

Voler Systems

We make your design fly

Electronic design and firmware consulting is all we do at Voler Systems.

We specialize in wearable and IoT devices. We help companies of all sizes create medical and consumer devices. We deliver quality products on time and on budget. Our design process mitigates technical risk, AND the products are easily manufactured. We're known in Silicon Valley as the "Engineer of Engineers." No one is better at electronic design and software on hardware.

Hi, I am Walt Maclay. In 1979 I founded Voler Systems out of my love for both engineering and helping people by providing them with highly successful solutions. Voler's engineers average 30 years of experience.

Our 4 decades of electronic design expertise AND project management make you successful. As one of our happy customers said, "Voler stands for engineering acumen, customer service, and integrity." Voler in French means to fly. We make your design fly. We have specific knowledge about sensors, wireless communication, power management for battery operated devices, and medical devices. We are the ones who get called in when the projects are tough. We succeed at projects that other consultants previously failed to complete. We save you problems in manufacturing that can cost more money than all you have spent on product development.

"We are an international startup in AI software technology. We needed electronic design for AR glasses that could be easily manufactured. This project involved major risks, such as a high speed processor with complicated power management, high speed video processing, 3-D camera technology, and fitting the equivalent of a cell phone into a very small space, all on a short timeline. Voler coordinated closely with the mechanical and optical teams to get everything to fit. Voler delivered on budget and on time for the Consumer Electronics Show. Few other firms could have done so well."

For another mid-sized corporation, we designed all the software for a heart pump, a Class III medical device. We wrote and executed the verification protocol, and wrote the documentation submitted to the FDA. The device was approved with no questions about the software, which is unheard of. A year later, we did the same process for a revision of the software; again, no questions from the FDA.

"We are a billion dollar cosmetics company, we needed a heating and ultrasound device that applies anti-aging cream to the face. In just one of many design decisions, Voler cut the cost by \$1 per device, which saved us \$500,000 in manufacturing, that's far more than what we paid them for the whole design! As a result of cutting \$1, the firmware became critical, since the device would fail if not written correctly. Out of half a million devices manufactured in 6 months,

99.9% worked. This device continues to receive 5-star reviews from consumers worldwide, thanks to Voler's superior design."

We pride ourselves in being the best in electronic design and software that runs on hardware, especially on wearable and IoT medical and consumer devices. However, we are not a jack of all trades. To complete an entire product we refer clients to the best mechanical design firms and other partners. In 40 years we have developed deep relationships with these partners. Voler provides overall project management among all collaborators to ensure your products' success.

Engineering + Serving Others + Successful Solutions = Voler Systems.

Voler stands for these four values:

- 1) The Best in electronic design & firmware consulting.
- 2) Project-management insight to ensure design success.
- 3) Design to be manufacturable.
- 4) Help ensure the success of our customers and & employees.

Your success is our only measure of success. In the next video, we will share how we ensure success. To contact us, Please call: ____ or email us:____ or visit our website:

(For Video #2: How We Ensure Success)

In our 1st branding video, we stated that Voler stands for these four values:

- 1) The Best in electronic design & firmware consulting.
- 2) Project-management insight to ensure design success.
- 3) Design to be manufacturable.
- 4) Help ensure the success of our customers and employees.

Now we share with you how we ensure success:

The Best in electronic design & firmware for medical & consumer wearables and IoT devices

Most people come to us with these concerns: 1) Cost – “Are you going to make projects longer and bigger than necessary?” 2) “How fast can you deliver?”, and 3) Can you make the design work well, and be mass producible?”

A client wanted to pay us extra, for an unnecessary part of their product design, that would've cost them an extra \$60,000. I advised them from experience that what they wanted to add was not necessary. After much persuasion, they got it, and they were deeply thankful. Our design engineers provide all relevant skills, or just what you need. We always look for ways to reduce cost, shorten schedules, or improve quality. Our clients' trust in us is our highest payoff.

Project management insight

This is how we manage successful projects:

- Requirements: define scope and details at the start, with complete requirements.
- Plan: detailed schedule and budget.
- Communication: Weekly meetings and reports on risks, schedule, and budget.
- No bureaucracy: Clients communicate directly, one-to-one, with our engineers. “We were delighted with Voler’s professionalism and capabilities, characterized by a consultative understanding of our needs, frequent communication of progress and challenges, and delivering our project within cost and time expectations. Voler fixed and delivered a prototype that two prior firms failed to complete.”

Design to be manufacturable

A great design is not enough to get you anywhere, without knowing every nook and cranny about what’s further down in production. After 40 years, we know ahead of time the swamps, the curves, and the rapids down the stream, and how to design for manufacturing (DfM), which is essential to ensure your success. One customer said, “The FPGA code has not required revision since you released the design.” Another said, “The diagnostic device you designed for us is working extremely well.”

Help people create THEIR success

Our goal is to always make customers successful.

Our passion is improving people’s lives with great products. I spend time helping where I see it is needed, even if the customer does not see it. “Their design worked the first time, and has been working reliably for years. They made a difference in my company’s growth from a 12 people company to a mid sized company.”

Here are just a few of a growing list of highly satisfied customers, from startups to multi-billion dollar global corporations: Abbott, Boston Scientific, Nevro and other medical device companies; Rokid, an up and coming AR company, Jawbone, a consumer and wearable products company, Faraday Bikes, an electric bicycle company, and many more. We do analog and digital circuit design, schematics, circuit board layout, engineering prototypes, software and firmware, Motion control, Home health, Instrumentation circuits, computer interfaces and transfer to production.

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Walt McClay, Owner, CEO, Chief Engineer of Voler Systems: ● PATCA president, 2008-2010 ● IEEE Senior Member, 2010 ● IEEE Life Member, 2016 ● Reviewer for National Science Foundation Small Biz Innovation Research grants() ● Advisor to dozens of startups ● A speaker on new technology at various events ● A judge, panelist, invited speaker, and a mentor to others in the field.