



**CHALLENGING AND IGNITING INQUISITIVE
MINDS TO BREAK GENDER STEREOTYPES
AND CATALYZE CHANGE**

Weaving a story of change by making stuff using STEM approaches and through that breaking gender stereotypes. We want all girls to be able to do anything they want. This campaign is an effort to raise funds to sustain the Jugaad Lab.

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Dimag ki batti jalna!! Impact of STEM education at the center

"No one ever thought that I, a girl can fix the TV. They did not have to call the TV mechanic when it broke down. I became the mechanic. It was simple. I just used what I had learnt at the Lab".

Sanjana, Age 11

When asked by the Jugaad Lab facilitator to narrate an incident on how they use what they learn at the lab, she narrated an incident where the TV was not working at her home and everyone thought it needed to be repaired by a mechanic. Sanjana checked the plug and saw that the wire connections inside it were loose. She re-connected the wires to the plug and TV started working again. Jugaad Lab teaches young girls to connect concepts of STEM to real life experiences.



Experiencing science concepts to life stories



"I see it in my house, my mother and me – we are the proton and neutron, who stay at home, whereas, my brother moves freely like the electron"

Manisha, Age 13

This was during a class where the concept of atom and electricity was being explained through an activity to understand electron, proton and neutron. Once this connection was made to their lives, the girls never forgot the concept of atom. They now use this analogy to explain circuits and how electricity flows. This discussion also interestingly triggered a discussion on gender norms and its impact on girls' development. The Jugaad Lab not only talks of STEM concepts but also helps the girls unlearn concepts and stereotypes around gender, rights and power dynamics in society.



Our space, our minds

Lighting a million questions

"We get bored at home. We just want to spend time in doing something that will let our minds think differently. Just keep it (the Lab) open, we will do something quietly and also clean it up. We will not disturb you while you are doing your office work"
requested the girls of Jugaad Lab when the summer vacation started.

They wanted to come every day to the Lab, rather than while away their time at home watching TV or playing on the cell phones. The girls now want the Jugaad Lab classes to happen all the 7 days of the week, from morning till evening. It goes to show that when given an opportunity and a safe open environment where they know their peers will support them and mentors will appreciate their inquisitive minds rather than shun them – girls shine.

Little steps of change



"I am making this electric fan using this plastic bottle for my grandmother as there is scarcity of electricity where she resides".

Shivani, Age 13

She was taught to create a motor in one of the classes of Jugaad Lab and now she is taking the learning back to her family. Through frugal readily available material, she is making a small stand fan that can be used in a remote village in Bihar. This is the ripple effect of igniting minds of young girls with STEM. You can see the spark of knowledge in their eyes, and confidence in their stride to achieve what their minds are set on. They are participants in their own change rather than stand alone subjects.

I can because I am not afraid any more

"I am very happy today. My English teacher appreciated me for using the word Renewable Energy in English. We had learnt about Renewable Energy yesterday in the Jugaad Lab, so I remembered it when my English teacher made a reference."

Narjina, Age 11

The lab not only teaches concepts of mathematics, science and technology, but also helps in overall development of the young girls through infusing them with confidence to step out of their comfort zones and try and explore, whether it is about science, technology, nutrition, gender or simple linguistic use and understanding. These young girls are not only accessing or using technology, but are actively engaging in its creation and being a part of the scientific/technical community.



Technology in our hands at FAT

"We don't get to touch the computers in school, so we use them here at the Lab and learn so much more, by doing whatever we want."

Rozi, Age 13

The Lab also dedicates some time for the girls to tinker with new age technologies like the computer, which today have become an essential part of career and education. At school they don't get to use computers even though they have a subject on computers. They also have to pass an exam on it. At Jugaad Lab the girls are guided through basic uses of the computer and the Internet, so that they are aware of what potential it has and how it is changing the way we respond to everything in the society today.





ABOUT THE INITIATIVE

Jugaad (Innovation) Lab is an out of the box and inspiring initiative of Feminist Approach to Technology (FAT), which creates a much-needed space for girls from disadvantaged communities to kindle their interest in Science, Technology, Engineering and Mathematics (STEM) fields. This space more popularly called 'the lab' by girls, is a place which sparks their imagination and aids their intellectual growth and development; a place where they can tinker, build, break and rebuild stuff to learn through hands on work and experimentation, all the while also learning STEM concepts.

The lab was started as a pilot project towards the end of 2015 in Lajpat Nagar, New Delhi with 8 participants and today we have a total of 20 participants, from ages 10 yrs to 15 yrs, mobilized from government schools and low-income communities near Lajpat Nagar, New Delhi. The lab has regular two/three hour classes everyday in the afternoon where a study schedule is followed. New concepts of STEM are introduced, new projects are initiated and completed, and after that, informal sessions on school work, issues at home, etc. are also discussed.

The classes were designed after understanding their school curriculum of Science and Math from class 6th to 8th so they could help them in school as well. We use tools like videos, projects, books, worksheets, games, activities and model-making to build their understanding around STEM subjects. We also organize exposure visits to different makers-spaces, museums, exhibitions, science fairs, etc. in Delhi so that girls can understand science application as well as get to use the equipment used in professional labs to get over their fears and inhibitions.



Jugaad – a colloquial north Indian Hindi word meaning - innovative fix, a simple work-around, solutions that optimize use of resources by bending norms.



Feminist Approach to Technology (FAT) is a not-for-profit organization that believes in empowering women by enabling them to access, use and create technology through a feminist rights-based framework. We believe and promote an outlook that questions and critiques the existing structures of technology and seeks to incorporate women as equal partners within it. FAT was established in 2008 and primarily operates in Delhi.

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WHY SUPPORT US?

After ten months of attending the Jugaad Lab, there is a visible change in the girls. They now understand science and math concepts and love making new projects. Initially, the team had to push them to learn new things, now they come up with their own ideas to make things. The Lab has become a place where they feel free to think, create, make, break and have fun as they learn. The girls enjoy the classes so much, they don't want to go back home.

The participants also have become the mouthpieces of the project and even encouraged their friends and relatives to join the Lab. Today they are bending the stereotypes of gender by igniting their minds to think scientifically, not only to learn but also to help their community.

The team of FAT has developed a space called Jugaad Lab for Girls in Lajpat Nagar, Delhi. It is space that is built to hold classes of the lab. Now we need to raise funds to sustain and continue Jugaad Lab for Girls in Delhi and maintain the infrastructure of this safe space for girls.

COME JOIN US ON THIS JOURNEY...

Be a sponsor for these girls.

Raise funds for them.

Volunteer with us for a year.

Sponsor activities at the lab.

You can contribute by logging into the following sites and making a donation

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