

---

DECA

---

# SOAR

Surveillance, Observation, and Aerial Reconnaissance

---

## INDEPENDENT BUSINESS PLAN

Aiden Erard & Daniel Neuner  
St. Louis University High School  
District 8

4970 Oakland Avenue

St. Louis, MO 63110

March 23, 2025

# Table of Contents

I. Executive Summary .....	1
II. Problems .....	2
III. Customer Segments .....	3
IV. Unique Value Proposition .....	4
V. Solutions .....	5
VI. Channels .....	6
VII. Revenue Streams .....	7
VIII. Cost Structure .....	8
IX. Detailed Financials .....	10
X. Key Metrics .....	12
XI. Competitive Advantage .....	14
XII. Conclusion .....	15
XIII. Bibliography .....	17
XIV. Appendix .....	18

# I. Executive Summary

## Company Background

SOAR is an innovative drone technology that will enhance the protection and efficiency of on-duty police officers by offering them security, observation, and aerial reconnaissance. Our technology utilizes AI technology to autonomously survey the scene before an officer even has to step out of their vehicle. In addition, the implementation of SOAR into the roofs of police cars will allow for even greater safety, both for citizens and officers alike.

## Problems



Officers are **unaware** of their environment and risk harm from possible suspects.



**Slower response time:** officers are forced to respond to more calls. Fewer officers are free.



Dash/body cam footage is **not sufficient** enough to convey the context of an entire scene.

## Solutions

1

Officers feel a sense of **security** before entering a potentially dangerous environment.

2

The autonomous feature of SOAR makes it **time efficient** and easy for a **single officer** to use.

3

**Captures** incredibly detailed information from a variety of angles that can be used later.

## Customer Segments

**Primary:** Innovative, tech savvy police departments with goals of increased officer safety. Departments in city and urban areas of the United States. Top 50% of highest earning zip codes.

**Secondary:** United States military operations branches along with on duty special forces (Delta force, marine corps etc.).



### Proposed Metrics

SOAR will give up 10% equity to an investor while requiring a \$1,500,000 investment to pay for manufacturing costs, testing, and development to start the business. Our projected first year revenue is \$2,250,000 with expected gross profit margins of 40%.

### Conclusion and ROI

The investor can expect a total payment of \$1,950,000. Payments will be made monthly beginning at month 6 and concluding at month 60. The interest rate will be 8% with monthly payments of \$40,000. The bank can expect a 30% return on investment.

## II. Problems

**SOAR resolves the following problems encountered by on-duty officers:**

**Problem 1:** Officers are unaware of their environment and risk possible harm from suspects.

A common misconception about the police force is the safety of on-duty officers. Many people believe that a police belt is sufficient security and protection. However, according to the FBI data, in the year 2023, 79,091 officers were assaulted, the highest officer rate in the last 10 years. Of this 79,091 assaults, 466 officers were assaulted and injured by firearms, also the highest rate in the past 10 years. 57 of these officers were pronounced dead. This immense decrease in officer safety over the past ten years is due to an increase in crime across the country. A study done by the Council on Criminal Justice states that the gun assault rate in 2023 was 15% higher than in 2019. Based on past data, these statistics are projected to continue rising as the divide between police and communities increases.

**Problem 2:** Officers may have to respond to more calls, slowing down response times.

Frequently, officers' calls overlap, producing a backup in responses to crime scenes.

Often times, officers are given the responsibility of what response is worthy of greater or lesser attention. According to the Office of Justice Programs, a response time of less than 5 minutes results in a 60% arrest rate, but a response time of greater than 5 minutes results in only 20%. They also say that between 70 and 80 percent of police calls are not even criminally related. This dilemma of ideal response time and importance leads to many scenes lacking officers, making it difficult for them to leave the scene successful.

This data strongly suggests that police calls are inefficient and difficult to categorize.

Additionally, single-person patrols are perceived as more dangerous by officers than two-person patrols. Despite less than 5% of responses involving violence, a lack of technology creates higher levels of stress and discomfort among single-person patrols.

**Problem 3:** On-scene (dash/body cam) footage is not sufficient for future usage.

With modern police technology, such as dashcam and bodycam, footage is limited. There is a restricted perspective, poor video quality, high potential for misinterpretation or bias, and need for additional evidence to understand the context

of the scene. Despite the advancement in filming technology, aerial technology, and the combination of both, police departments are still stuck with low-quality, minuscule video cameras. A study done by the National Institute of Justice suggests that despite high levels of body-worn cameras across large police departments, there is little evidence signifying consistent effects in efficiency between officers who did wear body cameras versus those that did not. This argument against the effectiveness of body cameras suggests lacking and out-of-date technology in the police force.

---

## III. Customer Segments

### Primary Customers

SOAR will focus on distributing reliable and world-class surveillance technology to the target market of police stations in the United States that need law enforcement aid. The intermediaries between SOAR and those police departments are **local and state governments**. These governing bodies will be the main customers of SOAR and will use their funding from tax dollars to purchase SOAR drones on the behalf of the police stations.

SOAR will begin by supplying to the local market in St. Louis County and other Midwestern towns. Their first customers will be the St. Louis County and City of St. Louis governments. There are 58 local police departments within the 13 mile radius of St. Louis County that protect approximately 1,004,125 people, according to the U.S. Census Bureau. SOAR will have the ability to later expand to supply the 3,144 counties and 18,000 county departments in the U.S., including the 576 police stations in the state of Missouri.

### Secondary Customers

In the long term, SOAR looks to supply their products to military customers. Their advanced technology will help the U.S. armed forces utilize Artificial Intelligence through autonomous drones that can be used for reconnaissance

missions. SOAR will look to distribute more powerful and advanced drone technology to military customers in roughly 10 years, after successfully providing profitable units to domestic police departments.

---

## IV. Unique Value Proposition

**SOAR provides the following unique values to increase police officer safety:**

### **Deployment**

Unlike other surveillance drones, SOAR will be deployed from the roof of a squad car while utilizing Artificial Intelligence, allowing the drone to survey the scene autonomously. The unit will be stored via a charging dock that is easily attached to the top of a squad car. This integration will allow for access to drones on scene at all times, in turn eliminating the need for costly surveillance helicopters. Finally, SOAR's ability to efficiently survey a wider area requires less manpower, freeing up officers for other calls.

### **Target Recognition**

Additionally, SOAR will take advantage of machine learning, allowing it to learn from past dash-cam/body-cam footage. From this data, SOAR will recognize patterns, ultimately providing it the ability to distinguish criminal activity without being explicitly programmed. This machine learning will allow the software to identify a target's location and threat level before relaying the information to an officer's radio and laptop. Officers oftentimes have to enter uncleared areas despite being unaware of their surroundings. SOAR's ability to survey barricaded suspects will increase the safety and awareness of armed subjects.

### **Drone Design**

All SOAR drones will be equipped with traditional and infrared cameras, so officers can identify heat signatures as well as record clear footage for later court proceedings. SOAR will use a lightweight 3D printed design, allowing for more rapid, low-cost production. Additionally, an insulated motor and a larger propellor profile will reduce high-frequency sounds. In all, SOAR is a powerful combination of AI and aviation technology that will be directly integrated into police systems, allowing for unparalleled aerial reconnaissance.

# V. Solutions

**SOAR provides the following solutions to increase officer safety:**

**Solution 1:** Officers feel a sense of security before entering a potentially dangerous environment.

SOAR's autonomous abilities will allow for officers to see and hear their surroundings safely from their squad car. Both footage and sound will be sent directly to the laptop system inside the squad car where the in-field officer will be able to remotely track potential criminals. Staying in the police car allows for enhanced situational awareness, protection from the outside environment, and time to assess the situation before engaging. In all, SOAR will allow officers to prevent unnecessary escalation, saving lives on both sides of the law.

**Solution 2:** The autonomous feature of SOAR makes it time efficient and easy for a single officer to use.

According to SaferWatch, officer response times can range from 5 to 20 minutes in big cities. SOAR's autonomous drones can be released from police cars as soon as the officer leaves the station in his vehicle. All the officer needs to do is push a button on his electronic key pad, and the drone will route itself to the destination set by the vehicle's routing system. The drones will soon accelerate to 60 miles per hour, meaning a crime scene 3 miles away will be reached in just over 3 minutes.

**Solution 3:** Captures incredibly detailed information from a variety of angles that can be used later.

SOAR's dual camera will allow police officers and juries to attain clear footage for efficient conviction in later court proceedings. Upon takeoff, SOAR will retrieve multiple angles of the crime scene, flying around the entire region. With insufficient footage being produced in the modern day through use of body cam and dash cam, criminal court cases are often difficult to conduct efficiently.

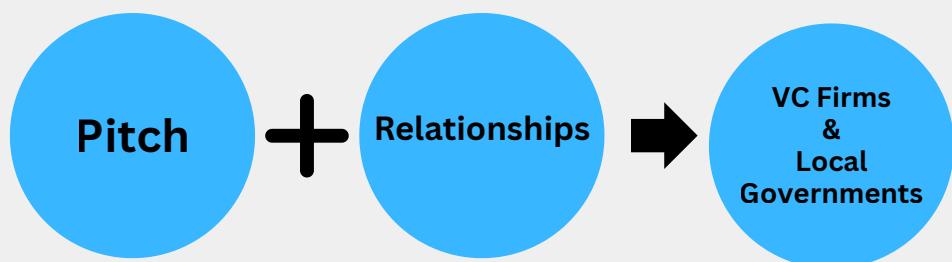
# VI. Channels

## Key Message

SOAR's key message is using today's technology to ensure the safety of the public. Because Artificial Intelligence is taking over nearly every modern-day industry, and self-driving cars are rumored to be mere years from wide public availability, SOAR seeks to capture these waves of technology and encapsulate them in a single product. In addition, the product proves that SOAR is not using technological advancements simply to benefit themselves but to improve the safety of a country burdened with violent crimes and gun violence.

## Sales Procedure & Strategy

SOAR's two main sales procedures relate to **local governments**, who will purchase SOAR drones to implement in police departments, as well as **venture capital firms** that will give SOAR the necessary funds to succeed. Since SOAR will not be selling drones to the general public and thus will not need much online advertising, SOAR's main form of marketing will be through their **in-person sales pitches**. SOAR plans to create an effective and concise sales strategy that they will use with investors and local governing bodies overseeing law enforcement. SOAR will create a miniature replica of each drone model they produce to use in presentations to customers. By being able to both see and hear about the drone, rather than simply watching a slides presentation, potential SOAR customers will be easily convinced to purchase the products. For investors, SOAR also hopes to use physical models as part of their persuasion method. Not only will SOAR sales associates and executives talk to firms about the drone and AI markets, the company's long-term plans, and the financial benefits of investing, but they will show them the power and capabilities of the SOAR drones in order to sway them to support the business and its products.



## VII. Revenue Streams

The revenue streams surrounding SOAR will be structured around three drones that will roll out at different years in the advancement of SOAR's technology. The initial model, priced at \$15,000, will launch upon SOAR's opening. This will target local law enforcement agencies seeking to increase their officer safety. By year three, SOAR will release a more advanced and efficient model priced at \$20,000. It will include upgraded features such as enhanced surveillance capabilities, extended battery life, and a quick response time. This model will be targeted at a broader market of law enforcement across the United States. Finally, the premium model will be released five years after the launching of SOAR. This model will be priced at \$25,000 and will feature cutting-edge technology focused on continuing to improve SOAR's innovative technology. This model will target an even greater number of law enforcement agencies, preparing to release their militaristic drone model by year ten. Releasing different models over a period of 10 years will allow for more investment in research and development while more income will be generated over time from a growing demand of customers, ensuring company stability.

### First Year Goals

Prior to Opening	Within First 3 Months	Within First Year
<b>Develop and produce a finalized drone design</b>	<b>Sell drones to 100 Missouri police stations</b>	<b>Secure a \$500,000 federal grant and \$2 million from private investors</b>
<b>Establish a standardized assembly line and supply chain</b>	<b>Submit application for federal government funding grant</b>	<b>Produce and sell 600 drones for police use</b>
<b>Finalize team of employees and fully train for procedures</b>	<b>Hire 4 additional engineers for more efficient production</b>	<b>Sell drones to police stations in 100 U.S. counties</b>
<b>Form distribution plan for transportation of finished product</b>	<b>Purchase automotive vehicle and deliver drones to first customers</b>	<b>Begin production on improved second drone model</b>

## **Overview of 5-Year Pricing Plan & Sales Revenue:**

Years 1-3: SOAR will sell 600 total drones to police departments in the state of Missouri. Of these Missouri police departments, SOAR's target market will be higher status zip codes who are willing and able to take action. The \$15,000 unit will yield \$5,250,000 in sales revenue while the additional 20,000 unit will yield \$5,000,000.

Years 4-5: SOAR will sell 1,080 total drones to police stations across the United States. In this two-year period, the drones will be priced at \$20,000 per unit in year 4 and \$25,000 per unit in year 5, resulting in \$24,600,000 total sales revenue for these two years of operations.

Year 6-10: SOAR will sell 2,000 drones to a larger number of police departments across the United States. Throughout year's 6-10, SOAR hopes to provide drone models to a majority of zip codes across the country, so every community will experience the improvement in technology. Priced at \$25,000 per unit, SOAR will generate \$50,000,000 in total revenue over these five years.

---

## **VIII. Cost Structure**

### **Market Research**

According to Grand View Research, the current U.S. drone industry is worth over \$22 billion. SOAR will be entering a market that has experienced continuous exponential growth over the last 5-10 years. Since SOAR revolutionizes the drone market with autonomous, self-driving features and Artificial Intelligence, two other markets valued at \$9 million and \$184 billion, respectively. These industries are expected to explode later this decade, so SOAR can be confident that they are entering a market with the potential for great profits that will only accumulate as time goes on.

### **Startup Costs Overview**

The following table outlines SOAR's estimated startup costs. It includes legal fees, research and development costs, office/workspace costs, and administrative expenses. The table below provides an overview of the resources necessary to establish SOAR and begin production.

Category	Amount (\$)
<b>Legal Fees</b>	
Business Registration	\$10,000
Liability Insurance	\$20,000
Licenses and Permits	\$15,000
<b>Research and Development</b>	
Employee Salaries	\$500,000
Database and Software Tools	\$50,000
Administrative Costs	\$100,000
<b>Office and Workspace Costs</b>	
Office Space Lease	\$50,000
Initial Equipment Costs	\$500,000
<b>Total Startup Costs</b>	<b>\$1,245,000</b>

### Human Resource Cost

Following their debut, SOAR plans to hire a team comprising of 6 employees with beginning total annual salaries of \$500,000. The positions in post operations will be CEO, CFO, Assistant Head Engineer, CIO, and Staff Engineer. The table below provides a list of the 4 highest ranking employees along with a breakdown of positions and their respective yearly salaries.

### SOAR Executive Committee



**Aiden Erard**  
CEO, Head Engineer



**Daniel Neuner**  
CFO,  
Director of Operations



**Carson Heller**  
Assistant Head Engineer



**Robert Hill**  
CIO

Position	Number	Yearly Salary (\$)
CEO	1	\$120,000
CFO	1	\$100,000
Asst. Head Engineer	1	\$90,000
CIO	1	\$80,000
Staff Engineer	2	\$55,000
<b>Monthly HR Cost</b>		<b>\$41,666.67</b>
<b>Yearly HR Cost</b>		<b>\$500,000</b>

## Monthly Operating Cost

SOAR's monthly operating costs have been calculated based upon their yearly salaries, equipment costs, office lease, insurance, and database expenses. The table below provides such costs along with SOAR's total monthly cost, adding up to \$1,052,004 per year.

Category	Amount (\$)
Employee Salaries	\$41,667
Equipment Costs	\$33,333
Office Lease	\$4,167
Insurance Costs	\$6,000
Database Costs	\$2,500
<b>Total Monthly Cost</b>	<b>\$87,667</b>

## IX. Detailed Financials

### Balance Sheet (End of Year 1)

SOAR's balance sheet at the end of their first year (right) shows a strong cash position at \$2.26M. This includes equipment valued at \$700,000, leading to their total assets of \$2.26M. Loans prove to be SOAR's main liability valued at \$1.5M. Finally, their shareholder equity,

Category	Amount (\$M)
<b>Assets</b>	
Cash	2.26
Equipment Value	0.7
Total Assets	2.96
<b>Liabilities</b>	
Loans Outstanding	1.5
Total Liabilities	1.5
<b>Equity</b>	
Shareholder Equity	1.46
<b>Total Liabilities + Equity</b>	<b>2.96</b>

\$1.46M, showcases that the company holds a strong public perception through their successful balance of assets and liability.

### Revenue Sales Projection

Over five years, SOAR is projected to generate \$34.85M in revenue. This very steady and exponential rate of revenue will consist of their increasing unit sales from 150 in year 1 to 600 in year 5. In all, a strategic price increase from different drone models along with expected market expansion will provide SOAR with \$7.5M in gross profit by year five. Below is a detailed five-year revenue sales projection.

Year	Revenue (\$M)	Price per Unit (\$)	Units Sold	Gross Profit (\$M)	Operating Expenses (\$M)	EBITDA (\$M)
1	2.25	15,000	150	1.13	1.19	-0.06
2	3	15,000	200	1.5	1.36	0.14
3	5	20,000	250	2.5	1.66	0.84
4	9.6	20,000	480	4.8	2.16	2.64
5	15	25,000	600	7.5	2.76	4.74

### Cash Flow Statement

SOAR's cash flow projection statement showcases successful budgeting and allocation of resources. This allows the company to maintain a positive cash flow each year. Beginning with \$2M in equity and ending with \$22.22M by the end of year five highlights SOAR's plan to control their cash flow, manage capital expenditures, and scale operations. Below is a five-year cash flow statement.

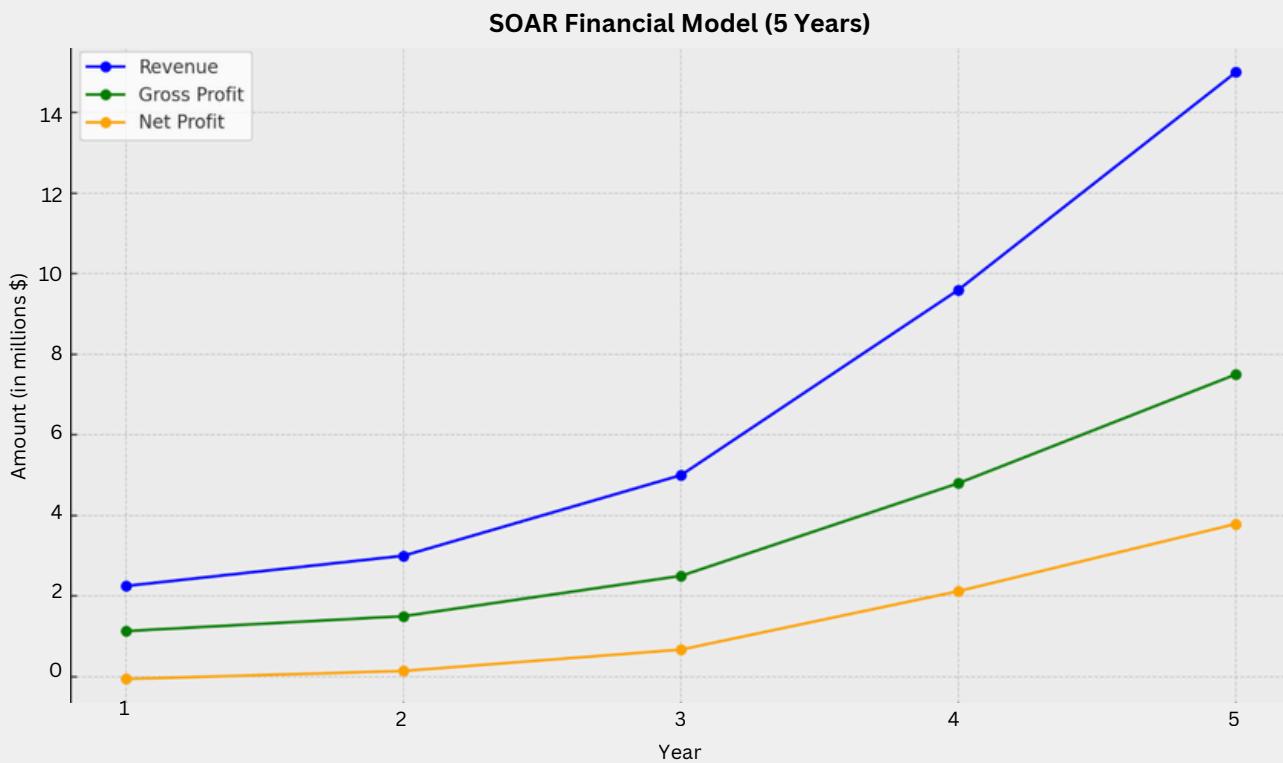
Year	Beginning Cash (\$M)	Revenue (\$M)	Expenses (\$M)	Loan Repayment (\$M)	Capital Expenditures (\$M)	Ending Cash (\$M)
1	2	2.25	1.69	0.24	0.3	2.02
2	2	3	2	0.48	0.3	2.32
3	2.8	5	1.96	0.48	0.3	4.66
4	5.14	9.6	2.36	0.48	0.2	11.3
5	11.78	15	3.16	0.48	0.2	21.74

### Income Statement

SOAR's income statement shows a turnaround from a loss of \$60,000 in year 1 to a net profit of \$3.79M in year 5. This is also highlighted through an increasing EBITDA which improves drastically throughout the five year period. This showcases how SOAR will utilize productive cost management and profitable scaling. Below is a five-year income statement projection.

Year	Revenue (\$M)	Gross Profit (\$M)	Operating Expenses (\$M)	EBITDA (\$M)	Taxes (\$M)	Net Profit (\$M)
1	2.25	1.13	1.19	-0.06	0	-0.06
2	3	1.5	1.36	0.14	0	0.14
3	5	2.5	1.66	0.84	0.17	0.67
4	9.6	4.8	2.16	2.64	0.52	2.12
5	15	7.5	2.76	4.74	0.95	3.79

The graph below represents SOAR's financial performance over a five-year period. It highlights key metrics: revenue (blue), gross profit (green), and net profit (yellow), showcasing projected trends of company growth beyond the highlighted five-year period. According to the graph and its trends, by year ten, SOAR is estimated to reach \$59.1M in revenue, \$29.55M in gross profit, and \$14.93M in net profit.



## X. Key Metrics

### Overview

SOAR will measure various factors to determine how effective its service is to the provided communities and police departments. Additionally, these metrics will allow SOAR to improve its service, sales strategy, and overall customer satisfaction. The combination of the following key metrics will help SOAR measure its success while creating a structured path to increase the company's growth.

### Financial Metrics

It is important for SOAR to track its financial metrics because they provide a clear picture of the business's profits and efficiency over time. In more detail, they highlight where money is being made and where it is being lost. Specifically, revenue

shows how well SOAR is reacting to the market, gross profits showcases SOAR's production efficiency, EBITDA reveals profits taking operating expenses into account, return on investment highlights the success of investments, and debt-to-equity ratio helps the company manage any financial risks.

### **Operational Metrics**

Operational metrics allow SOAR to productively manage any internal factors within the company. This will ensure the most efficient and successful production. Measuring production efficiency, inventory, and turnaround time will present paths to lower production costs, getting rid of problems and inefficiencies from the beginning of the process.

### **Product Metrics**

Product metrics are key to track within SOAR because they focus on the quality of the products being produced along with customer satisfaction. Metrics such as success rate and number of defective units will drive the SOAR team to pay attention to detail, driving company growth.

### **Market and Growth Metrics**

It is important to track the market trends within the drone industry because they showcase SOAR's presence, growth potential, and ability to scale. Tracking metrics such as market shares and industry growth will allow SOAR to build a predictable plan, preventing fallout and miscommunication with partnerships. In all, this will push SOAR to the top of the industry, creating an even more competitive market.

### **Human Resource Metrics**

Employees at SOAR will be very critical in the production and growth of the company. Tracking productivity, employee satisfaction, retention rate, and absence rate will reveal how employees see their company and whether they like going to work. This is an extremely important metric for expanding SOAR because it will ensure teams stay motivated, productive, and aligned with the overall goals of the company.

# XI. Competitive Advantage

## Product Differentiation

SOAR's ability to be deployed from the roof of the squad car makes it the first autonomous drone in the market to be completely autonomous. Additionally, the implementation of both a traditional and infrared camera will allow SOAR to retrieve unparalleled footage to be used in later court proceedings. Lastly, the unique drone design differentiates SOAR from other surveillance drones in the market today. Its lightweight, silent, and durable body makes it efficiently sound for any mission. Overall, built-in charging dock, dual camera, and innovative design will push SOAR beyond its competition, leading to success in its industry.

## Key Competitors

### Axon Air

Axon Air is a police defense drone manufacturer based out of Seattle. They are one of SOAR's largest competitors because of their long-held standard of protection. Additionally, their ability to implement drone surveillance with little officer flight training attracts police stations from around the country to adapt their technology. Axon Air provides their drone technology to 30 U.S. cities and in 2024, they generated \$1.94 billion in revenue with \$174 million annual income. However, a weakness of Axon Air is their inability to implement autonomy to their technologies. The utilization of Artificial Intelligence would attract even more attention to their company.

### DJI

DJI is a well-established drone manufacturer known globally for their diverse array of products. They make mainly commercial-style drones. However, their Matrice 300 RTK drone will prove to be a large competitor for SOAR. It is considered a top police drone, with versatile features such as a thermal camera, extended flight time, and advanced safety features. A strength of the Matrice 300 RTK is its speed and reliability. However, a weakness of the drone, similar to Axon Air, is its inability to utilize Artificial Intelligence to increase efficiency. Additionally, DJI's main focus is not security of the community, but rather producing commercial-style drones.

## Potential Future Competitors

### **Anduril Industries**

Anduril Industries is a future competitor for SOAR in the United States because of their focus on autonomous technologies. They are an American defense technology company based out of Costa Mesa, California with 3,500 employees in 2024. They have been active and advancing for 8 years and in 2023, they generated \$500 million in revenue. A strength of Anduril Industries is their large scale and strong connection with the United States Department of Defense. However, a weakness of Anduril Industries is their inability to focus on local communities in need of security.

Feature	SOAR	Axon Air	DJI	Anduril
Fully Autonomous	✓	✗	✗	✓
AI Threat Detection	✓	✗	✗	✗
Deployed from Squad Car	✓	✗	✗	✗
Infrared + Traditional Camera	✓	✓	✓	✓
Government Optimized	✓	✓	✗	✓
Locally Based	✓	✗	✗	✗

### Barriers to Entry

In the drone industry, SOAR will face high entry barriers. The target market has many barriers, including complex regulations such as airspace laws and management. There are also high startup costs for drone technology, especially when utilizing Artificial Intelligence. Additionally, connecting with the Department of Defense and government-run agencies is difficult to accomplish.

---

## **XII. Conclusion**

### Requests for Financing

SOAR requests \$1.5 million to fund the venture. In return, SOAR will provide the investors with 10% equity stake in the company. This initial investment will primarily be used to cover the following early-stage expenses:

- Drone materials and Artificial Intelligence software.
- Machinery and efficient automated systems for the production process.
- Rent costs for the executive headquarters and development warehouse complex in Fenton, Missouri.

## **Financial Situation**

The proposed investment will provide additional financial support for the business, especially in its first 3 years when the EBITDA and Net Profit are both under \$1 million and the company is in its most vulnerable period. This minority ownership will be restricted, though, as SOAR—with 80% majority ownership between co-founders Aiden Erard and Daniel Neuner—will maintain full managerial control over staffing and product/financial decisions. However, SOAR staff will keep their investors' best interests in mind in key decisions and will frequently meet with them at SOAR headquarters.

## **Summary of Key Points**

SOAR will achieve success because of its unique and innovative technology, making it a revolutionary force to the defense drone industry. Its goal is to enhance public safety and efficiency of police corps with technical advancement and Artificially Intelligent drone technology. SOAR aims to innovate the police response process by providing unprecedented surveillance and increased officer awareness through application of just laws while prioritizing the protection of individual rights. The implementation of Artificial Intelligence, high-quality drone design, and an innovative dual camera will allow SOAR to make a positive impact on numerous communities around the United States. Its one-of-a kind software will create easy-to-use drones for police use. Additionally, SOAR's ability to access any and every potentially dangerous scene will provide in-field officers the safety they deserve. SOAR's technology also hopes to reach the military industry in the long term, making an impact on high-level special operations. In all, SOAR will make a positive impact on society by benefiting both police officers and citizens in various regions, leading to a reduction in crime, more satisfied societies, and a healthier bond between the police and their served communities.

# XIII. Bibliography

## Works Cited

- Anduril. "Mission." Accessed January 7, 2025.  
<https://www.anduril.com/mission/>.
- Axon. "Axon Air." Accessed January 7, 2025.  
<https://www.axon.com/products/axon-air>.
- Blue Skies Drone Rental. "Matrice 300 Series." Accessed January 7, 2025.  
<https://www.blueskiesdronerental.com/matrice-300>.
- Consortiq. "A Short History of Unmanned Aerial Vehicles (UAVs)." Accessed January 7, 2025. <https://consortiq.com/uas-resources/short-history-unmanned-aerial-vehicles-uavs>.
- Council on Criminal Justice. Crime Trends in U.S. Cities: Mid-Year 2024 Update. 2024.  
<https://counciloncj.org/crime-trends-in-u-s-cities-mid-year-2024-update/>.
- FBI. "FBI Releases Officers Killed and Assaulted in the Line of Duty, 2023 Special Report and Law Enforcement Employee Counts." Press release, October 16, 2023. Accessed January 7, 2025. <https://www.fbi.gov/news/press-releases/fbi-releases-officers-killed-and-assaulted-in-the-line-of-duty-2023-special-report-and-law-enforcement-employee-counts>.
- Federal Bureau of Investigation. FBI Releases Officers Killed and Assaulted in the Line of Duty: 2023 Special Report and Law Enforcement Employee Counts. U.S. Department of Justice, 2023. <https://www.fbi.gov/news/press-releases/fbi-releases-officers-killed-and-assaulted-in-the-line-of-duty-2023-special-report-and-law-enforcement-employee-counts>.
- Grand View Resarch. "Drone Market Size, Share & Trends." Accessed January 6, 2025.  
<https://www.grandviewresearch.com/industry-analysis/drone-market-report>
- Missouri Department of Labor and Industrial Relations. "General Information." Accessed January 7, 2025. <https://labor.mo.gov/dls/general>.
- National Criminal Justice Reference Service. Response Time: What's the Rush? U.S. Department of Justice, 2021. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/response-time-whats-rush>
- National Institute of Justice. "Research on Body-Worn Cameras and Law Enforcement." National Institute of Justice, U.S. Department of Justice, 2022. <https://nij.ojp.gov/topics/articles/research-body-worn-cameras-and-law-enforcement>.
- Unmanned Airspace. "Global Drone Industry Market Forecasts: Analysts Trim Their Growth Predictions Again." Accessed January 7, 2025.  
<https://www.unmannedairspace.info/utm-and-c-uas-market-analysis/global-drone-industry-market-forecasts-analysts-trim-their-growth-predictions-again/>.
- U.S. Census Bureau. "St. Louis County, Missouri." Accessed January 7, 2025.  
[https://data.census.gov/profile/St\\_Louis\\_County,\\_Missouri?g=050XX00US29189](https://data.census.gov/profile/St_Louis_County,_Missouri?g=050XX00US29189).

# XIV. Appendix

## SWOT Analysis

<b>STRENGTHS</b> <ul style="list-style-type: none"><li>• Strong key message</li><li>• Niche market</li><li>• Advanced technology (ensuring longevity)</li><li>• No money lost advertising to public</li><li>• Realistic product with research and technological capabilities</li></ul>	<b>WEAKNESSES</b> <ul style="list-style-type: none"><li>• Minimal secondary consumer base to fall back on</li><li>• Difficult to advertise</li><li>• Primary customers, local governments, are limited in funding</li></ul>
<b>OPPORTUNITIES</b> <ul style="list-style-type: none"><li>• Scalable in long term</li><li>• Government grants with high upper limit on federal level</li><li>• Innovative technology capable of revolutionizing the police industry</li></ul>	<b>THREATS</b> <ul style="list-style-type: none"><li>• Potential competition in AI and drone industries</li><li>• Rejections by local/state governments</li><li>• High startup costs make it difficult to initially scale company</li></ul>

### Location

SOAR will be located along Interstate 44 in Fenton, Missouri. Fenton has a population of approximately 4,000 and is a central hub for corporate warehouses, such as Amazon, as well as a high-traffic area of transportation. The available land for real estate will allow SOAR to develop drone technology with ample warehouse space while providing easy access to major interstate highways (Interstates 44, 270, 64, and 55) that will connect the company to police stations in all regions of the United States. Close proximity to the downtown city of St. Louis will put SOAR near major venture capital firms, such as Cultivation Capital, that will provide financial support for the company in its early stages, ensuring SOAR's long-term success.

## Risk Analysis

### **Business Risks**

As a startup business, SOAR will face many risks involving employees. On average, startup employees leave after 2 years, making it difficult for the business to continue expanding. Additionally, SOAR must cooperate with federal and state laws involving drone technology. While working with police corps, SOAR faces the risk of lawsuits due to misconduct involving surveillance drones, such accidental damage to private property.

### **Product Risks**

As updates are made in the evolving Artificial Intelligence industry, SOAR will need to change their own product to prevent competitors from outperforming them in AI capabilities. SOAR will be challenged to maintain a unique and up-to-date product.

### **Financial Risks**

Maintaining employees and customers from counties across the country will be necessary for SOAR financially. Additionally, SOAR must pay off their warehouse mortgage(s) appropriately. If the company falls behind in payments, they face the risk of low or negative profit margins. Moreover, SOAR's market is narrow and potentially difficult: police forces are tax-funded and not-for-profit organizations without investors or a high amount of capital available to spend on drones. This presents SOAR with a risk of little demand in their target market.

**Survey of 100 St. Louis County residents regarding advancements in police technology**

