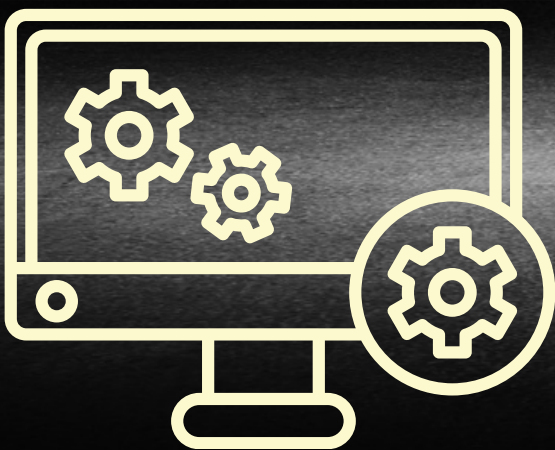
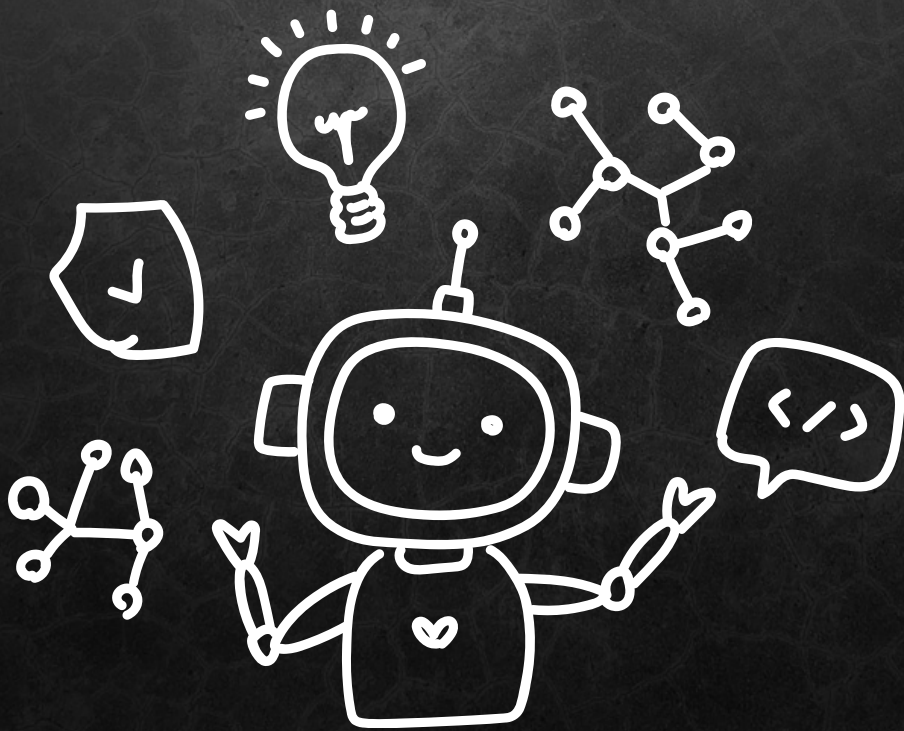


QUEST

JANUARY EDITION



SCIENCE

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OUR EDITORIAL TEAM



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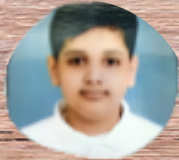
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Quest is an engaging platform for students to express their scientific and mathematical creativity through cartoons, art forms, creative writing, research articles, analysis, paintings, drawings and other forms relative to General Science and Mathematics.

All the students of classes P4- SS2 are encouraged to bring forth their scientific temperament in any representation of writings, videos, photography or art forms.

VR HOLOGRAM

Hologram project is a fascinating part of Augmented Reality (AR) and Virtual Reality (VR). It turns a simple acrylic sheet into a magical show that creates a 3D holographic display inside it.

The acrylic sheet is shaped like a trapezoid, which bends light in unique ways, forming cool patterns. You can see floating images that seem real but aren't really there, depending on where you look from. The trapezoidal shape is the key to the hologram's magic. It's like having a mini holographic world inside this simple acrylic sheet.



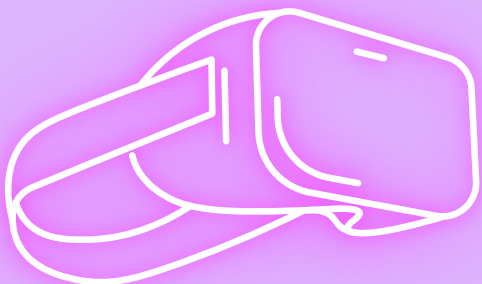


**Made by : Kaavish Dey(M1A)
Ridit Mukhopadhyay(M1B)
Shaurya Shrivastava(M1A)**

VR ROOM

Dive into an amazing virtual reality experience with our A-Frame-powered VR Room on Glitch! This project combines A-Frame's simplicity for creating virtual spaces with Glitch's collaborative coding platform. Step into a captivating 3D environment where you can explore and interact with a seamless blend of creativity and technology.

Using intuitive controls, navigate through the VR Room and discover interactive elements that respond to your movements. Best of all, it's a collaborative effort—remix and customize the code on Glitch to contribute to the evolving world of virtual reality. Whether you're a VR enthusiast or a curious coder, our VR Room invites you to a space where imagination knows no limits.



**Made by : Samaira Gulati (M1E)
Agastya Puri (M1A)**



AR ID CARD

The AR ID Card project is like magic for ID cards! We use something called AR technology (that's Augmented Reality) to make regular ID cards way cooler. It's not just about looking high-tech – it's about making IDs more useful.

Imagine if your ID card could do more than just show your name and picture.

With our AR ID Card, it comes to life on your phone or

tablet! You point the camera at it, and suddenly, there's extra information right there. It's like having a secret world on your card.



This project isn't just for fun - it's practical too. Schools, companies, and other places where IDs are important can use our AR ID Card. We believe in the power of AR to make things better. This project is just the start. The AR ID Card project isn't just about today; it's about creating a future where IDs are not just pieces of plastic; they're interactive, dynamic and exciting



**Made by : Atharva Kapoor(M1B)
Raghav Tripathi(M1E)**

VR

SOLAR SYSTEM

The Solar System project, built with A-Frame on Glitch, offers an exciting VR adventure to explore space. A-Frame, a cool web tool that uses HTML, is the foundation. The whole virtual reality setup is wrapped in the `<a-scene>` tag, and each planet is like a character using the `<a-entity>` tag with the `gltf-model` attribute, bringing detailed 3D models into the experience.

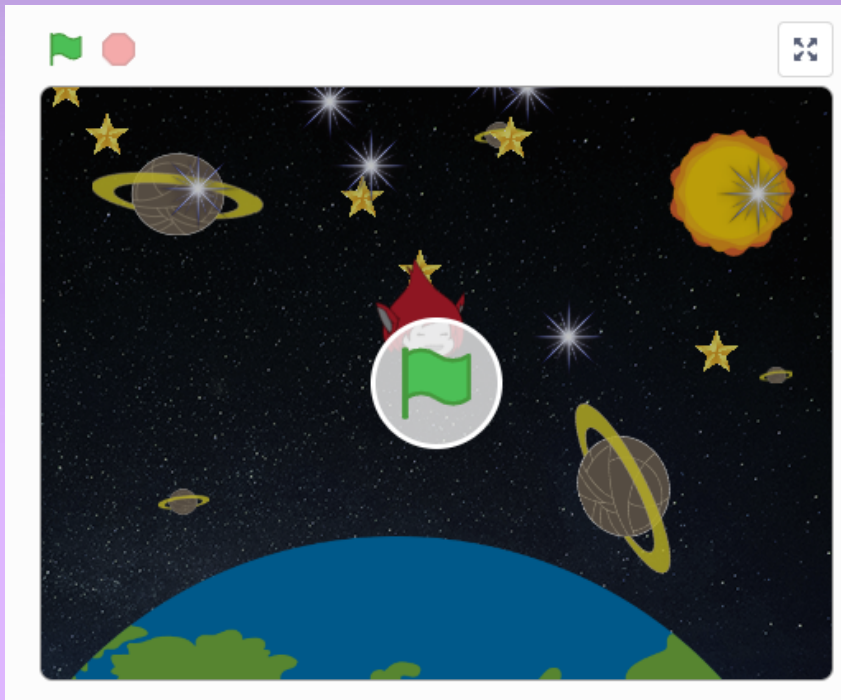
Glitch helps us work together easily and quickly deploy our project. It's like a playground for coding teams. With Glitch, testing and sharing the project is smooth, and users can jump right into the experience without extra downloads.



**Made by : Parth Arora(M1E
Sambhav Khattar(M1C)
Chiranjiv Singh (M1D)**

SCRATCH

AIMS IN THE SKY



Instructions:

To start the game, first press the green flag. For Giga to aim at the stars, press up, down, right and left arrow keys to move it in different directions.

To stop the game, press the red button.

The more you score, you win!


Hope you enjoy the game!

Thank You.

LINK

<https://scratch.mit.edu/projects/908022279t>

Made by : Mayra Miglani
Class : V

Start 

Turn RIGHT 

If then

SCRATCH

MISSION CHANDRAYAAN

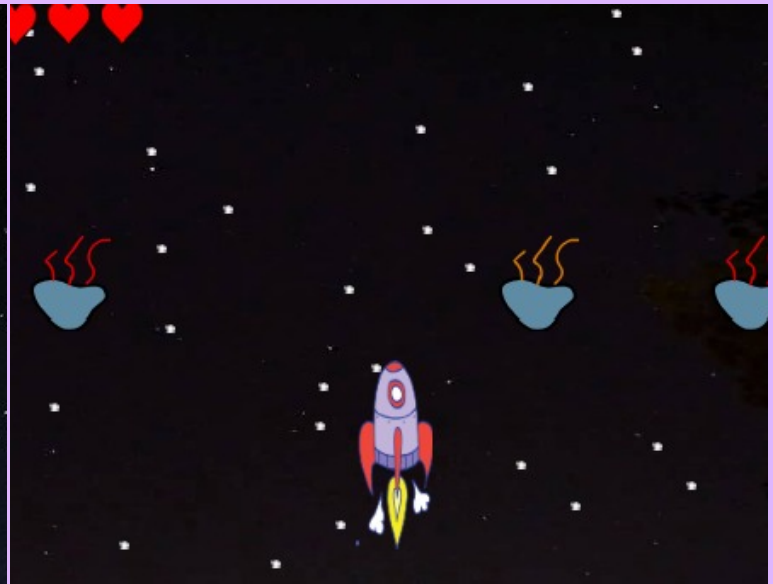
Welcome to "Mission Chandrayaan: Lunar Escape," an exhilarating space adventure created on Scratch! Embark on a thrilling journey to the Moon as you command the Chandrayaan spacecraft, navigating through the vast expanse of space and dodging menacing meteorites that threaten to derail your mission.

Chandrayaan 3 simulator

START



HELP

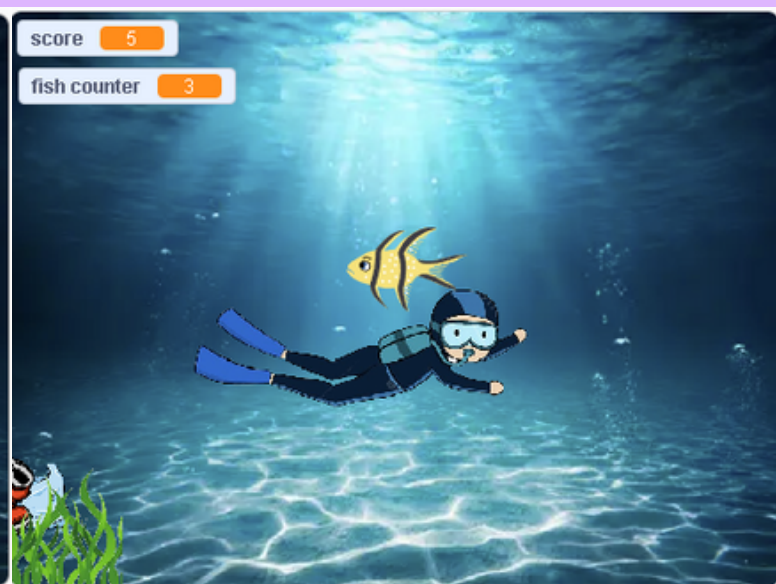
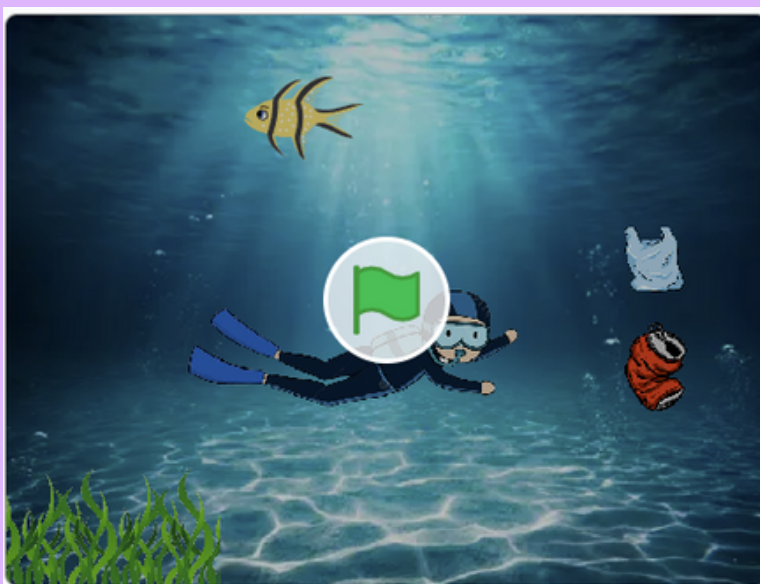


**Made by : Aarav Gupta(M3B)
Aarav verma(M3B)**

SCRATCH

SAVE THE SEA

In this game, your objective is clear: clean up the ocean by removing floating garbage while avoiding any harm to the delicate marine ecosystem. Every piece of trash you collect earns you points, bringing you closer to the goal of creating a cleaner, safer habitat for marine life. But tread carefully, for the sea is a delicate balance, and harming the vibrant fish inhabitants will cost you dearly in points.



Made By
Siddhartha Garg M2D
Tanishka Keshri M2D



MINECRAFT

FARMING FUTURES

"FarmCraft: Seeds of Knowledge," an exciting and educational game set in the enchanting world of Minecraft! In this immersive experience, young players embark on a journey to learn the art and science of farming, cultivating their own virtual fields while acquiring valuable insights into the principles of agriculture.



Made by :Renit sharma P4 A
Reyansh Sharma P4 C

AI-BASED CROP DISEASE DETECTION FOR ENHANCED AGRICULTURAL YIELD



Algorithm Overview:

The core algorithm for the AI-based crop disease detection system involves training a Convolutional Neural Network (CNN) to classify images as either healthy or diseased crops.

Tools and Technology used:

- **Python:** The primary programming language for implementing the AI model and data processing.
- **TensorFlow or PyTorch:** Deep learning frameworks for building and training the convolutional neural network (CNN) model.
- **OpenCV:** Image processing library for preprocessing tasks like resizing, normalisation, and noise reduction.
- **Flask/Django:** Web frameworks for building the user interface and deploying the application.
- **Mobile App Development Tools:** For creating mobile apps that interact with the AI model.
- **Database:** Storing user data, images, and model parameters for continuous learning.



Made by :Krishna (S1D)

CAMERA ENABLED REMOTE CAR



"Project Guardian Wheels," an innovative student endeavor that propels the realms of technology and security into a dynamic fusion. In this ambitious project, student has engineered a cutting-edge robotic car equipped with an advanced camera system, designed to redefine surveillance in the modern age.



Made by :Parth Chawla (S2C)



PODCAST: "INFINITY INSIGHTS"

Welcome to an engaging exploration of the world of Artificial Intelligence in our podcast-style video, brought to life through the captivating platform of Animaker. In this unique production, we've created a virtual podcast setup where a curious student delves into the realm of AI, sparking an insightful conversation filled with questions, curiosity, and a thirst for knowledge



Made by
Parth Juneja(M2E)
Maanvik (M2B)
Jishnu Ganguly(M2E)
Milan(M2A)
Medhansh Sonavane(M2C)



MEDI BANG MS PAINT

➤ DIGITAL ART

Digital art is any artwork that draws upon digital technology as an essential part of its creative process.

➤ PURPOSE OF DIGITAL ART

Some creatives use technology to enhance their traditional, physical artwork. A painter could upload their work to editing software to improve an individual stroke, deepen a shade or add an entirely new colour.

➤ FLEXIBILITY WHILE DOING DIGITAL ART

Switch between tools and colours in just a few clicks. You won't have to worry about refilling your palettes, either

Made By

Yug Gupta S2 A
Nitya Bansal S2A
Darsh Bhati M3B
Daksha Ranka P3 A
Yuvraj Mann P3A
Ayanna Bansal P4 B
Gauraansh Anthwal P4B
Vikhyat P4B
Renit sharma P4 A
Reyansh Sharma P4 C
Kriyansh Thukral P2D
Aarna Raj P4A



AUTOMATIC HAND SANITIZER

PRINCIPLE

THE AUTOMATIC HAND SANITIZER DEVICE IS EXPECTED TO CONTRIBUTE TO CONTACTLESS HAND DISINFECTION IN PUBLIC PLACES AND VIRUS INFECTION PREVENTION.

USAGE

AUTOMATIC HAND SANITIZER DISPENSERS ARE USED TO KEEP HANDS CLEAN AND PREVENT THE SPREAD OF GERMS.

MADE BY:

- SARAH IYER P5C
- MAYRA MIGLANI P5C



HEIGHT MEASURING MACHINE

PRINCIPLE

THE HEIGHT MEASURING IS EXPECTED TO REPLACE THE MANUAL HEIGHT MEASURING MACHINES AND GIVE MUCH MORE ACCURATE READING

USAGE

THIS DEVICE IS BEING USED IN MULTISPECIALITY HOSPITALS AND MOBILE AMBULANCE



MADE BY

- ARNAV RAJ P5B
- ARYAN BAJAJ P5C
- RIBHAV SHARMA P5B
- AARUSH BANSAL P5B

AIR PURIFIER

PRINCIPLE

AN AIR PURIFIER OR AIR CLEANER IS A DEVICE WHICH REMOVES CONTAMINANTS FROM THE AIR IN A ROOM TO IMPROVE INDOOR AIR QUALITY.

USAGE

AIR PURIFIER IS BENEFICIAL FOR ALLERGY SUFFERERS AND ASTHMATICS, AND AT REDUCING OR ELIMINATING SECOND-HAND TOBACCO SMOKE.



MADE BY

- HRIDEY P5C
- VIAAN SHARMA P5A
- PRANJAL SINGH P5B
- MEHAN PRAJAPATI P5E
- SHREYANSH SINGH P5E
- JAPMANN P5B
- PANKHURI SHARMA P5E
- SWASTIK TOKAS P5A
- DEBARGHYA P5D

WATER SHIP

PRINCIPLE:

A SHIP CAN FLOAT WHEN THE MASS OF WATER THAT IT DISPLACES IS EQUAL TO THE MASS OF THE BOAT. THIS DISPLACED WATER CAUSES AN UPWARD FORCE CALLED BUOYANCY. BUOYANCY ACTS IN THE OPPOSITE DIRECTION OF GRAVITY, WHICH PULLS THE SHIP DOWN.

USAGE:

SUBMARINES ENABLE COVERT NAVAL OPERATIONS, DEFENSE, AND RESEARCH BENEATH THE WATER'S SURFACE, ENHANCING MARITIME CAPABILITIES AND STRATEGIC MANEUVERS.

MADE BY:

- KAAVISH DE M1A
- SHOURI BERA M1C
- PRANAT AGARWAL M1C
- AGAMPREET SINGH M2A
- MEDHANSH KUMAR M1D
- VIVAAN ROY CHOUDHARY M1E
- DARSH TONGAR M1D
- REYASH TANEJA M1E
- ZEESHAN IMAM M1C

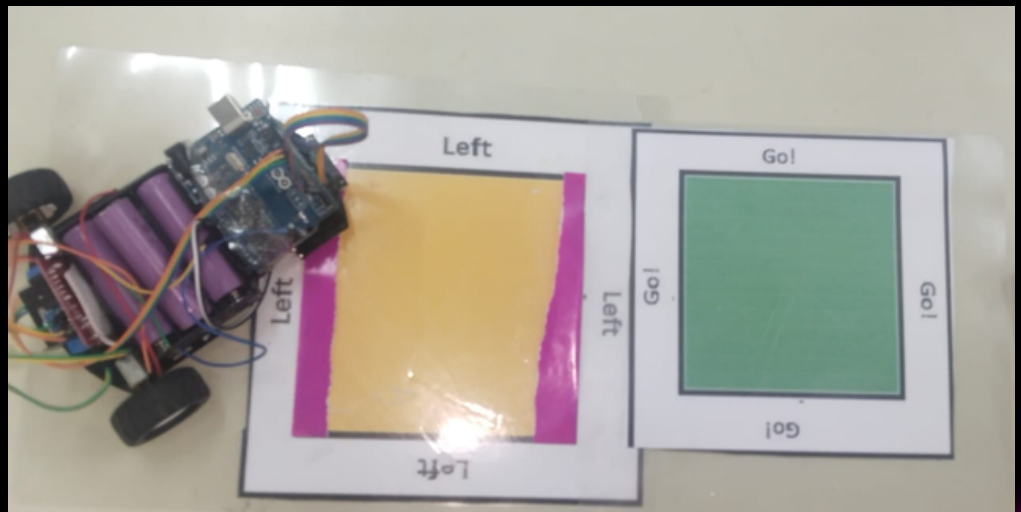


COLOUR SENSING CAR

PRINCIPLE

COLOR-SENSING CARS UTILIZE ADVANCED SENSORS TO RECOGNIZE AND RESPOND TO SURROUNDING COLORS, IMPROVING SAFETY BY IDENTIFYING TRAFFIC SIGNALS, POTENTIAL OBSTACLES, AND ADAPTING DRIVING BEHAVIOR ACCORDINGLY.

AUTONOMOUS NAVIGATION: THESE VEHICLES LEVERAGE COLOR DATA FOR REAL-TIME ENVIRONMENTAL AWARENESS, FACILITATING ADAPTIVE DECISION-MAKING IN AUTONOMOUS NAVIGATION, MAKING THEM MORE ADEPT AT VARIOUS DRIVING SCENARIOS.



MADE BY:

- MANVIK BHARDWAJ M2B
- CHAITANYA AGGARWAL M2B
- SHAURYA CHAWLA M2D
- AADIT DESWAL M2A
- ARMAAN SINGH M1A
- HEMANG SAINI M1B
- YASHVEER SAGAL M1B
- PARTH JUNEJA M2E

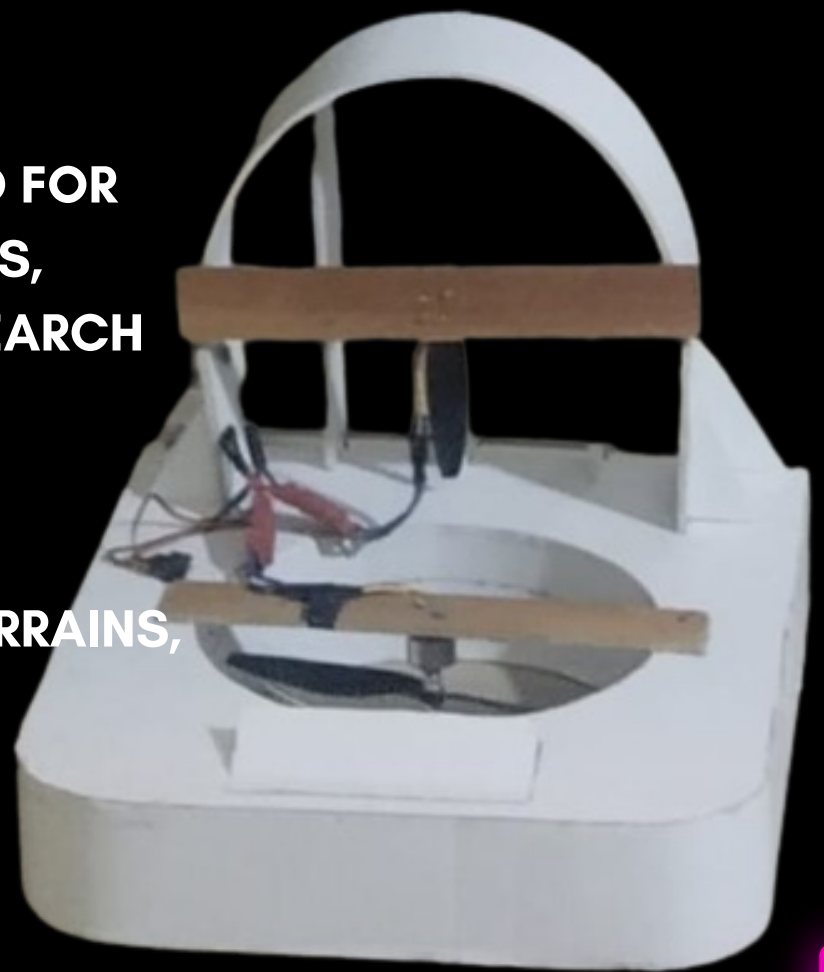
HOVERCRAFT

PRINCIPLE

THE PRINCIPLE OF A HOVERCRAFT INVOLVES LIFTING THE VEHICLE ABOVE THE SURFACE USING A CUSHION OF AIR. IT EMPLOYS A LARGE FAN TO CREATE THIS CUSHION, REDUCING FRICTION AND ENABLING MOVEMENT OVER VARIOUS TERRAINS, INCLUDING WATER, ICE, OR LAND.

USAGE

HOVERCRAFTS ARE USED FOR VERSATILE APPLICATIONS, INCLUDING MARITIME SEARCH AND RESCUE, MILITARY OPERATIONS, PUBLIC TRANSPORTATION, EXPLORATION OF ICY TERRAINS, AND DISASTER RELIEF,



MADE BY:

- SUHAS MADAN M3A
- MD.AFFAN KHAN M2B
- SATVIK JAIN M1C
- TANVEER SINGH M1D

DRONE

PRINCIPLE

DRONES OPERATE ON THE PRINCIPLE OF CONTROLLED AERIAL NAVIGATION THROUGH ROTORS OR PROPELLERS, USING REMOTE CONTROL OR ONBOARD SYSTEMS FOR STABILITY, GUIDANCE, AND MANEUVERABILITY DURING VARIOUS TASKS OR MISSIONS.

USAGE

DRONES SERVE VARIOUS ROLES, FROM AERIAL PHOTOGRAPHY AND AGRICULTURE MONITORING TO SEARCH AND RESCUE, SECURITY SURVEILLANCE, DELIVERY SERVICES, ENVIRONMENTAL STUDIES, MAPPING, INFRASTRUCTURE INSPECTION, AND DISASTER RESPONSE.



MADE BY:

- AARUSH AGARWAL M2A
- VIHAAN CHAUHAN M3A
- KAVISH GUPTA M2C
- ARJUN SHARMA S1A
- SRISHTI VASHISTH M2B
- SAYON BHATACHARYA M3B

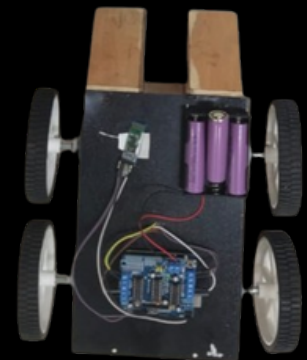
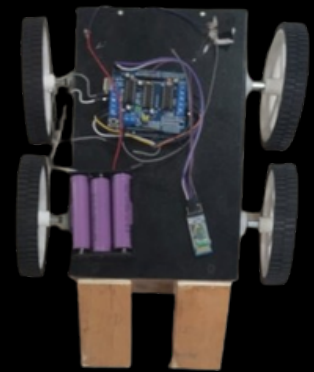
ROBO SOCCER

PRINCIPLE

THE PRINCIPLE OF ROBO-SOCCER INVOLVES DESIGNING AND PROGRAMMING ROBOTS TO AUTONOMOUSLY OR REMOTELY PLAY SOCCER, DEMONSTRATING ROBOTICS, ARTIFICIAL INTELLIGENCE, AND TEAMWORK IN A DYNAMIC AND COMPETITIVE ENVIRONMENT.

USAGE

ROBO-SOCCER PROMOTES ROBOTICS EDUCATION, RESEARCH, AND TEAM BUILDING. IT ENTERTAINS, FOSTERS STEM INTEREST, SHOWCASES INNOVATION, AND DEVELOPS SKILLS IN PROGRAMMING, ENGINEERING, AND STRATEGY.



MADE BY:

- TATWAM CHATERJEE M2B
- DARSH NARAYAN M2E
- MANAN BHATNAGAR M2E
- AKSHAT BHANDARI M3E

CASTLE RUN

PRINCIPLE

CASTLE RUN ENTAILS AUTONOMOUS VEHICLES, NAVIGATING TRACKS USING COMPUTER VISION, MACHINE LEARNING, AND SENSOR INTEGRATION, FOSTERING TECHNOLOGICAL ADVANCEMENTS IN SELF-DRIVING CAPABILITIES AND ENHANCING REAL-WORLD APPLICATIONS.

USAGE

CASTLE RUN PROMOTE TECHNOLOGICAL INNOVATION, EDUCATE STUDENTS AND RESEARCHERS, ENTERTAIN AUDIENCES, DEMONSTRATE PRACTICAL APPLICATIONS, AND FOSTER COLLABORATION IN ADVANCING AUTONOMOUS SYSTEMS AND ROBOTICS.



MADE BY

- **JISHNU GANGULY M2E**
- **SIDDHARTH JAIN M3B**
- **ANSH AWASTHI M2A**
- **VIHAAN MAJUMDAR M3A**

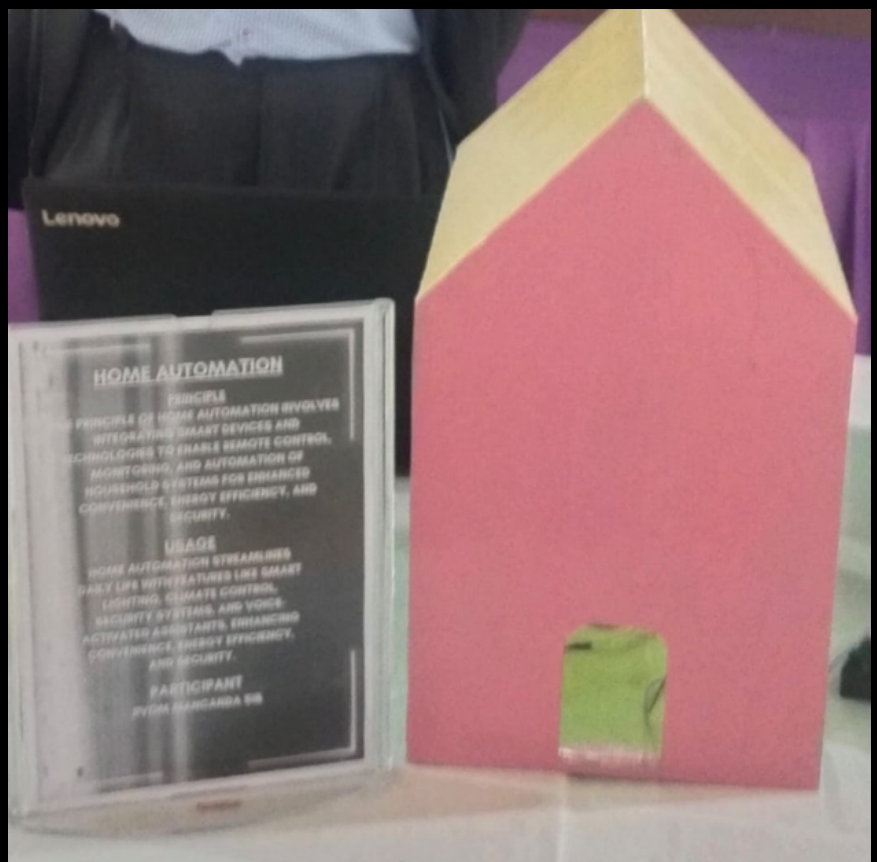
HOME AUTOMATION

PRINCIPLE

THE PRINCIPLE OF HOME AUTOMATION INVOLVES INTEGRATING SMART DEVICES AND TECHNOLOGIES TO ENABLE REMOTE CONTROL, MONITORING, AND AUTOMATION OF HOUSEHOLD SYSTEMS FOR ENHANCED CONVENIENCE, ENERGY EFFICIENCY, AND SECURITY.

USAGE

HOME AUTOMATION STREAMLINES DAILY LIFE WITH FEATURES LIKE SMART LIGHTING, CLIMATE CONTROL, SECURITY SYSTEMS, AND VOICE-ACTIVATED ASSISTANTS, ENHANCING CONVENIENCE, ENERGY EFFICIENCY, AND SECURITY.



MADE BY:

JIVOM MANCHANDA S1B

MAGIC LAMP AND PHOTO FRAME

PRINCIPLE

THE MAGIC LAMP IS A LAMP WHICH GLOWS WHEN WE SWITCH IT ON. THIS LAMP IS FULLY MADE BY CHILDREN. THE LED PHOTO FRAME ENHANCES THE PICTURE'S COLORS AND MAKE THE MEMORY COME OUT BEAUTIFULLY.

USAGE

- A LAMP IS A DEVICE THAT MAKES LIGHT AND HEAT. LAMPS USUALLY WORK WITH ELECTRICITY, USING A LIGHTBULB. THERE ARE MANY TYPES OF LAMP LIKE ELECTRIC LAMP, LIGHT LAMP.
- DIGITAL PHOTO FRAMES TYPICALLY ALLOW THE DISPLAY OF PICTURES DIRECTLY FROM A CAMERA'S MEMORY CARD, AND MAY PROVIDE INTERNAL MEMORY STORAGE.



MADE BY

- HIYA PATHAK MID
- VATSALA MID

ROBO WAR

PRINCIPLE

ROBOTS CAN MAKE QUICK DECISIONS IN FAST-PACED COMBAT SITUATIONS. REDUCING LOSS OF HUMAN LIVES DURING WARS AND NATURAL CALAMITIES.

USAGE

ROBOT WARS IS A KNOCKOUT COMPETITION TO FIND THE TOUGHEST, MOST ADVANCED FIGHTING ROBOTS. IN THIS FAST-PACED SERIES, COMPETING TEAMS OF AMATEUR ROBOT DESIGNERS BUILD ROBOTS TO FIGHT TO THE DEATH IN A BULLETPROOF ARENA.



MADE BY:

- DARSH NARAYAN M2E