



The Zund Challenge

Team Name: **Zundagi na Milegi Dobara [ZNMD]**

Team Members:

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Project Name: **Forces at Play: The Art of Engineering**

Theme: **Kinetic Art**

This STATEMENT OF WORK ("SOW") is entered into by and between:

T-Works Foundation	Zundagi Na Milegi Dobara
Plot 1/D, 1/E, 1/F, Survey No. 83/1, Raidurgam, Ranga Reddy District, Hyderabad, Telangana 500081	Plot 1/D, 1/E, 1/F, Survey No. 83/1, Raidurgam, Ranga Reddy District, Hyderabad, Telangana 500081

Background

T-Works approached its employees to participate in the 'Zund Challenge' with an aim to utilise the capabilities of their equipment - 'Zund Digital Cutter'. The challenge is also aimed at upskilling the employees of T-Works by designing and developing products under various categories.

Concept:

We propose to create a series of innovative kinetic art installations that play with the 5 elements: water, wind, earth, fire and ether. The installations are supported by a base mechanism of a cam/track follower, provoking multiple outcomes as it interacts with different materials. Through artistry, mathematics and engineering, we aim to give the viewer an experience that is enigmatic, whimsical and evocative.

Objective:

To showcase our capabilities at T-Works; its multi-disciplinary ensemble of talent converging to create holistic, imaginative outcomes.

We aim to push the boundaries of a seemingly simple rotational device made of rigid structures, transforming its uniform motion into graceful, mesmerising movements. These experiential installations offer the viewer a sense of calm, perspective and wonder while it exemplifies the harmony between engineering precision and artistic expression.

Design & Engineering:

A series of three table-top, kinetic art pieces:

#1 "Airscape Ballet":

Design Concept	Features	Technical Specifications
The first installation involves the combination of wind and fabric to produce a mesmerising visual experience	The installation will feature a lightweight responsive muslin cloth that moves up and down, responding to the force of wind blowing upwards, from below	The airflow will be controlled by a series of cam followers, allowing for precise and adjustable manipulation of the wind's intensity and patterns powered by a stepper motor along its driver and a controller. This is also triggered by a

		PIR sensor to ignite the system.
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#2 “Ephemeral Waters”:

Design Concept	Features	Technical Specifications
A combination of the principles of fluid dynamics with mechanical engineering to create a subtle, hypnotic art experience	Three layers of slim clear acrylic boxes filled with coloured water and oil	The languid movement of the fluid inside these boxes will be controlled by a cam follower mechanism, resulting in an ever-changing visual display.

#3: “Leonardo's Dream”:

Design Concept	Features	Technical Specifications
Spiralling illusion of rigid structures transforming into a soft, fluid entity and arrive at a visual and vocal output that is natural to the mechanism	Wood, acrylic and ceramic Fibonacci shaped ribs in an abstract and divergent composition.	A modified cam and follower mechanism with projections of wood, acrylic and ceramic Fibonacci shaped ribs in an abstract and divergent composition.

Estimated budget

₹19,000/-