Event Report

1. **Name of Event:** Workshop on using Laser Cutter for Prototyping
2. **Nature of the Event:** Workshop
3. **Date:** 9th February, 2022
4. **Time:** 03:00 P.M. to 05:00 P.M.
5. **Venue:** 2nd Floor, Maker Lab - II, Anvikhsa, GUIITAR Council, GSFC University, Vadodara and https://meet.google.com/zyz-pirv-sio
6. **Organized by:** GSFC University, GUIITAR Council, SSIP, Startup Gujarat and IIC (MoE GoI)
7. **Number of Participants:** 25, Annexure – 1
8. **Speaker:** Mr. Sachin Kumar Chowdhary, Trainer, M-Tech Laser India Pvt. Ltd.
9. **Major discussions in the event:**

GSFC University, GUIITAR Council, Students Startup Innovation Policy (SSIP), Institution's Innovation Council (MoE) and Starup Gujarat organized a Workshop on using Laser Cutter Machine for Prototyping on 9th February, 2022 from 03:00 to 05:00 P.M. offline and online mode.

Mr. Kirankumar Parmar, Sr. Manager, GUIITAR Council has welcomed invited speaker Mr. Sachin Kumar Chowdhary, GSFC University Management, CEO-GUIITAR Council, Dean, Associate Deans, Students, Faculty and Participants.

Mr. Sachin Kumar Chowdhary explained the technical specification of the Laser Cutting and Engraving Machine to the participants.

1. Cutting and Etching Max. Area: 900 x 600 mm
2. Laser Cutting Machine Supported File:
    a. The most preferred format is .DXF (Export from Autocad, Solidworks, Sketchup, Rhino, Coreldraw etc.)
    b. PLT, BMP, JPG, AI
3. Material: Acrylic, Wood, MDF, Plastic, Rubber, Paper, Leather, Fabric, Foam Sheet, Stone, Glass, Fiberglass, Coated Metals, Painted Metals, Tiles, Ceramic

Mr. Sachin Kumar Chowdhary explained the working principle of a Laser Cutting and Engraving Machine. He said in a Co2 laser cutter, light is produced when electricity runs through a gas-filled tube with mirrors at both ends. One mirror is fully reflective

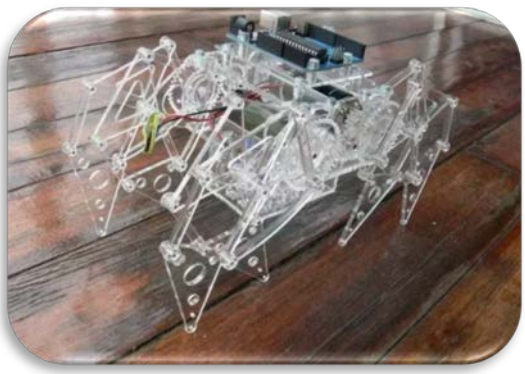
while the other one lets some light come through. These mirrors guide the laser beam into the material that is to be cut. The gas is typically a mixture of carbon dioxide, nitrogen, hydrogen, and helium. Since the light from a laser is infrared, it is invisible to the human eye. It is used for Cutting, Engraving, Marking, Photo Printing and Origami. He also explained air compressor, chillier and blower usage to run Laser Cutting and Engraving Machine.

Mr. Sachin Kumar Chowdhary explained RDWorks software usage for operating Laser Cutting and Engraving Machine. He explained Power and Speed parameters for cutting and engraving operation on various materials. He also explained machine usage through software and keypad (manual). He performed cutting and engraving operations and also engaged participants to perform similar operations. He also explained safety rules to use laser cutter & engraving machine as it will damage eye/skin if it will direct contact in a laser beam.

Mr. Kirankumar Parmar shared Laser Cutting & Engraving Machine Manual, RDWork software application and user manual with participants. He also shared some examples of Laser Cutting Machine usage with the participants.







Mr. Kirankumar Parmar, Sr. Manager, GUIITAR Council expressed the vote of thanks to the Participants for attending the workshop and Sr. Management, GSFC University for guidance and support.

10. Learning outcomes of the event:

Participants learned correct and effective use of laser cutting machine for rapid Prototyping. They understand the working principles of laser cutting and engraving machine, its application, material selection for cutting, engraving/etching, software usage and machine operating.

11. How will it be useful for Students/School/University:

Participants will use Laser Cutting and Engraving Machine installed at Maker Lab –II, GUIITAR Council for their PoC/Prototype Development with a minimum cost.

12. Resources:

A. Manual: Click here
B. RD Work Software Application: Click here
C. RD Work Software Guide: Click here
D. Workshop Recorded Video: Click here

13. Photos:


REC
GSFCU- is presenting
GSFCU-
dax
You
ashvin
3 others

Annexure-1

Participant Details:

Sr. No.	Full Name (Name Father name Surname)	School Name	Division	Sem	Category	Mobile No.	Email Id	Gender
1	Shamik Maheshbhai Patel	SoT, GSFCU	CSE	1	OPEN	9429681710	21bt04087@gsfcuniversity.ac.in	Male
2	Dhyey Sanjaybhai Savaliya	SoT, GSFCU	Chem. Engg.	1	OPEN	9537714290	21BT01010@gsfcuniversity.ac.in	Male
3	Smit Harishchandra Sonar	SoT, GSFCU	CSE	1	OPEN	8401450626	21bt04123@gsfcuniversity.ac.in	Male
4	Khyati Ashish Shah	SoS, GSFCU (B.Sc.)	Biotechnology	4	OPEN	9157315777	20sc02027@gsfcuniversity.ac.in	Female
5	Dr. Ghanshyam Tejani	SoT, GSFCU	Teaching	Teaching/Non-Teaching	OPEN	9824899801	ghanshyam.tejani@gsfcuniversity.ac.in	Male
6	Virajkumar Vinay Kumar Patel	SoT, GSFCU	CSE	4	OPEN	8140390836	20bt04039@gsfcuniversity.ac.in	Male
7	Dutt Kalpeshbhai Parekh	SoT, GSFCU	Mech. Engg.	6	SEBC	9106760063	parekhdutt222@gmail.com	Male
8	Deven Mukeshbhai Gohel	SoT, GSFCU	Mech. Engg.	6	SEBC	9054969960	19BT02004@gsfcuniversity.ac.in	Male
9	Hrishikesh Satish Singh	SoT, GSFCU	CSE	1	OPEN	8490063271	hrishikeshsingh1320@gmail.com	Male
10	S.K Sahoo	SoT, GSFCU	F&EHS	4	OPEN	8260861314	20bt05010@gsfcuniversity.ac.in	Male
11	Ashvinkumar Boghabhai Kapadiya	Other	Mech. Engg.	Teaching/Non-Teaching	OPEN	9429344549	ashvinkapadiya0709@gmail.com	Male
12	Parth Piyushbhai Shah	Other	Mech. Engg.	Teaching/Non-Teaching	OPEN	9429084243	parth.enthu@gmail.com	Male
13	Kush Daxesh Sata	SoT, GSFCU	Chem. Engg.	1	OPEN	9537927470	21bt01048@gsfcuniversity.ac.in	Male

14	Anuja Rahulbhai Kale	SoS, GSFCU (B.Sc.)	Biotechnology	4	OPEN	9725206063	20sc02003@gsfcuniversity.ac.in	Female
15	Dax Patel	Other	Other	Teaching/Non-Teaching	OPEN	7575064801	daxpatel34567@gmail.com	Male
16	Nikunj Fuletra	SoT, GSFCU	Mech. Engg.	5	OPEN	7041666766	19bt02003@gsfcuniversity.ac.in	Male
17	Krishkumar Bharatbhai Patel	SoT, GSFCU	CSE	1	OPEN	7862059560	21bt04081@gsfcuniversity.ac.in	Male
18	Smit Harishchandra Sonar	SoT, GSFCU	CSE	1	OPEN	8401450626	21bt04123@gsfcuniversity.ac.in	Male
19	Jayesh Bhimabhai Vagh	Other	Other	6	SC	7487899510	20ec191.jayesh.vagh@vvpedulink.ac.in	Male
20	Akshesh Ghanshyambhai Paladiya	SoT, GSFCU	CSE	4	OPEN	9537716277	20bt04028@gsfcuniversity.ac.in	Male
21	Meet Patel	SoT, GSFCU	CSE				21bt04084@gsfcuniversity.ac.in	Male
22	Janak Patel	SoT, GSFCU					21bt04098@gsfcuniversity.ac.in	Male
23	Vedant Shah	SoT, GSFCU					21bt04116@gsfcuniversity.ac.in	Male
24	Parth Bhavsar						parthbhavsar20990@gmail.com	Male
25	Mr. Kiran Parmar	GUIITAR Council	GUIITAR Council	Non-Teaching	Open	9313262712	kiran.parmar@gsfcuniversity.ac.in	Male