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Industrial Air Quality Monitoring Drone

Surade Krutika Shamkant, Rohan Chandrakant Watekar, Shelke Sayali Mdhukar
Dr. Naveen Kumar, Bankar Kunal Gokul, Dr. Sidhant Kulkarni
Mechatronics Engineering Department
Sanjivani College of Engineering, Ahmednagar, India
krutikasurade1@gmail.com, rohanwatekar2005@gmail.com, sayalishelke818@gmail.com
kumarnaveenmkcoe@sanjivani.org.in, kunalgbankar2019@gmail.com, kulkarnisidhantmk@sanjivani.org.in

Abstract: *As industrial air pollution comes under greater scrutiny, the importance of new monitoring systems that can provide accurate high-resolution data in large and complex environments has grown. Drones having air quality sensors mounted on Unmanned Aerial Vehicles (UAVs) could be a viable option for performing atmospheric pollutants assessments in industrial zones in real-time. Such systems include emission source detection and tracking, monitoring the fate of pollutants emitted from both stationary and mobile sources, as well as incrementing spatial and temporal resolution in air-quality observations. As great as this idea sounds there are challenges to making it work.*
UAVs need to be efficient with power and have an enough flight time.They also need to carry a payload so they can accurately sense things.
We need computer programs to process data find where pollutants are coming from and figure out where they are.
This research is, about creating a drone to monitor air quality in industries.
The drone is going to have sensors that do not use a lot of power and a smart system to control its flight.
The main thing we want to do is see how well the drone works, what it can and cannot do and how we can make it better.
We are trying to help make a system that can check the air for pollution and make sure it is working correctly so it can be used by a lot of people.

Keywords: Air quality monitoring, UAV, drone-based sensing, industrial pollution, emission detection, environmental monitoring sensors real-time data acquisition

I. INTRODUCTION

The growth of industries and cities over the years has caused a problem with air pollution, which's really bad for the environment and peoples health everywhere in the world.
Industries send out things like carbon monoxide, nitrogen oxides, ammonia, benzene and tiny particles into the air, which makes the air quality bad and hurts the ecosystem.
Air pollution from industries is something we should worry about because air pollution is a problem.
The old way of checking the air on the ground with stations is very accurate because it checks the air quality right where the air pollution is happening. That is why air pollution, from industries is something we should worry about. Have limited coverage, fixed locations and are expensive to set up making them not suitable for big industrial areas.We need a efficient and smart system that can monitor air quality in real-time across large industrial regions.
Drones have become a solution for monitoring air quality because they can move around easily adapt to different situations and reach hard-to-access areas.
Drones with air quality sensors can measure levels at different heights and locations giving us a 3D picture of pollution.
However drone-based monitoring systems have some challenges.
These challenges include flight time, weight restrictions, unstable sensor readings due to drone vibrations and delays in data communication.

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The Industrial Air Quality Monitoring Drone is a system that is being made to deal with the problems of air quality. This system uses a sensor called the MQ-135 air quality sensor to find bad things in the air like CO_2, NH_3, benzene and other volatile organic compounds. The drone has a flight controller. This helps it fly steadily and accurately. It can even send its location using GPS.

The drones brain is an ESP32 microcontroller. It collects data from the sensors. Then it sends this data to a cloud-based dashboard. It uses a GSM module to do this. This means people can see the data in time. They can access it from anywhere.To make the drone fly efficiently the body of the drone is made from a strong and light material called carbon fiber. This material is good because it can handle a lot of weight without breaking and it does not vibrate much. The ESP32 microcontroller is also very good at saving energy. It can do things like average the pollutant data and filter out noise in real time.

The Industrial Air Quality Monitoring Drone can also make maps of the environment by combining the GPS data with the readings. This helps to find the places where the air's most polluted and how the pollutants are moving.

The system also has a cloud-based framework that can predict trends and make decisions based on the data. The dashboard is easy to use. It can even work with other sensors like temperature and humidity sensors.

The Industrial Air Quality Monitoring Drone is a cool way to check the air quality in industrial areas. It is a solution because it is good for the earth it works well and it uses the latest technology.

The Industrial Air Quality Monitoring Drone is a tool.

In the future we can make the Industrial Air Quality Monitoring Drone system better by adding some computer programs that can help the Industrial Air Quality Monitoring Drone fly on its own and find the things that are polluting the air. The Industrial Air Quality Monitoring Drone can also use ways of talking like 5G and LoRa to work with other Industrial Air Quality Monitoring Drones and make a big team of monitoring nodes.

So the Industrial Air Quality Monitoring Drone is a tool for checking the air quality and helping to keep the earth clean. It can help industries manage the things they put in the air and make sure they are following the rules. The Industrial Air Quality Monitoring Drone is a way to deal with the problems of air in industrial areas. The Industrial Air Quality Monitoring Drone is good, for the earth.

II. LITERATURE REVIEW

Air pollution is a problem everywhere. It is getting worse because of factories, cars and cities getting bigger. The usual way of checking air quality is not good enough because it is expensive and it cannot cover all areas. People are now using Unmanned Aerial Vehicles, also known as Unmanned Aerial Vehicles or drones with gas sensors to check the air quality. Drones are being used to check the air quality because Unmanned Aerial Vehicles can go lots of places.This is a way to check the air at different heights and places.

Drones can collect a lot of information about particles, bad smells and toxic gases in the air. This helps us find where the pollution is coming from and make models to predict pollution. Some studies used gas sensors like the MQ series to detect bad things in the air like ammonia, benzene and carbon dioxide.

People did a study where they put a sensor on a drone to find smoke coming from factories. The sensor on the drone worked well.. The drone was moving around and that caused some problems with the signal it was sending.

Another study used sensors on a drone to check for particles and carbon monoxide in the air. The sensors on the drone worked well.. The drone could not stay in the air for a long time and it had trouble sending the information it collected.

People are trying to make drones fly better and stay steady in the air. They are using controllers like the Naza-M V2 and GPS to help the drone know its location and where it is going. This helps the drone collect information about the air quality around it. The drone uses the Naza-M V2 and GPS to fly and collect good information, about the air quality.Some people are also using the internet to send the information from the drone to a computer or phone. They are using modules like the ESP8266 and GSM to send the information. This works well. Can be slow and lose some information. Newer modules like the ESP32 are better. Can send the information faster and more reliably.

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Making the drones lighter and stronger is also important. People are using materials like carbon fiber to make the drones. This makes the drones fly longer and carry sensors.

Some people are also using computers to analyze the information from the drones. They are using programs to predict where the pollution will go and how bad it will be. This is helpful. Can be complicated and require a lot of computer power.

Overall using drones to check air quality is an idea.. We need to make sure the drones are stable can send information reliably and are not too expensive. The Industrial Air Quality Monitoring Drone is a system that combines many of these ideas. It uses a sensor, a good flight controller and a reliable way to send information. It is also made to be strong and light and can fly for a time. This makes it a good tool, for checking air quality in factories and cities.

III. CONCEPT

The Industrial Air Quality Monitoring Drone system is a cool tool that helps us keep an eye on the air quality in big industrial areas. It is made up of a key parts, including a drone that can fly around and check the air, special sensors that can detect bad things in the air and a computer system that can look at all the data and figure out what it means.

The Industrial Air Quality Monitoring Drone is a drone that can fly around by itself and check the air for bad things like ammonia, benzene and carbon dioxide. It uses a sensor called the MQ-135 gas sensor to detect these things. The drone also has a GPS system that helps it fly steadily and accurately and it can send the data it collects to a special website where people can look at it.

One of the cool things about the Industrial Air Quality Monitoring Drone system is that it can adjust how high it flies and how long it stays in one place based on what it is trying to do. It can also use algorithms to make sure the data it collects is accurate. The drone itself is made of a lightweight material that helps it fly for a long time and makes sure the sensors are accurate.

The Industrial Air Quality Monitoring Drone system also has a website where people can look at the data it collects in real time. They can see what the air quality is like now and they can also look at data from the past to see how things have changed. The system is really flexible. Can be used in a lot of different ways like in chemical plants or cities.

The people who made the Industrial Air Quality Monitoring Drone system wanted to make sure it was safe and reliable so they used encryption to protect the data it collects. They also made it possible for the system to work with sensors and computers so it can be used in a lot of different ways.

The Industrial Air Quality Monitoring Drone system is an important tool for helping us keep the air clean. It can be used in a lot of places like factories and cities and it can help us figure out where the bad air is coming from and how to make it better. The system is also really good at sending alerts when it detects air so people can take action right away.

The Industrial Air Quality Monitoring Drone is an example of how technology can be used to help the environment. It is a tool that can help us keep the air clean and make the world a better place. The Industrial Air Quality Monitoring Drone system is really good at sending alerts when it detects air. This means people can take action away to stay safe.

The Industrial Air Quality Monitoring Drone is an example of how technology can help the environment. It is a tool that helps us keep the air clean. The Industrial Air Quality Monitoring Drone helps make the world a better place. The system is also really good at working with tools and computers. This means the Industrial Air Quality Monitoring Drone system can be used in different ways.

The people who made the Industrial Air Quality Monitoring Drone system are very smart. They wanted the Industrial Air Quality Monitoring Drone system to be the best it could be. They used materials and designs to make the Industrial Air Quality Monitoring Drone lightweight and accurate. They also made sure the Industrial Air Quality Monitoring Drone system was safe and reliable. The Industrial Air Quality Monitoring Drone system is a tool. It helps us keep the air clean. Makes the world a better place.

The Industrial Air Quality Monitoring Drone system can do things. It can detect air and send alerts. The Industrial Air Quality Monitoring Drone system can also be used to track changes, in the air quality over time. It helps us figure out where the bad air is coming from. The Industrial Air Quality Monitoring Drone system is really flexible. The Industrial

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Air Quality Monitoring Drone system can be used in different ways. It is an example of how technology can help the environment. The Industrial Air Quality Monitoring Drone system is very useful.

The Industrial Air Quality Monitoring Drone is a drone that is designed to help us keep the air clean. It is made up of a key parts, including the drone itself the special sensors that detect bad things in the air and the computer system that looks at all the data. The system is really cool. Can be used in a lot of different ways like in factories and cities.

The Industrial Air Quality Monitoring Drone system is a tool for helping us keep the air clean. It can detect air and send alerts and it can also be used to track changes in the air quality over time. The system is really flexible. Can be used in a lot of different ways and it is a great example of how technology can be used to help the environment.

The Industrial Air Quality Monitoring Drone is an important tool for helping us keep the air clean. It is a drone that can fly around and check the air for bad things and it can send the data it collects to a special website where people can look at it. The system is really cool. Can be used in a lot of different ways like in chemical plants and manufacturing units.

The Industrial Air Quality Monitoring Drone system is an example of how technology can be used to help the environment. It is a tool that can help us keep the air clean and make the world a better place. The system is really flexible. Can be used in a lot of different ways and it is a great example of how technology can be used to help us take care of the planet.

The Industrial Air Quality Monitoring Drone is a drone that is designed to help us keep the air clean. It is made up of a key parts, including the drone itself the special sensors that detect bad things in the air and the computer system that looks at all the data. The system is really cool. Can be used in a lot of different ways like in power stations and urban areas.

The Industrial Air Quality Monitoring Drone system is an important tool for helping us keep the air clean. It can detect air and send alerts and it can also be used to track changes in the air quality over time. The system is really flexible. Can be used in a lot of different ways and it is a great example of how technology can be used to help the environment.

The Industrial Air Quality Monitoring Drone is an example of how technology can be used to help us take care of the planet. It is a tool that can help us keep the air clean and make the world a better place. The system is really cool. Can be used in a lot of different ways like in factories and cities.

The Industrial Air Quality Monitoring Drone system is a cool tool that helps us keep an eye on the air quality in big industrial areas. It is made up of a key parts, including a drone that can fly around and check the air, special sensors that can detect bad things in the air and a computer system that can look at all the data and figure out what it means. The Industrial Air Quality Monitoring Drone system is a tool, for helping us keep the air clean.

IV. PROBLEM FORMULATION

A. Problem statement

In areas with lots of factories, power plants and urban manufacturing zones the levels of gases and tiny particles in the air change a lot. This happens because of emissions, temperature changes and variations in air density.

Traditional air quality monitoring stations on the ground do not cover a lot of areas.They also do not adapt quickly to changes. Have problems with getting data on time and communicating it efficiently.

Without drones that can work on their own and connect to the internet of things (IoT) we do not get a picture of pollution.

This leads to data and slow responses to dangerous air conditions.

So we need a drone system that can monitor air quality in real-time analyze data and send it securely over the internet.The Industrial Air Quality Monitoring Drone (IAQMD) is designed to do this.It uses an MQ-135 air quality sensor, an ESP32 controller, a Naza flight controller with GPS and a GSM communication module.

This allows it to precisely and autonomously monitor pollution and send data to a cloud-based dashboard (Blynk) in time.

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The main issues to solve are:
1. How well the sensor responds,
2. Finding the flight path
3. Minimizing communication delays and 4. Ensuring data security.
The IAQMD aims to overcome the limitations of monitoring systems.
It provides real-time sensing, data analysis and secure communication.
The drones system is essential, for pollution monitoring and response.

B. Gas Concentration Model

The MQ-135 gas sensor output is not forward and it depends on the temperature and the humidity and the air pressure.
The sensor response for a target gas can be thought of in a way as:
the sensor resistance at a certain gas concentration compared to the resistance in clean air. This can be written as:
Rs. B
Sg = A * (R0) (1)
where the sensor resistance at a gas concentration is Rs the resistance in clean air is R0 and A and B are constants that depend on the type of gas.
The amount of gas in the air is measured in parts per million. We can figure out how much gas is in the air from the sensor voltage Vs using a formula.
The formula for the gas sensor is:
Cg = f(Vs, T, H) = K1 * Vs to the power of K2 * e to the power of K3 * (T minus T0) * e to the power of K4 * (H minus H0).
Here the temperature is T and the humidity is H. The sensor has some numbers these are K1, K2, K3 and K4.
The MQ-135 gas sensor needs to be calibrated. This calibration helps the MQ-135 gas sensor give us the readings of pollutant levels, in the air. The calibration also makes the whole system work reliably and give us readings of the gas levels.The calibration of the MQ-135 gas sensor is important, for the accuracy of the concentration and the reliability of the system.

C. UAV Navigation and Data Transmission Model

The drones flight stability and navigation are controlled by the flight controller.It manages pitch, roll, yaw and altitude using GPS coordinates.The drones path is optimized for maximum area coverage and minimal energy consumption.
The drones trajectory is optimized to ensure area coverage and minimal energy consumption.
The UAVs movement model is given as:
where $P(t)$'s position, $v(t)$ is velocity and $a(t)$ is acceleration.
These are controlled by PID tuning parameters in the Naza controller.
Data from the controller is sent to the internet dashboard through a communication module.
The delay in communication is the sum of processing delay transmission delay and network delay.
This delay is represented as:
where $Lproc$ is processing delay, $Ltrans$'s GSM transmission delay and $Lnet$ is network delay.
Reducing this latency Lc, ensures that data updates are in real-time.
Minimizing Lc ensures, near real-time data updates.

D. IoT Security and Reliability Metrics

Secure data transmission is critical for industrial internet systems. The reliability index for communication is defined as the product of packet loss probability transmission delay probability and successful authentication rate. High reliability index indicates stable data transmission, across communication layers.

$$R_s = \alpha(1 - P_{loss}) + \beta(1 - P_{delay}) + \gamma P_{auth}$$

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where $Ploss$is packet loss probability, $Pdelay$is transmission delay probability, and $Pauth$represents successful authentication rate. High Rsindicates secure and stable data transmission across GSM and cloud layers.

V. METHODOLOGY

The Industrial Air Quality Monitoring Drone system is designed to tackle the challenges of monitoring air quality in areas. This system uses an approach to identify the problems set goals and create a strong monitoring system based on drones.

Industrial areas have a lot of problems with air pollution and the air quality can change a lot. Traditional ways of monitoring air quality are not good enough because they can only measure the air quality in one place. It takes a long time to get the data.

The main goal is to create a drone system that can monitor the air quality in real-time send the data securely and predict the air quality. The system should also be able to fly for some time and use energy in a way.

The first step is to figure out what the problem is and what we need to do.

We need to know what kinds of pollutants are there where they are coming from and how we can fly to measure them.

We also have to think about the drones limits like how weight it can carry how long it can fly and what kind of sensors it can use.

We use a sensor called MQ-135 to measure pollutants.

We connect it to a microcontroller called ESP32.

We use a flight controller called Naza to make the drone fly steadily and accurately.

The drone sends data to a dashboard away so we can see the air quality and make decisions.The system works on its own.

It uses codes to guess the air quality and find any strange changes.

The system also sends messages and warnings so we can act fast.We try out the system to make sure it works well.

We check how it performs.

We look at the sensors accuracy the drones flight stability and how well it sends data.The Industrial Air Quality Monitoring Drone system is an intelligent platform for monitoring air quality in industrial areas. It can be. Improved in the future and it can be used in many different applications.

VI. BENEFITS OF THE PROPOSED SYSTEM

The benefits of this system are many. It provides real-time monitoring, autonomous control and secure data transmission. It can detect pollutants. Predict the air quality and it can send alerts and warnings. The system is also scalable. Can be used in many different industries.

We use a special gas sensor to measure the pollutants. We connect the Industrial Air Quality Monitoring Drone to a microcontroller. The Industrial Air Quality Monitoring Drone sends the data to a dashboard in time, where we can see the air quality and make decisions about the Industrial Air Quality Monitoring Drone.

The Industrial Air Quality Monitoring Drone system is designed to be efficient and reliable. The Industrial Air Quality Monitoring Drone can fly for a time without needing to be recharged. We use carbon fiber to make the Industrial Air Quality Monitoring Drone light and strong.

industrial areas with the Industrial Air Quality Monitoring Drone. It promotes awareness and operational efficiency and data driven decision making with the Industrial Air Quality Monitoring Drone.

We test the system. Evaluate its performance. The results show that the system is effective and reliable and it can monitor the air quality in time. The sensor accuracy is high.

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VII. RESULT AND DISCUSSION

Table 1 Result and performance

Sr. No.	Test Component	Test Result
1	MQ-135 Sensor Voltage (V)	0.2–4.8 V (proportional to gas concentration)
2	CO_2 Concentration (ppm)	400–1500 ppm (dynamic industrial emission profile)
3	NH_3 Concentration (ppm)	5–50 ppm (detected at emission hotspots)
4	UAV Flight Duration (min)	18–22 min (with full sensor payload)
5	GPS Positional Accuracy (m)	±1.5 m (stable during waypoint navigation)
6	GSM Data Transmission Latency (s)	1–3 s (real-time cloud updates)
7	Blynk Dashboard Update Frequency	1–2 s (near real-time visualization)

The new air quality system is really good at keeping an eye on pollutants all the time. The MQ-135 sensor is very useful because it sends out a voltage signal that goes up or down depending on how CO_2, NH_3 and other gases it finds. This means the MQ-135 sensor is good at finding gases when factories and plants send out bad air.

The system uses a drone called a UAV and GPS to figure out where the bad air is the worst. This helps us find the places where the air's the most polluted, which are called hotspots of emissions.

The UAV drone can fly for 18 to 22 minutes without stopping and all its tools, like the sensors and communication equipment keep working the time.Its design and power management are efficient.

It can pinpoint locations with an accuracy of ±1.5 meters.

The UAV sends sensor readings to a Blynk dashboard in time through GSM communication. This happens with little delay usually between 1 to 3 seconds.

The dashboard lets operators keep track of levels notice unusual emission patterns and find areas where pollutant levels are too high.The system uses AI to predict where pollutants are likely to be.

The UAV changes its flight path to focus on areas with pollution levels.

This ensures it covers all areas comprehensively.

The systems edge computing, handled by the ESP32 reduces the time it takes to process data

This keeps the system responsive for making decisions and following regulations.

The test results show that the IAQMD platform works well for air quality monitoring.

It can securely transmit data.

It has flight control.

It can accurately detect pollutants.

The UAV system is an improvement, over static monitoring stations.

- It provides a view of the area.
- It gives data in near time.

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VIII. COMPONENT DESCRIPTION

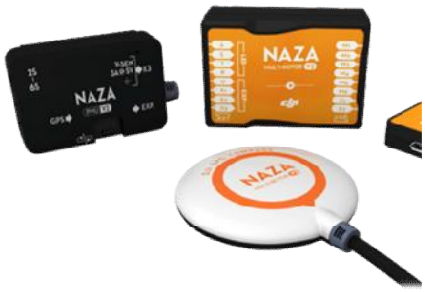

Fig.1. Naza Flight Controller

The Naza flight controller acts as the primary flight management and stabilization unit of the drone platform. It is responsible for maintaining stable aerial motion, controlling drone orientation, and ensuring accurate navigation during environmental monitoring missions. The Naza controller functions as the central flight processing system by continuously analyzing motion data, sensor inputs, and positioning information to maintain balanced and controlled flight.

One of the key specifications of the Naza controller is its GPS compatibility, which allows accurate geographical positioning, waypoint navigation, altitude control, return-to-home functionality, and autonomous flight operations. The integration of GPS significantly improves flight precision and enables location-based environmental monitoring.

Another important feature of the Naza controller is its PID stabilization mechanism. Using proportional-integral-derivative control algorithms, the controller continuously adjusts motor outputs to maintain stable flight conditions by controlling roll, pitch, yaw, and altitude. This ensures that the drone remains stable even under external disturbances such as wind turbulence, payload variations, and sudden directional changes. In the proposed system, the Naza controller ensures accurate flight performance, precise navigation, and reliable sensor positioning during pollutant data acquisition.

Fig.2. MQ-135 sensor

Function:

This thing can tell us how clean the air is by feeling for stuff like ammonia, carbon dioxide, alcohol, smoke and benzene in the air.

Specification (points):

Operating voltage is 5 volts.

It gives us two kinds of signals: one is like a simple meter reading and the other is like a computer code

It can detect air from a little bit to a lot. Around 10 to 1000 parts per million. It is different, for each kind of bad air

It uses a material called tin dioxide to sense the bad air

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Use: We can use this to check how polluted the air is..

Fig.3. LiPo 3S Battery

Function:
This battery stores energy, from the panel.
Specifications:
This battery is a lithium polymer battery.
The voltage of this battery is 11.1 volts or 7.4 volts.
The capacity of this battery is not given in hours it is usually
given in hours.

Fig.4. ESP-32 Microcontroller

Function:
This little computer is really cheap. It has Wi-Fi and Bluetooth already built in.It is used for Internet of Things things and for embedded systems.
Specification:
The voltage it needs to work is 3.3 volts
It has a brain that can do two things at the time and it can go up to 240 megahertz
It can connect to the internet with Wi-Fi and Bluetooth
Use:
You can use this little computer for Internet of Things projects like making your home smart or making sensors to measure things.

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Fig.5. Electronic Speed Controller

The Electronic Speed Controllers (ESCs) are essential components used to regulate the speed and operation of the BLDC motors. Each motor is connected to an individual ESC, resulting in a total of four ESCs in the proposed quadcopter system. The ESC acts as an interface between the Naza flight controller and the motor by controlling the voltage and current supplied to the motor.

The ESC operates using Pulse Width Modulation (PWM) control, where PWM signals generated by the flight controller determine the rotational speed of each motor. By varying the pulse width, the ESC precisely adjusts motor speed, acceleration, deceleration, and directional movement. This enables smooth flight transitions, accurate maneuvering, and stable aerial positioning during monitoring missions. The ESCs play a critical role in maintaining drone balance, dynamic stability, and precise navigation.

Fig.6. BLDC Motor for Cutter

The BLDC Motor for Cutter is used to drive the cutting blade because the BLDC Motor for Cutter has a speed and is very efficient.

The specifications of the BLDC Motor for Cutter are:

The BLDC Motor for Cutter is speed

The BLDC Motor for Cutter runs at 1000 to 12000 RPM

The BLDC Motor for Cutter is lightweight

The main function of the BLDC Motor for Cutter is that it provides high speed rotation. The BLDC Motor, for Cutter does this with low noise operation.

noise operation.

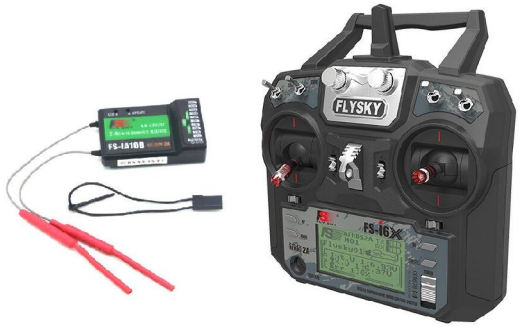

Fig. 7. Transmitter and Receiver

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The transmitter and receiver system provides wireless communication between the drone and the operator, enabling remote control and manual flight supervision. The transmitter is operated by the user on the ground, while the receiver is mounted on the drone and receives control signals during flight.

The transmitter sends control commands related to throttle, pitch, roll, yaw, and flight mode selection. The receiver interprets these commands and forwards them to the Naza flight controller for execution. This communication system ensures real-time manual control, emergency intervention, flight parameter adjustment, and mission supervision during environmental monitoring operations. The transmitter-receiver pair enhances operational safety, flexibility, and flight control accuracy.

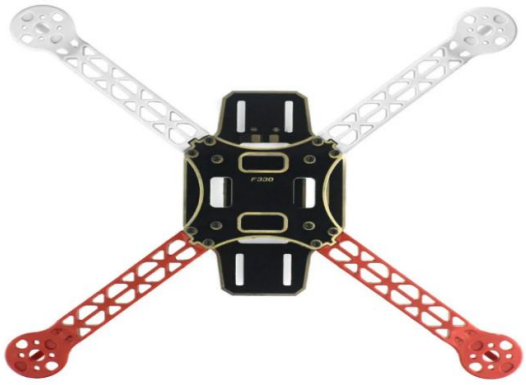

Fig. 8. Drone Chassis

The drone chassis serves as the structural framework of the UAV and supports all flight and sensing components. It provides mechanical stability, balanced weight distribution, vibration resistance, and protection for onboard electronics during flight operations.

The selected chassis is designed with a lightweight structure, which minimizes overall system weight while maintaining sufficient mechanical strength to carry the sensing payload, battery, motors, and control electronics. Lightweight construction directly improves flight efficiency, reduces power consumption, and increases operational endurance. The chassis also ensures proper mounting alignment of all components, reducing vibration-induced sensor errors and enhancing measurement accuracy during aerial environmental monitoring.

The structural design of the chassis enables easy component integration, maintenance, and future system expansion, making it highly suitable for industrial air quality monitoring applications.

IX. CONCLUSION

This paper is about a system called Industrial Air Quality Monitoring Drone or IAQMD for short. The IAQMD system is really good at finding pollutants in the air in time. It can also show where the pollutants are coming from and send the information securely.

The IAQMD system uses a sensor to measure the pollutants in the air. It also has a controller that helps it fly around and find the pollutants. The system can even show the information on a website so people can see what is going on.

When we tested the IAQMD system it worked well. It could find the pollutants. Show where they were coming from. The system is also really good at flying and finding the pollutants without using too much energy. The IAQMD system can even help people predict when there might be a problem with the air quality.

The best thing about the IAQMD system is that it is really flexible. It can be used in lots of places and can even be connected to other systems to make it work better. The system is also really safe and secure so people do not have to worry about their information being stolen.

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The IAQMD system is also really good at giving people the information they need to make decisions. It can show them where the pollutants are coming from and how bad they are. The system can even help people figure out what to do to make the air cleaner.

In the end the IAQMD system is a great tool for monitoring the air quality in industrial areas. It is reliable and safe. It can help people make sure the air is clean. The system is also really good at helping people follow the rules and regulations. It can even help them predict when there might be a problem. The IAQMD system is a solution, for anyone who needs to monitor the air quality.

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