

Stephen W. Frey

Stephen W. Frey was born in Dayton Ohio and attended Dayton City and Mad River Local Schools. He received an Associate in Science Degree in Electronic Engineering Technology from Sinclair Community College. After college he spent four months as a Quality Control Technician at RL Drake Company in Miamisburg Ohio while seeking a job in engineering. That job came with an offer from the Johnson Controls Inc. Dayton Office for a position as an Application Engineer doing Building Automation Systems involving Computer Based HVAC controls, Security, Fire Alarm and Clock systems. For a period of years he was responsible for over 50% of the patent disclosures coming into the Johnson Controls Milwaukee headquarters from the field offices. These innovations included work in self-calibrating actuators, actuator controllers, adaptive optimal start controllers, pneumatic actuator position sensors, solar tracking systems, fire alarm circuit improvements and a wire tracing aid to name a few. After a 21-year career at Johnson Controls he had the opportunity to start his own company 9 years ago. That company, SWFTEC, also does HVAC controls but has diversified into more of Stephen's areas of interest. SWFTEC does control systems, embedded controllers, electronic design, firmware, software, Graphic Program Generation tools, Graphic User Interfaces, mechanical systems design and construction, special integrated circuits for special applications, sensors, and more. One of his on-going research interest is developing and applying his solution to the "binding problem". This represents an understanding of how the brain puts together the inputs from the world around us to create our perception of the world and how that same system allows us to act in the world. Fundamentally, how the brain works. This research can be applied to lots of areas of science and engineering. From understanding brain disorders and the behavior of people and using that knowledge in the creation of new treatments and problem solutions, to designing control systems that break the normal rules of reliability. These systems are more reliable the more complex they are. They are more reliable the more parts they have.

Stephen is involved with lots of area organizations and activities.

- President, Inventors Council of Dayton
- Inventors Council of Dayton representative to the Entrepreneur Development Network (EDN) in the Dayton Area.
- Inventors Council of Dayton representative to the Affiliate Societies Council (ASC)
- Member, ASC TechFest Committee since 2002
- Member, Engineer's Club of Dayton
- Barn Gang Speaker
- Member, National Aviation Hall of Fame
- Speaker for the National Aviation Hall of Fame Education Department
- Member, Miami Valley Consultants Network
- Member, Dayton Microcomputer Association
- volunteer, Dayton Computer Museum
- special events volunteer, National Museum of the U.S. Air Force
- member and sometimes presenter, WSU Archives - Huffman Prairee Chapter of the American Aviation Historical Society (AAHS)
- Presentations to various groups on Wright Brothers Aircraft, stability, control, Science, Engineering and Inventing etc...
- aviation groups, special events, schools, Boy Scouts etc.
- sometimes Science Fair Judge
- volunteer assistant coach, Wright State University / Ferguson Middle School First Lego League Teams

Stephen's interest includes all of science, the nature of things. His hobbies include radio control models and astronomy, and his sports activities include bike riding, swimming, snorkeling and sailing.