

TECHTRONIX

Capstone Project

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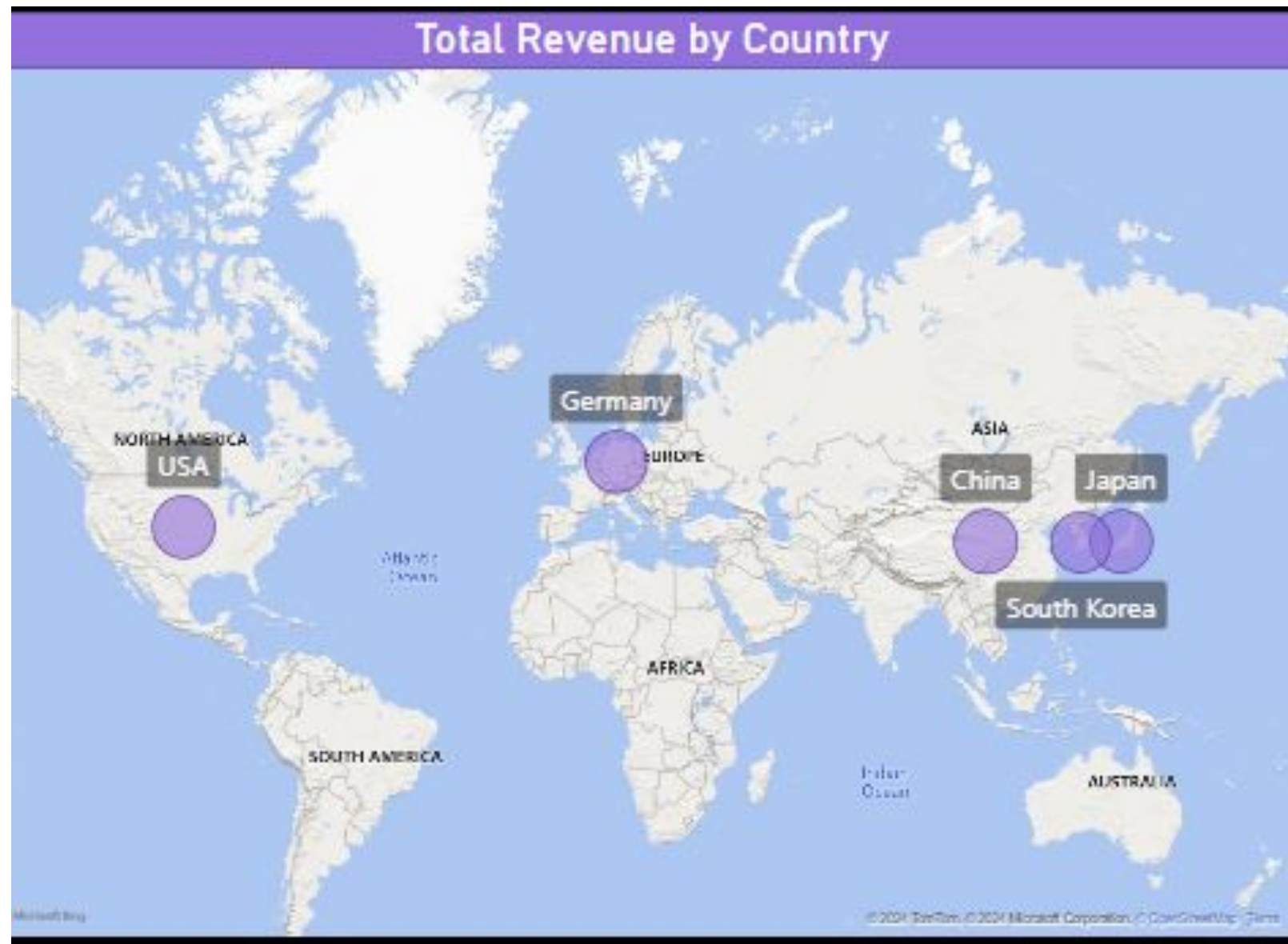
Case Overview

Techtronix Innovations, a forefront player in the microchip and robotics industry, is encountering challenges in streamlining its sales strategies, optimizing production planning, and pursuing market expansion. The company boasts an extensive portfolio that caters to automotive, consumer electronics, and industrial sectors. However, it grapples with demand unpredictability, inventory management inefficiencies, and the identification of profitable market opportunities.

Over the previous year, Techtronix Innovations has meticulously compiled a dataset encompassing each transaction, encompassing sales data, customer interactions, product specifics, and financial metrics. This dataset presents an invaluable opportunity for in-depth business performance analysis, trend identification, and insight extraction to inform strategic decisions.



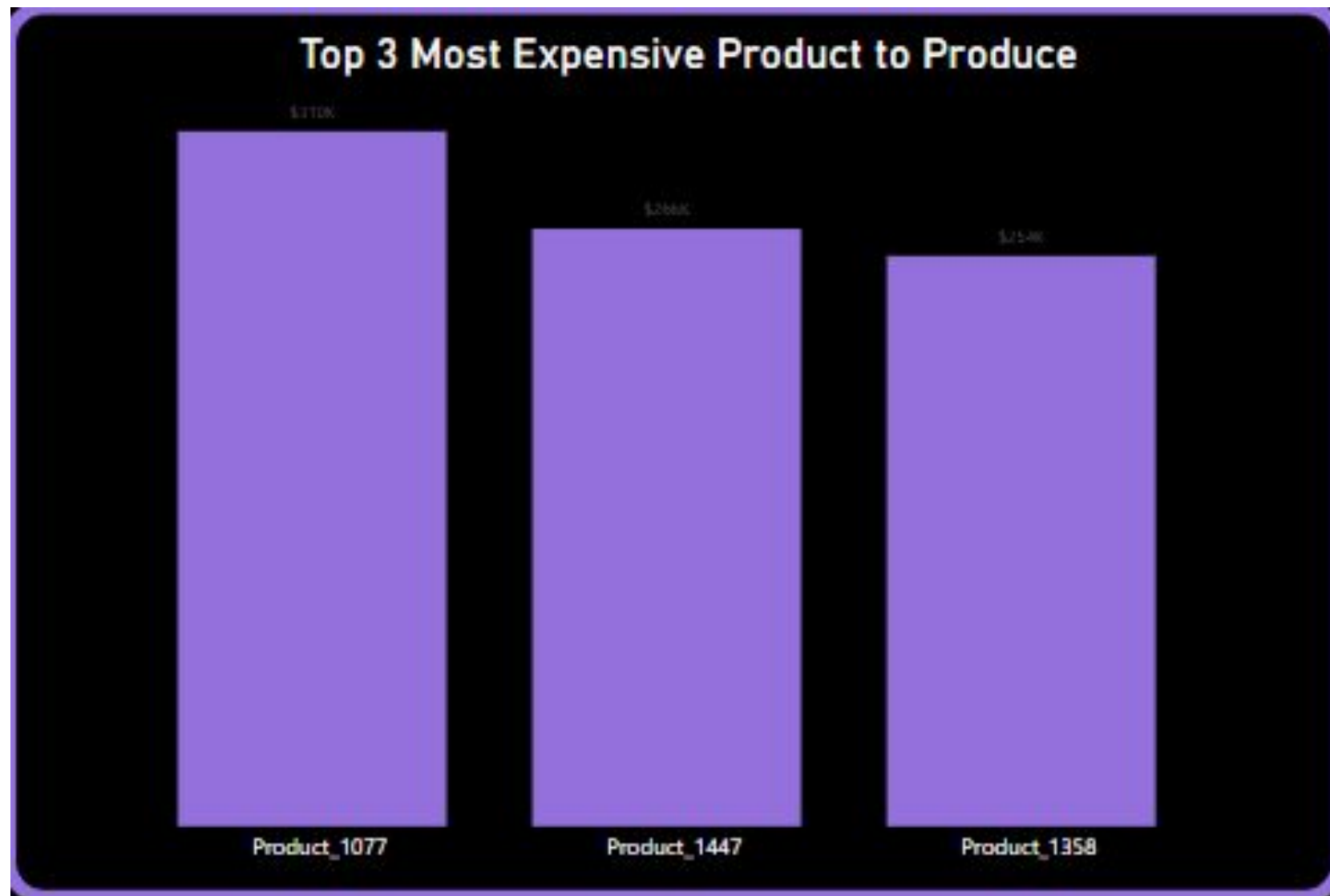
Total Revenue by Country



- This indicates that China is the most lucrative market, but other countries like the USA and Germany are also key contributors to overall sales. It may be beneficial to focus efforts on these top markets to sustain or increase revenue growth.



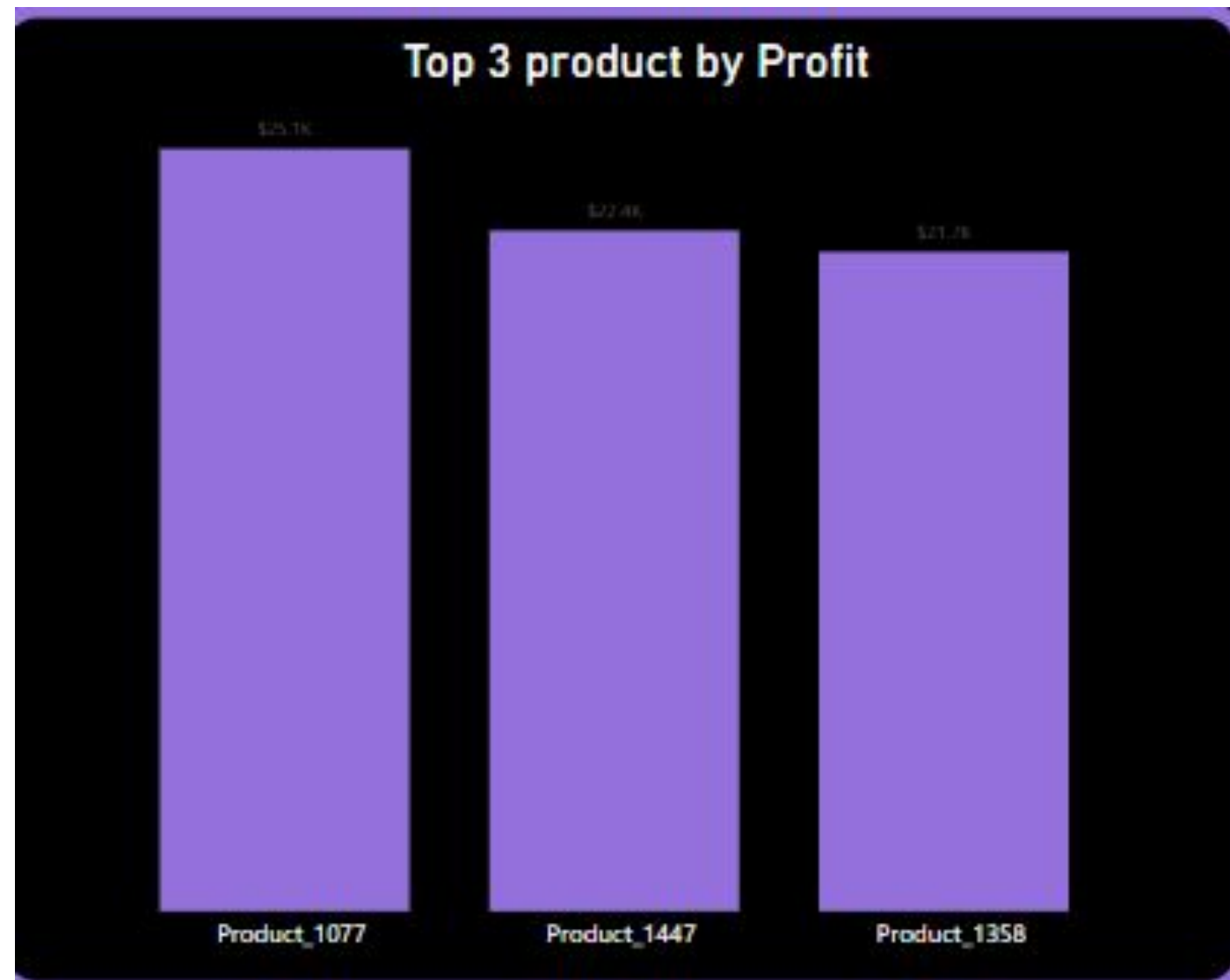
Top 3 Most Expensive product to produce



- The top 3 most expensive products to produce, based on average production cost, are:
- Product_1077 with an average production cost of \$309,980
- Product_1477 with an average production cost of \$266,487
- Product_1358 with an average production cost of \$254,403



Top 3 products by profit

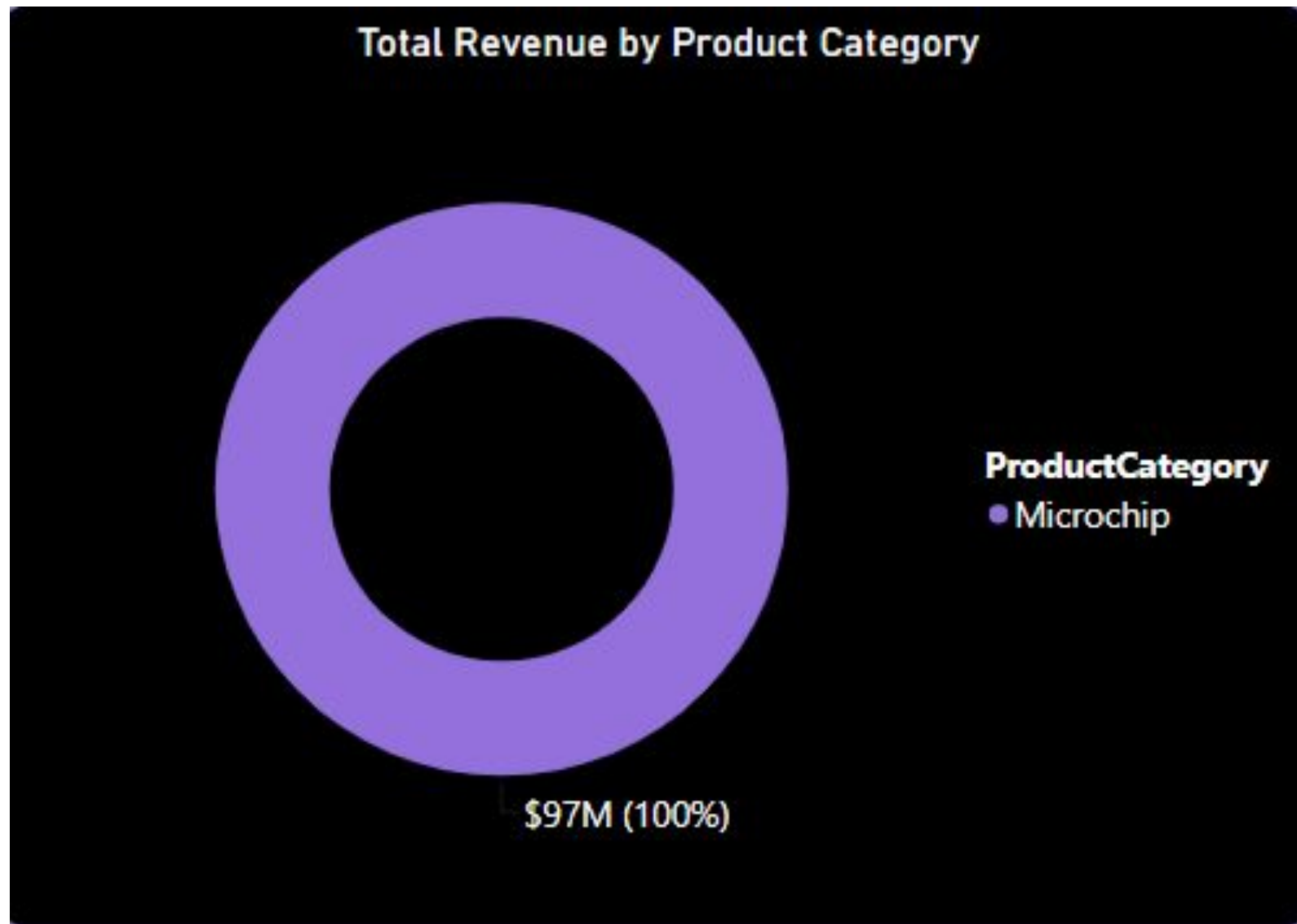


- Product_1077
- Product_1447
- Product_1358

These products generated the highest profits and were key contributors to overall profitability.



Total Revenue by Product Category

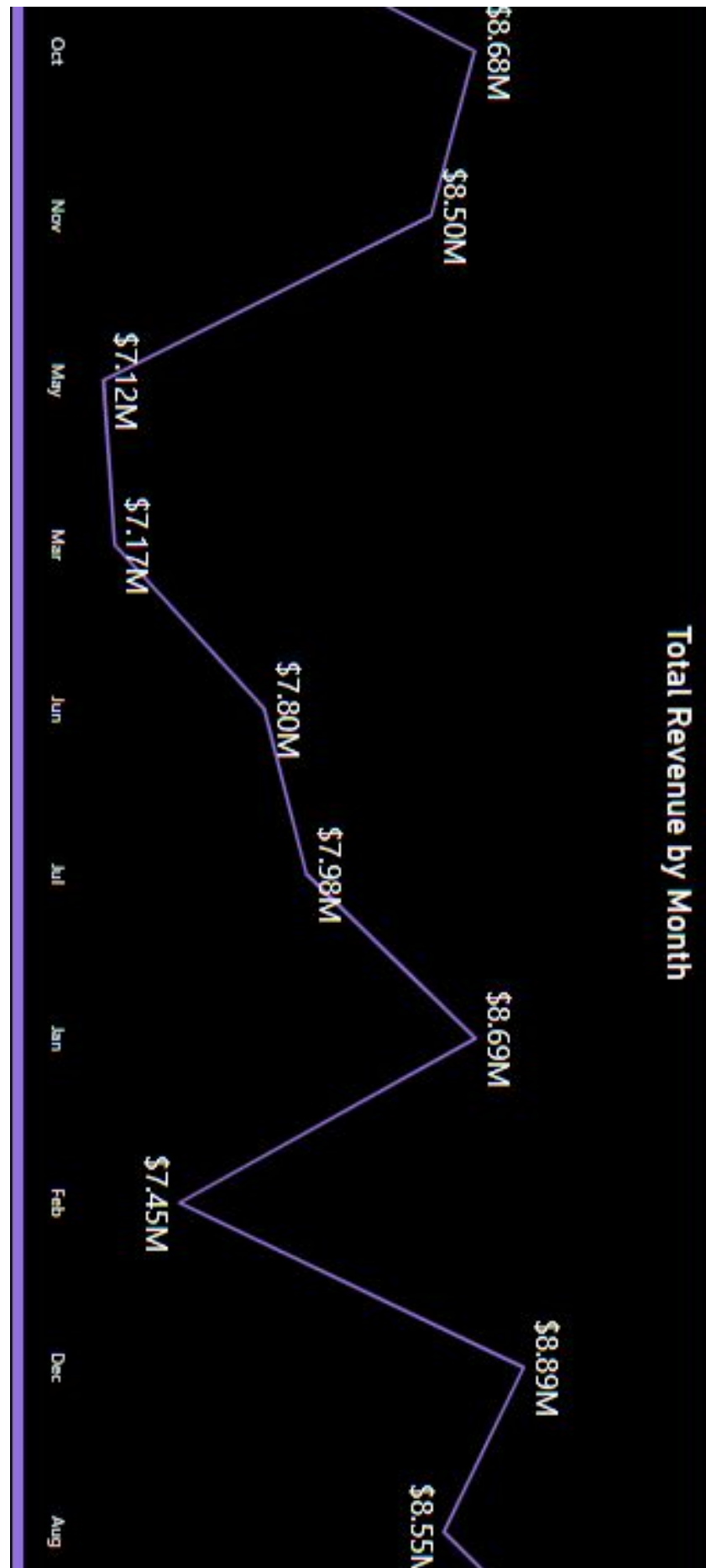


- This breakdown shows that the microchip category leads in revenue, followed closely by sensors and Robotics. These categories are key drivers of sales and revenue in your product portfolio.



Total Revenue By Month

- The chart shows how total sales vary month by month. Some months have clear peaks, indicating higher sales, while others might be lower, reflecting slower periods.



Recommendation

To improve, Techtronix needs to focus on boosting high-revenue and high-profit categories like Sensors and Microchips while optimizing underperforming products such as those in the Robotics sector. Leverage strong markets like the USA, China, and Japan, and enhance profitability in potential growth regions like North America. Additionally, address production costs, capitalize on seasonal sales peaks, and consider diversifying product offerings to attract new customers and markets.

The background is a solid purple color. It features several white hexagonal patterns. In the top right and bottom left corners, there are clusters of hexagons, some of which are solid white and others are white outlines. Scattered across the background are various sizes of solid purple hexagons and white hexagonal outlines, some of which are interconnected by thin white lines, creating a network-like structure. A large, white-outlined rectangular box is centered on the page, containing the text "Thank You".

Thank
You