step into the world of entrepreneurship?

ideaForge was started by bunch of IIT Bombay grads with the vision of giving wings to their ideas. Our team members individually and collectively participated and won in several Autonomous and other Robotics competitions, while studying at IIT Bombay. The founding team went on to represent India in ABU, ROBOCON'2005 in Beijing, China.

This passion for autonomous robotics did not go un-noticed and in the early days the company started receiving boot strapping projects in the form of creating UAV avionics from IIT Bombay, Aerospace Department. These initial projects and collaboration with IIT Bombay, led us to win MAV'2008 competition held jointly by Indian Army and DOD (USA) in AGRA for the best hovering platform. We shared the first prize with MIT, USA.

Our success in being able to make not just the avionics but also the capability to integrate the same with airframes, received a lot of accolades. We were pounded by a lot of inquiries from the Indian Defense Labs to assist them in creating micro and mini UAVs. Thus, we started our Unmanned Systems business due to overwhelming demand for our avionics and hovering platform from DRDO and Indian security agencies.

The inspiration to start ideaForge came from several internal motivations of the team such as the team itself. We firmly believed that it was winning team that had to work together from the word go to help us realize our dream of implementing our original ideas. We truly believed at that time that we will not be able to do justice to our energy and excitement for technology in any job or further studies opportunities that we had access to.

While working on several projects at IIT, we had broadly acknowledged the fact that we were able to get to 95% level in terms of technology implementation and performance, but that balance 5% that makes a technology a product was always missing. Repeatable performance of

our technology/products in the hands of other people was a strong motivator for us to develop our skills in that category. Therefore, using our existing efforts in IIT we were keen on developing marketable products.

We felt truly privileged to have studied in an institute like IIT, where we learnt to open our thinking and experiment so much. There was a drive to deliver value in return to the society that had given us so much during our education in IIT.

There was also a brazen confidence that we wanted to choose the more difficult of the paths available to us, i.e. starting a hardware start-up in India and making it work for us.

3 How did you raise the fund at the beginning? How many employees are with you?

Starting with our own funds and bootstrapping assignments for a friends company, we raised initial funds from TePP and TDB (through SINE). About a year later we raised angel investment and subsequently some other small investments have come in over the years. Mostly our funding has been supported by banks, friends and family in the form of working capital.

We have about 35 employees in the company including the promoters.

4 What is the scope of this venture?

The mandate of ideaForge is to create Unmanned Systems that can inspire our users to adopt them in their operations immediately.

I am not sure about the question actually. :0

5 Can you speak about the challenges you faced at the beginning? How did you overcome that?

A hardware start-up in our country is severely limited due to the following reasons:

- 1) Its rare to graduate with a solid, earth shattering, defensible IP, with a short time to market.
- 2) No private funds are available that bet on a team in this initial phase despite cases where there is a concept and a demonstrated ability to execute.
- 3) Essentially little or no encouragement in the eco-system as the bet is either on track-record that fresh grads don't have or on popular investment sectors which hardware is typically not.
- 4) One also gets to see a lot of opportunism and signs of "vulture investing" seeing as all of the above makes it difficult for the entrepreneurs.

Essentially, availability of financial resources has always been a question mark for us. We hope that the environment is changing for the sake of our country's ability to rapidly generate world class, home grown technologies in crucial sectors.

We are yet to solve this problem completely but yet we have been able to create an eco-system around that can support our needs on a case to case basis.

The availability high quality resources with relevant experience is also a stiff challenge in our space. We don't have the time and the patience to train people for extended durations to see results. An increased funnel in terms of screening more people as well as a bit of our visibility has helped us attract good talent.

#### 6 What are the future plans?

We are working on developing UAV's in several classes as they are defined by their size, endurance and range. We are also working on certain sub-system technologies that may revolutionize efficiencies of aerial platforms.

#### 7 who all are the key persons behind this idea?

<b>Team Member</b>	<b>Educational Background</b>	<b>Core Competence</b>
<b>Ankit Mehta (30)</b> Co-founder & CEO	B.Tech & M.Tech (DD) Mech. Engg., <b>IIT Bombay, 2005</b>	<b>Strategy, Innovation and Finance</b> ZS associates (0.5yrs)
<b>Ashish Bhat (29)</b> Co-founder & CTO	B.Tech, Elec. Engg., <b>IIT Bombay, 2006</b>	<b>Electronics &amp; Embedded Systems</b>
<b>Rahul Singh (29)</b> Co-founder & CTO	B.Tech, Mech. Engg., <b>IIT Bombay, 2006</b>	<b>Mechanics &amp; Project Management</b>
<b>Amardeep Singh (28)</b> Chief Marketing Officer	B.Tech & M.Tech (DD) Aero. Engg., <b>IIT Bombay, 2008</b>	<b>Marketing &amp; Product Support</b> su mitra Inc., India (1yr)
<b>Vipul Joshi (31)</b> Chief Operating Officer	<b>MBA, Univ. of Business and Finance, Switzerland, 2008</b>	<b>Logistics, Inventory, HR &amp; Compliance</b> Standard Chartered, India (1.5yrs) Arvin Meritor, Switzerland (1yr)

8 who are the major customers?

Our major customers are Indian Army, CRPF, NSG, BSF, Guj. Police, Mumbai Police, Etc.

9 How much has your business grown since inception in terms of: diversification and market presence?

We have been able to penetrate most all internal security and defense customers in the Indian market. We are currently the market leaders in India by a big margin in the small UAV space.

10 what unique branding techniques you follow to stay ahead of competition?

We are tied up with DRDO for the promotion of our products with various security and defence agencies in India. Having realised the rate contract with DRDO, we have been able to sell our product to several end customers.

We usually carry out no-cost no-commitment (NCNC) demonstrations with our clients. Due to our autonomous operation, the quality of video and the nature of the intelligence, users are able to immediately see the value of the system on the field.

11 Tell us about your management style

Our team has a very clear philosophy that no one is working for us. Everyone is working for the company and its vision. Therefore, each one of us have task to perform and we have to do that to the best of our abilities and even better. We treat all our employees at all levels as co-workers and treat them with respect.

We have a fairly risk taking attitude towards technology and do not shy away from doing pilots. Taking such controlled exposure to risk has helped us remain frugal and yet progress rapidly.