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Once William Shakespeare said, “Some are born great, some achieve greatness, and some have greatness thrust upon them!”

If you wish to meet someone who is born great - Meet **Jamie Marraccini**, an Electrical Engineering graduate from Virginia Tech, and the **CEO & President of Inertial Labs**. Jamie is an innovative man who has dazzled us all with his abilities and witty personality.

Some may know Jamie from his first company, **Gum Art**! A company created to make art out of chewed gum. You heard it right! Gum!

This is one of the most spectacular parts of his visionary experience that he has been carrying with him till date.

But Jamie's real success story came in 2001, when Inertial Labs, an inertial sensor manufacturing company, was formed after many SBIR and BAA contracts leading to 3 programs of record and twice being labeled an SBIR success story.

By 2007 commercial products were being launched using MEMS technology (Micro Electromechanical Systems) for platform orientation monitoring, and innovations in the field of motion capture and biomechanics.

One of Inertial Labs most successful products during this time was the 3D Body Suit - a full body motion capture system, which could track human movement in real-time. As the company continued to evolve, so did the products. Inertial Labs inertial sensors continued to mature in accuracy and precision as methods for calibration and manufacturing developed.

By 2009 Inertial Labs had developed The Weapon Orientation Module (WOM) and the Optically Enhanced Weapon Orientation Module (OptoWOM) - two of the first

orientation sensors produced by Inertial Labs which were sold to the US Army for mortar aiming programs.

Inertial Labs' first MEMS Inertial Measurement Unit (IMU) was released in 2014 for a variety of Industrial and Defense applications. Since 2014 Inertial Labs has been supplying around 5,000 IMU units annually and playing a significant role as a reliable supplier of MEMS Inertial Measurement Units to customers around the world.

Between the years of 2015 and 2018 there were 15 new product types of Orientation, Motion Control and Inertial Navigation systems released with bespoke specifications to satisfy clients and meet market requirements. One of these products was "The GPS Aided Inertial Navigation System", Inertial Labs' first PNT solution.

Inertial Labs Navigation Solutions immediately became very popular because of its fantastic price performance ratio and features, which makes these Navigation Systems the most cost effective solutions for applications like Autonomous Vehicles, Unmanned Ground Vehicles, Unmanned Aerial Vehicles, Precision Agriculture and even Loitering Munitions where precise Attitude is really Everything!

Inertial Labs quickly began to partake in large programs with companies like Raytheon, developing antenna reference units, and General Dynamics Land Systems, specializing in solutions for navigation of the land vehicles in GPS-denied environments.

In early 2019, Inertial Labs developed and released "The Remote Sensing Payload Instrument", RESEPI, that combines: GNSS receivers, IMU's, data loggers, processing modules, LiDAR scanners, and RGB cameras into a single device – used for generating 3D point clouds for surveying applications.

RESEPI became the first affordable high precision solution on a market for remote sensing applications like mapping, utilities inspection and survey with an offer to be supplied under the Inertial brand of white labeled solution for precise remote sensing.

In 2021 Inertial Labs announced the acquisition of MEMSENSE, a longtime partner and manufacturer of IMU's. But that's not all.

By 2022, the company now offers over 25 new products for combined operations in Air, Land, and Sea applications.

Like:

- **3D Mapping**
- **Antenna Reference Stations**
- **Augmented & Virtual Reality**

- **Autonomy**
- **Bathymetry**
- **GNSS-Denied Navigation**
- **Land-Based Defense**
- **Pointing and Stabilization**
- **Precision Agriculture**
- **Robotics**
- **Construction Safety**
- **Tracking & Security, and so much more!**

Wow! Isn't this awe-inspiring? But hold on, there's more.

With such groundbreaking achievements over the previous two decades, Inertial Labs have further planned to develop a single hardware solution for end users to use as a foundation for autonomous platform development. This solution would be a hardware system that includes a GNSS receiver, a tactical or navigation grade IMU, a LiDAR, and a camera, as well as a powerful processing and graphics card module for extensive algorithm development. It's pretty amazing!

Additionally, in 2022 - 2023 Inertial Labs plans on releasing a patented MEMS sensor gyrocompass that will compete against conventional Fiber Optic Gyroscope (FOG) solutions... and it’s ASTOUNDING!

This is Inertial Labs, one of the most rapidly expanding R&D tech companies in the United States with a global distribution network spanning 25+ nations across six continents.

Hundreds of customers around the world like THALES, Raytheon, Hyundai, Sony, Toyota, SpaceX, Lockheed Martin, Rolls Royce, and Airbus are using our MEMS solutions and trust us as an incredibly reliable partner!

Inertial Labs – Attitude is everything!