

Exponent®
Engineering & Scientific Consulting

James Tobin, M.S., P.E.

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Professional Profile

Mr. Tobin's areas of expertise include lithium-ion battery pack safety and design, automotive systems, and 3D modeling. His education and professional background cover a range of new and emerging topics related to transportation and engineering in the electric vehicle propulsion area, including electric motors, battery design and safety considerations, and electro-mechanical systems integration.

He has worked on developing these technologies for use in the off-road transportation space. His design background utilizes SolidWorks modeling and SolidWorks Simulation to assist in the assessment of vehicle components including motorcycle frame geometry, suspension design, high voltage power electronics, and lithium-ion battery pack design. Additionally, Mr. Tobin's testing activities include passenger vehicle driving evaluations, electrical component testing (including batteries), emissions control testing, and fatigue failure testing.

Mr. Tobin holds an M.S. in Engineering from Arizona State University. For his M.S. degree, he designed, fabricated, assembled, and tested a fully electric off-road motorcycle. As part of his curriculum, he covered a wide range of additional engineering topics including robot kinematics, PCB manufacturing, and electronic circuit design. Mr. Tobin has integrated this knowledge into hands-on experience across a range of automotive systems.

Academic Credentials & Professional Honors

M.S., Engineering, Arizona State University, 2020

B.S., Robotic Engineering Systems, Arizona State University, 2019

Licenses and Certifications

Professional Engineer Mechanical, Arizona, #85836

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