

MARK A. FILIPOWICZ

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Ability Summary

Innovative and results-driven Principal Mechanical Engineer with over 30 years of experience in designing, developing, and manufacturing cutting-edge mechanical and opto-mechanical systems including the controls selection and integration. Mission-driven and highly adaptive team player with a very versatile skill set. Highly proficient with AutoCad, SolidWorks, Inventor, and Onshape 3D modeling software.

Employment History

Principal Mechanical Engineer

1/2021 – 11/2024 Neatleaf Inc. 1800 Green Hills Rd STE203, Scotts Valley, CA

Developed and validated the mechanical design for a cable based agricultural robot that has been deployed over 70 times across the US, CA, PR, and EU. Developed the production process and transferred it to a contract manufacturer. Led installation design and onsite installation at customer sites.

Owner/Consulting Mechanical Engineer

10/2017 – 1/2021 Mark's Custom Stuff (full time) 355 Martin Dr, Scotts Valley, CA

Consultation of several clients including II-VI, Light Field Labs, Maryatt Technology, Paramit R&D, and Poltex. Responsibilities included opto-mechanical and laser welding tooling, hospital organization products, and microfluidic assemblies.

Principal R&D Tooling and Process Mechanical Engineer

11/2013 – 10/2017 II-VI Inc 2680 N 1st St, San Jose, CA

Designed several free space optical devices for the telecom industry and the precision optical alignment systems with nanometer precision to produce these devices. Responsible for the transfer of the process and tooling to China. Contributed to several patents. Designed a fiber array and a means to produce it for Google fiber. Transferred production to Photop in China.

Principal R&D Tooling and Process Mechanical Engineer

06/2012 – 11/2013 Oclaro Inc 225 Charcot Ave, San Jose, CA

Designed an optical channel monitor for the telecom industry and the precision optical alignment systems as well as related tooling for production. Transferred the process and tooling to Thailand. Group was bought by II-VI so this job transitioned into the next.

Senior Mechanical Engineer

04/2008 – 06/2012 Capella Photonics Inc 5390 Hellyer Ave, San Jose, CA

Designed automated and manual tooling and process to assemble a WSS (Wavelength Selective Switch). Transferred the process and tooling to Thailand.

Owner, Principal Engineer

01/1994 – Present Mark's Custom Stuff (part time) 355 Martin Dr, Scotts Valley, CA

Started this business to contract my mechanical engineering services while also working full time as a machinist. Contracted and manufactured hundreds of tools.

Machinist

07/1988 – 03/2011 Polcraft Inc 600 Laurelwood Rd, Santa Clara, CA

Proficient machinist with both manual and CNC equipment. Specialized in Wire and Sinker EDM. Built and assembled thousands of precision tools including own designs. Skills include hand coding of G-Code as well as macro programming.

Patents

Several patents granted in the opto-mechanical and mechanical fields that are testament to my creativity. US20180074266A1, WO2016154090A1 (plus 4 variants), US10209447B2, US20200229599A1, US20180210151A1, [Link to google patent search with complete list](#)

Activities

Created mechanical art including embedded boards and code for various events.

Part of an event organization team for over 5 years with over 3000 attendees. Responsible for site plan and placements.

Designed and built a remote control truck from scratch in 1999 that was featured in several magazines including machining trade publications.

More information can be found on my website www.marksmark.net

Detailed References

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