

## PARENTS

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## HOBBIES

General Purpose Programming  
(Python, Django, HTML/CSS/JS, Java)

Ideation of Solutions to real-life  
problems (Entrepreneurship)

Robotics

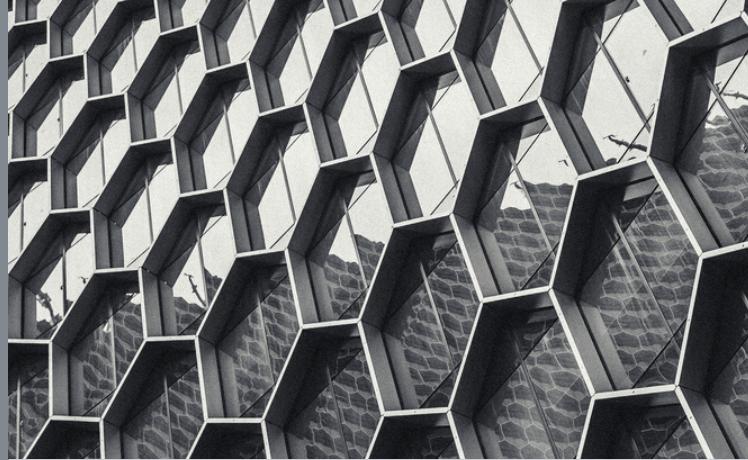
Maths

Sketching

Designing

Music

Photography



## ACADEMICS

2022

**10th Grade - 92%**

2023

**IDBP First term - 37/42**

## SKILLS

Mechanical Engineering

Chassis Designing

Programming and Algorithms

Algorithms and Data Structures

Python w/Django Web Dev

Java

Physics

Maths

Node JS

Electron (Library for Node JS)

Arduino + Pi

Revit

Sketchup

3Ds MAX

CAD (AutoCAD/Gstar)

Onshape

Flutter (App Dev)

Problem-solving

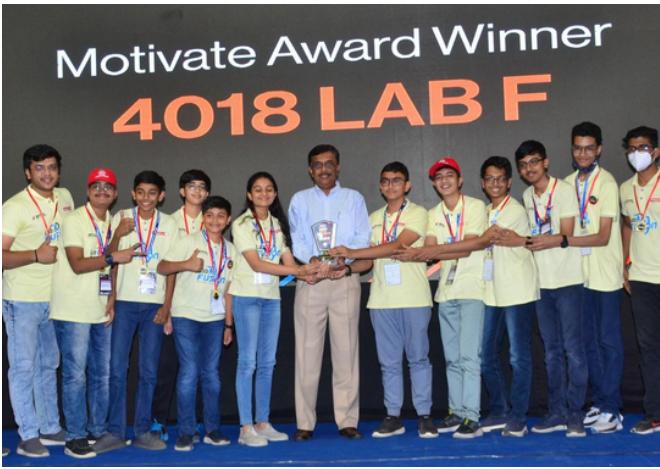
Entrepreneurship

Canva

Google Slides + MS PowerPoint

Lightroom Classic

Cero



## PREVIOUS COMPETITIONS

2015-IRO

**Programming lead**

2016-WRO

**Programming lead**

2017-18 FIRST

**Hydrodynamics FLL, project joint lead**

2019-20 FIRST (in Top 10 Nationally)

**City Shaper FLL, project joint lead**

2021-22 FIRST (Won Motivate Award, Nominated fpr DL semi-finalist)

**Freight Frenzy FTC, (Bot, CAD, Outreaches - Gold Medalist**

2022-23 Ongoing FIRST - Dean's List Finalist Trophy Winner

**Team nominated for Innovate, Think & Connect award. Won Super Inspire Award at Nationals**

## COMMUNITY OUTREACH

community service in my school for 3 weekends

Participated in a plantation drive in community

Ally member of Association of Alliance Clubs International (Feelings Club 5)

Taken multiple workshops of Django, Python & Computer Algorithms in my school

Designed an air purifier using locally sourced materials for underprivileged schools



## WORK (TECH AND CREATIVITY)

### ARCHITECTURE (ENTREPRENEURSHIP SKILLS)

This is a 5BHK apartment converted to 4 BHK for my client. This was entirely designed by me. I had to work with a client and convince them, which shows my entrepreneurial skills.

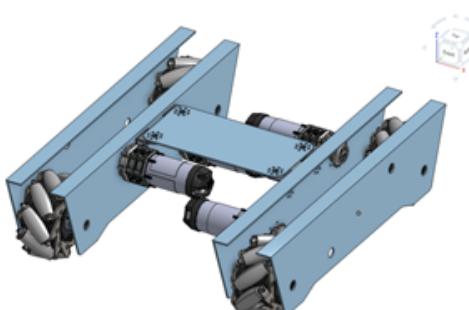


### CAD

This is a laptop stand that I designed using Onshape. The best part about it is that it can be easily modified because the entire design was made using variables. I have made this so that it can be 3D printed and sold as a product. This shows my entrepreneurial skills.



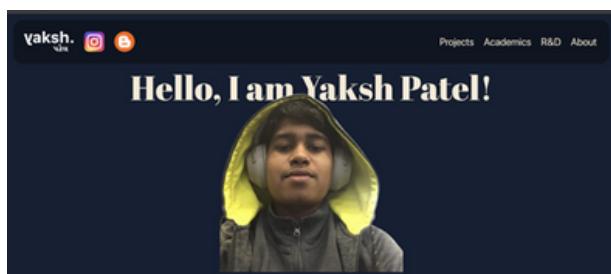
This is a custom robotic arm which was made for application in the diamond industry. This arm makes use of precision servo motors to allow such movement. It features a balanced platform which can hold grabbers and other tools, making it quite upgradable and useful. I had pitched this to different diamond companies, out of which one company was quite interested in the same. This shows my entrepreneurial and creative skills.



This is a working version of the new 2023 chassis for PowerPlay. This shows my technical skills and expertise in Onshape.

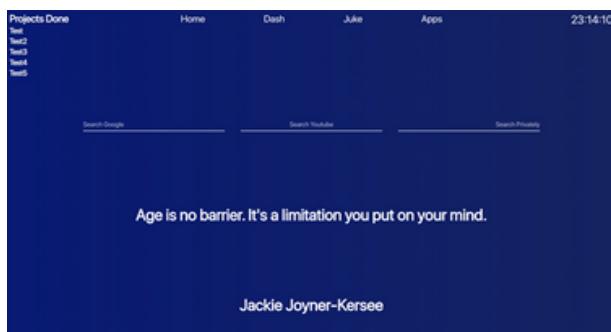


This shows my fluency with legacy and other CAD softwares, which may not be directly related to robotics at first glance. It also shows my observational and architectural skills.



## GENERAL TECH

{WIP} This is my personal website that I am making with Django and Pure CSS (For the most part). This shows my web dev skills, along with programming skills (backend in Django). It shows that I can design responsive websites as well.



This was one of the first web apps that I would create with Django-Python. It consisted of a project management-showcase system (which I use in my personal website as well). This primarily shows my backend programming skills.



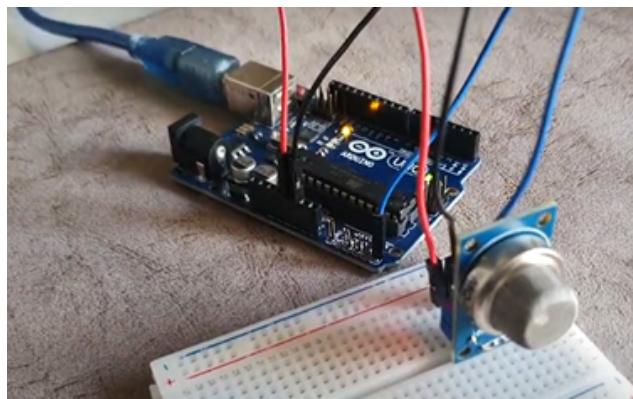
This is an app that I made for FS, during which I had to communicate with FS as an organization. This shows my entrepreneurial skills, as well as web development skills (backend+frontend). In this product, I had to filter data and convert SWD files to more readable formats, which the website processed in the backend, which was displayed on the site. It shows that I can build complex software architectures for varied applications.

Today's timetable

D1, 29 December 2022, Thursday

ST	1	Break	2	3	4	Break	5	6	7
8:00 to 8:45	8:45 to 9:30	9:30 to 10:15	10:15 to 11:00	11:05 to 11:50	11:55 to 12:40	12:40 to 13:15	13:10 to 13:55	14:00 to 14:45	14:50 to 15:35
ST	BM B1	Break	Eng B2	Free	Free	Break	TOK	Phy	MAA

I made this humble application out of necessity. The original timetable was too cluttered, so I made this with nodeJS and Electron. It is a lightweight application that shows my personal timetable in a more organised way. It fetches from Google Calendar about today's day and shows the timetable accordingly. It shows my tech and creative skills.



This is the AQI sensor working with Arduino for an air purifier that my team designed for India Innovation Challenge. My school also has said they are interested in the deployment of these air purifiers in their classrooms. We came 7th nationally and won the school category internationally in Auro University's Gandhian Innovation Challenge. This shows an application of FIRST Core values, as well as entrepreneurial skills.

**Nature**

The environment is what has sustained human life for eons, and it is what we need to survive in the future. Problems like air pollution are leading to the contamination of our planet, impacting generations to come. This product proposes a long-term solution by implementing large-scale air purification in our school environments.

Fans pull air into the special 5-layer filter which removes over 95% of particles larger than NaCl. A charged wire mesh inside attracts and stores heavy metals and CO2 which can then be converted into C and O2 for other uses. The filter funnels the air towards the plant placed in the center, allowing it to further convert more CO2 into clean O2.

The plant also contributes to environmental awareness in the classroom and nurtures a future-oriented mindset in the leaders of the future, promoting sustainability and blazing a trail towards a brighter future, starting in our classrooms.

# School Air Purifier

By Ryan, Yaksh, and Yug of Fountainhead School

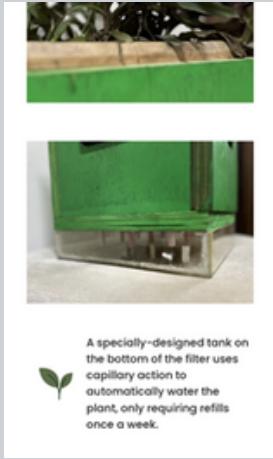
A student-wired air quality sensor verified that our product can raise air quality by up to 33%, dropping from AQI 88 to 59 within 15 minutes.

Four fans on all sides of the purifier help to cover the widest area and purify the most air possible.

The entire product is composed of recycled materials and can easily be mass-manufactured and implemented in classrooms across the world, not only combating climate change but also helping students to be healthier.



Our product satisfies the three pillars of sustainability as it is economically, socially, and environmentally viable.



```

def checker_3():
    global STOP1
    P1 = fetch()
    if P1 <= STAR1:
        print('Sell 1, STAR')
        STOP1 += 0.5
        set_trade()
        trade_sell()

    else:
        print('Buy 1, STAR')
        STOP1 -= 0.5
        set_trade()

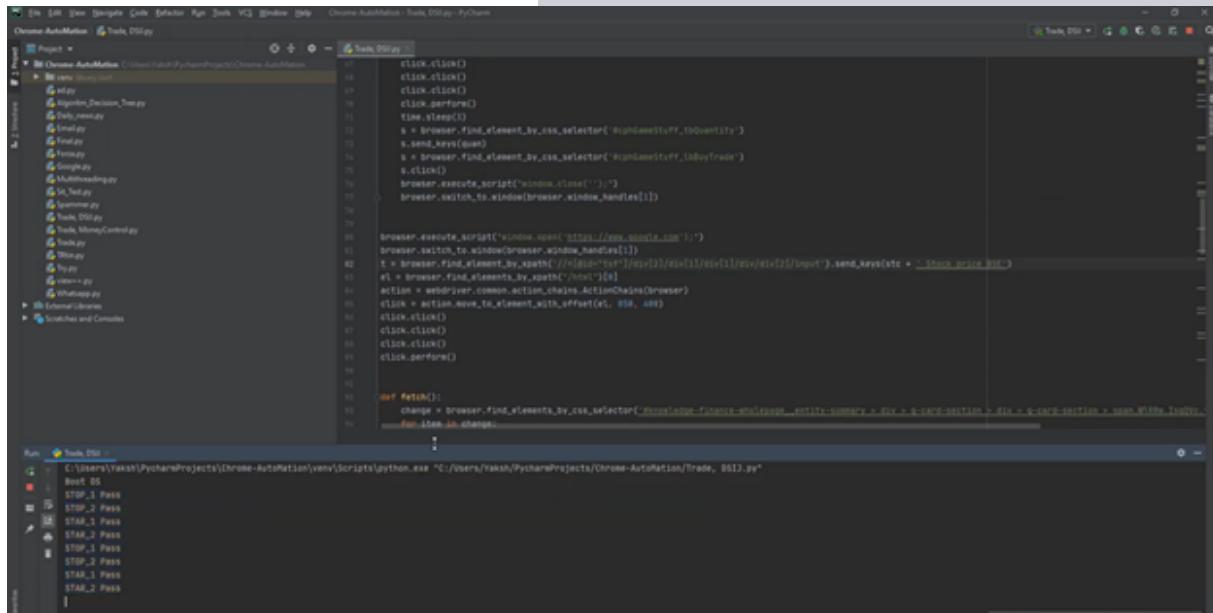
def checker_4():
    global STOP2
    P1 = fetch()
    if P1 <= STAR2:
        print('Sell 2, STAR')
        STOP2 += 0.5
        set_trade()

    else:
        print('Buy 2, STAR')
        STOP2 -= 0.5
        set_trade()

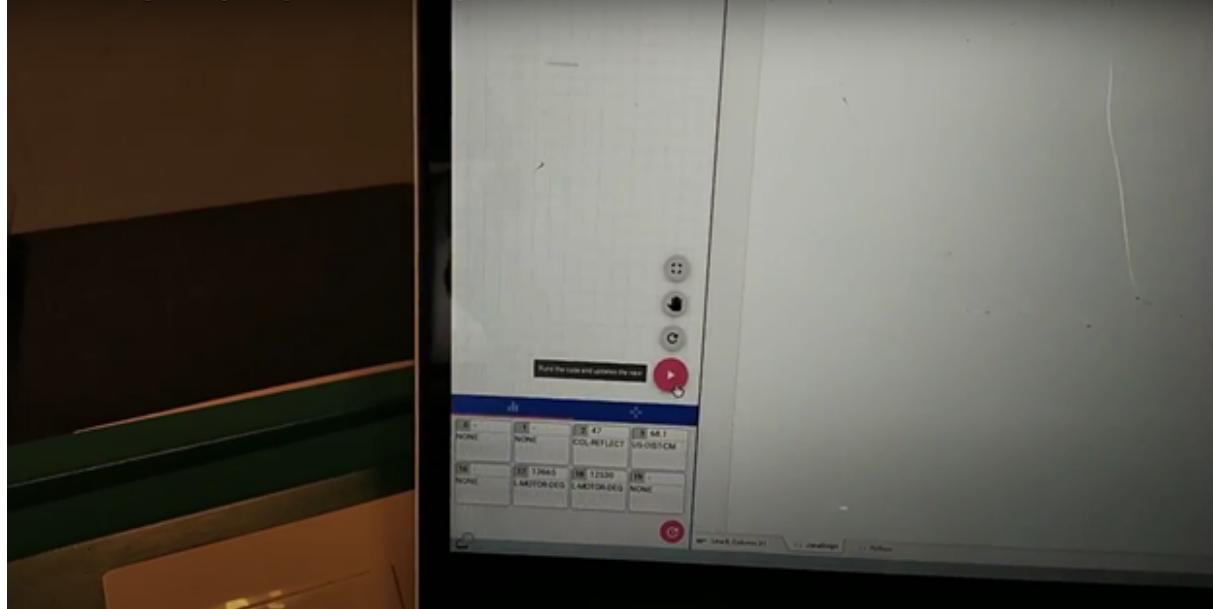
```

\*Code Conditions,  
set by user

This was a web scraping/automation-based auto-trader that I made in lockdown. It's simple maths to check if the price of a stock is in the range (set by the user) to sell/buy in automatic quantities. I did test it with dummy trading platforms and it performed well. It shows my math, programming and algorithmic skills.



Maze solving task by using Edubot & Coding with chrome software (Yaksh - Mavericks).mp4



This shows my technical skills in using Java with Lego EV3 for programming.

**"Learning never exhausts the mind"**