

# STEPHEN D. GARDNER

## EDUCATION

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1989	University of Missouri	Rolla, Missouri
	<i>Bachelor of Science, Mechanical Engineering</i>	
2006	Northwest University	Evanston, Illinois
	<i>Traffic Accident Reconstruction II</i>	
2007	Northwest University	Evanston, Illinois
	<i>Heavy Vehicle Accident Reconstruction</i>	

## PROFESSIONAL EXPERIENCE

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July 2006 to Present MK & Associates, LLC  
*Consulting Mechanical Engineer/Illustrator*

Performs forensic engineering investigation, testing and analysis in the area of mechanical systems; work includes analysis of mechanical and electro mechanical products; specific areas include traffic accident reconstruction, industrial equipment, aviation, automotive instrument restoration and other mechanical systems, testing domestic equipment and failure analysis of complex mechanisms. Graphic production to support client's need for litigation including technical illustration, visual sequencing, configurations, operational flows, assembly relationship, courtroom models, 2-D animations, 3D models and models and drawings for use as demonstrative evidence.

March 2003 to July 2006 Senne, Kelsey & Associates  
*Consulting Mechanical Engineer*

Performed forensic engineering investigation, testing and analysis in the area of mechanical systems; work includes analysis of mechanical and electro mechanical products, as well as traffic accident reconstruction. Graphic production configurations and other illustrations as needed for use in depositions, reports and as exhibits in trials.

1991 to Present Freelance Writer  
*Technical Writer*

Writes and edits various technical articles for several publications, including Indoor News and Views, as well as providing technical illustrations and photography; wrote and illustrated assembly manual for ARF Radio Controlled Model Aircraft technical illustration and engineering graphics, including basic animation techniques.

1988 to Present Consultant  
*Contract Construction and Flight Testing*

Contract construction and flight-testing of high performance aerobatic model aircraft; responsible for the detail design, construction and commissioning of 26 foot flow visualization wind tunnel for the University

of Missouri, Rolla's Aerospace Engineering Department that is still in use.

1991 to 1992 Great Planes Manufacturing  
*Design Engineer*

Created new product design featuring great applicability and reduced production costs; invented tooling systems; produced product designs; developed testing device for consumer uses; authored and illustrated technical assembly manual later adopted as first master template for additional manuals; designed injection molded products using fiber reinforced thermoplastic engineering materials.

1982 to 1987 Dixie Aire  
*Mechanic*

Largest Cessna repair service in Alabama; licensed in airframe and power plant mechanics; responsible for budgeting and management of a department providing engineering support services for an aircraft maintenance facility; participated in construction of male molded composite construction aircraft using urethane, PVC and poly-styrene foams along with carbon, Kevlar and s-glass fibers in thermosetting plastic matrices.

1982 to 1985 Detail Macro Photography  
*Photographer*

Detail macro photography of fine jewelry for design and insurance purposes

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#### PROFESSIONAL MEMBERSHIPS AND OTHER QUALIFICATIONS

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National Academy of Forensic Engineers (NAFE)

- *Correspondent*

Experimental Aircraft Association

- *Member since 1976; Technical Designee*

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#### CERTIFICATIONS

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Certified Safety Consultant by Missouri Division of Labor Standards

Accreditation Commission for Traffic Accident Reconstruction (ACTAR)

- *Full Accreditation as a Traffic Accident Reconstructionist*

Private Pilot Certificate

- *Single engine land; Tail wheel sign off; Sail planes; 410 total hours*

Airframe and Powerplant License

- *Federal Aviation Administration Certificate Number 499725126*