**Vincent M. Reagin**

***Engineering Manager***

Phone: 813-838-3932

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**Professional Skills**

* Have managed over 300 engineers and project managers for over 15 years.
* Plastic Injection molding experience and tool and die builds up to 48 cavities.

o        Patented plastic chimney cap free of corrosion and resistant to UV and heat.

o        Developed Plastic injection molding process to disperse Nitrogen gas into barrel to reduce amount of plastic resin used in areas of non structural integrity saving material usage annually

o        Created prototype and production intent plastic injection tooling from QC-7 Aircraft aluminum in 1991 producing steel stamped parts, reducing program cycle by 65% of normal program timeline. From concept to production.

o        Injection molding tool design and calculating slides, cams, draft, heat and temperatures.

o        Ability to run injection molding presses, suitable materials for the application and temperatures as well as technical writing for process engineering.

o        Automated pick and place systems with Vision Systems and conveyors from injection molding presses to final inspection.

o        Welding Systems and Welding Fixture Design as well as Building Turn Key Systems for MIG, TIG, Laser, Oxy Fuel and Plasma Welding.

o        Laser (Robotic Remote Laser Welding Heads), Plasma and Oxy Fuel (20+ years)

o        Robotic Welding Cell design, integration and build (20+ years)

o        Experienced and familiar with ERP, MRP, Cloud, C++, Java, VB (5-7 years)

o        Manufacturing Equipment - Familiar with Presses (Stamping, Die Cast and Injection

Molding) CNC’s, EDM’s, Rapid Prototyping, NC Lathes, Green Sand and Foam

o        Robotic Programming - Fanuc, Motoman, ABB, Adept, Denso, Nachi (20+ years)

o        Vision Systems - Inspection, Pick and Place, Color Identification and Bar Coding

Cognex, Keyence, iRVision (15+ years)

o        HMI Programming - WinnCC, Wonderware, Factory View, Siemens Simatic (15+ years)

o        Manufacturing Equipment - Operated Presses (Stamping, Die Cast and Injection Molding) CNC’s, EDM’s, NC Lathes, Foam Casting, Grinding Machines, Robotic Work Cells (Design, Fabricated, Commissioned and Integrated) also operated Welding Cells, Forklifts, AGV’s, 3-Axis and 5-Axis Lasers, Wire EDM, (Trumpf, Nachi, Amada, RofinSinar Resonators)

o        Control Panel Design and Build (15+years)

o        Automation Safety Systems and Components - SICK Safety Systems, AB Rockwell GaurdiLogix, Keyence and Banner (Scanners, Mats, Light Curtains)

o        PLC Programming - Rockwell Allen Bradley Contrologix, CompactLogix, MicroLogixControl, PLC 5 to RS Logix 5000, Siemens Simatic S7, Mitsubishi, OMRON.

o        Engineering Skills - Controls, Tooling, Product Design, Automation, Mechanical (23+ years)

o        CAD Systems - PRO-E, Mastercam, Autocad, Autocad E, PDGS, Catia, Solidworks, UG, ePlan, Creo, Solidworks and Surfcam (12 years)

o        Implemented and team member - Jidoka, Lean Mfg., JIT, Kaizen, Kanban, ISO/QS (10+ years)

**Education**

o       **Master of Business Administration, MBA** University of Phoenix, Troy, MI (1998)

o       **Bachelor of Arts,** Business Administration/Human Resources, Concordia University, Ann Arbor, MI (1994)

o       **Industrial Engineering, Bachelors oF Science,** Central Michigan University, Mt. Pleasant, MI (1986)

**Software and Technical Skills**

o       **Robotic Programming** Fanuc, Kuka, Motoman, Denso, Adept, ABB, Epson

o       **PLC Programming -** Siemens Simatic Step 7 300 thru 1500, Rockwell AB RsLogix 5000 PLC's, SICK Safety Systems, OMRON PLC, Mitsubishi PLC, Comau PLC. Vizio (Flow Chart and Value Streams).

**o**       **Drives -** Siemens, Allen Bradley, Dayton, Eaton, Fuji

**o**       **HMI -** Factory View, WinnCC, Wonderware

**o**       **Vision Systems -** Cognex, iRVision, Keyence, OEM

o       **Welding Systems -** Laser, Resistance, MIG, TIG, Oxy Fuel, Plasma.

o       **Programming Languages include** C++, Java, Visual Basics

o       **Vision Systems -** Cognex, Fanuc, Kuka, ABB, Denso.

o       **CAD/CAM/CNC Software**- Catia, Creo, Pro-E, Mastercam, AutoCAD and AutoCADe, Solid Works, ePlan, UG, PDGS, 2D and 3D Solid Modeling, Visio

o       **Motion** - Pilz, Mitsubishi, SEW, Delta

o       **Drives** - Dayton, Eaton, Fuji, WEG, Siemens

o       **Communication** - Ethenet IP, Devicenet, Profibus, Anybus

**Certifications, Member and Affiliations**

Member - SAE Society of Automotive Engineers, ANSI, Member - RIA Robotics Industries, ISO/QS, Certified Kuka and Fanuc Robotic Programming, Member - MMBDC Michigan Minority Development Council Certified, SokaGokkai International.

**Continued Education**

Jidoka, Kanban**,** Lean Manufacturing**,** Kaizen**,** ISO/QS**,** JIT**,** UAW and USWA Labor Relation,

401K Administration, Recruiting and Training, Hazard Awareness, MSDS, Productivity

Improvement, Vizio, Kuka Robotics Programming, Fanuc Robotics Programming.

**Summary**

•           Professional with 23 years of experience in Plastic Injection Molding, Program Management, Automation Engineering with an emphasis on Applications, Robotics, Vision Systems, PLC Programming and Automation Integration, implementing IT Intelligence Systems. .

•           Products include Custom Stampings, Plastic Injection Molding, Castings, Electronics, Controls, PLC’s, Industrial Durable Goods, Rapid Prototypes, Solutions Software,

•           Extensive knowledge Market Demographics, Value Propositions, Market Trends, Manufacturing Budgets, Cap Ex Budgets, Planning, ROI analysis, P&L’s, Balance Sheets, and Market Forecasting.

•           Products include custom built machinery, laser and vision systems, rapid prototypes, 3D, SLA, LOM, 3D Copier Components, Stampings, Plastics, Castings and Reaction Injection Molding.

•           20 years of developed relationships within the Automotive, Department of Defense, Industrial, Engineering and IT Sectors.

•           Strong Automotive Supplier Relationships with Lear, Denso, Johnson Controls, Valeo, Continental, Magna, Delphi, Textron, and Robert Bosch.

•           Heavy Equipment Relationships within John Deere, Kubota, Caterpillar, and JLG

•           Department of Defense: ATK, Tacom and Chromalloy

•           Automation, custom manufactured products for the automotive Industry, department of defense, as well as heavy truck, aerospace and various industrial sectors.

•           CNC programming experience with Haas, Fidal, Mori Seiki, Mitsubishi (“Live Tooling”) Fanuc.

•           Robotic Programming and Integration of Fanuc, Motoman, and ABB Denso, Adept, Epson Robots.

•           Automated, integrated, and programmed manufacturing lines including communication between machines.

•           Successful Engineer with a background in IT programming, Integration, Project Management, PLC Programming, Machining, ROI’s, Program Management (Alpha phase to production) with an emphasis on IT implementation, Stampings, Software Programming, Design, CNC Machining, Plastic Injection Molding, Rapid Prototyping, Castings, Tubing, Assemblies and Fixtures.

•           Manufacturing includes process engineering, solid modeling, tooling design, cutter paths, set up and product design.

•           Prototyping, tooling, and assembly, as well as component assemblies, such as wire harnesses, safety restraints, brakes, fuel injection, HVAC, frames, seat tracks, energy absorption units, wipers, and window regulators.

•           Engineering management background with an emphasis on manufacturing, engineering, delivery, quality (Kaizan, KANBAN, ISO/QS, Six Sigma, and Lean Manufacturing) and Design, AutoCAD, PRO-E, Mastercam.

•           Past achievements include, closing multimillion dollar contracts Toyota, Ford Motor, General Dynamics, and TACOM.

•           Manufacturing Intelligence Systems - Rockwell Automation Factory Talk, Visual Plant, and Various SAP, ERP and MRP applications.

**Work Experience**

**Tesla Motors – Reno, NV**

Controls Engineer – 12/16 - Present

•           PLC Programming RS Logix 5000

•           Programming Fanuc Robots

•           Programmed Safety Systems – Scanners, Interlocks, Light Curtains

•           Programmed Allen Bradley Vision Systems

•           Programmed Allen Bradley HMI Panelview

**Shiloh Industries – Pendergrass, GA**

Engineering Manager – 8/15 – 12/16

•           Writing new code for PLC

•           PLC Programming (Allen Bradley PLC 5 to RS Logix 5000 and Siemens S7)

•           Programming Fanuc Robots

•           Programming Safety Systems - Gaurdilogix

•           Programmed Environmental Systems – i.e. Alarms, HVAC, CC Cameras, etc…

•           Programmed Sick and AB safety scanners

•           Programmed Allen Bradley HMI Panelview

**Harley Davidson – Menomonee Falls, WI**

Controls Engineer – 2/15 – 8/15 (Contractor)

•           Writing new code for PLC

•           PLC Programming (AB)

•           Programming Fanuc Robots on Gantry Rails 100 to 300 yards in length

•           Programming Safety Systems - Gaurdilogix

•           Programmed Honing Machines Systems for Twin Cylinder Heads

•           Programmed Sick and AB safety scanners

**UPS - Material Handling Systems (**Contractor)

Controls Engineer - 10/14 – 2/15

Programming robot and debugging PLC Code

•           Writing new code for PLC

•           Programmed Sick and AB safety scanners

•           Programmed Conveyors, Sorters and Distribution systems

•           Bar Coding Systems

•           Siemens Simatic HMI Systems

**Tesla Motors - Innovision**(Contractor)

Program Manager/Controls Engineer 6/14 - 10/14

•           Programming robot and debugging PLC Code

•           Writing new code for PLC

•           Programmed Sick safety systems

•           Adjusted programs to fit Panoramic roof to vehicle on Model S

•           Built and programmed SCADA systems

**Fives Cinetic** - (Contractor)

Engineer Manager (11/13 - 6/14)

•           Program Manager, designed and supervised Fluid Fill machine builds

•           Supported design and machine builds on custom equipment by programming PLC’s and HMI’s.

•           Installed Vision Systems and programmed into main program

•           Troubleshoot floor equipment and supported Maintenance Department

•           Maintained equipment and repaired as required. (250,000 sqft)

•           Improved electrical systems and wrote PLC programs to enhance Equipment Optimization.

•           Installed and Programmed Omron Safety Laser scanners

**Mueller Company - Chattanooga, TN**

Engineering Manager 2/13 - 11/13

•           Program Manager - Successfully managed 13 robot cell integrations. Capital Expenditure budget of $13MM

•           24% under budget and 12 months early.

•           Supported, designed and implemented Robotic and PLC’s throughout 500,000 square foot facility.

•          Provided support to production by upgrading and automating systems within Foundry, Lost Foam Department, Machining, Clean Room, Assembly, Engineering, Green Sand Casting, R&D, Testing Facilities, Finishing, and Material Handling.

•          Developed Core Cross Functional Team within Mueller and held meetings each month with several Mueller employees including Mechanical, Industrial, Electrical, and Environmental Engineers. The Core Group also included top management within each plant, Maintenance, Supervisors and EHS departments. Group was created to exchange ideas, develop and assist in managing new projects, as well as tracking successes and failures in order to replicate if successful in other facilities.

•           Designed, automated and managed new robotic powder coating system. Included line tracking software, ABB Industrial robots, PLC control panels directly linked to ERP and MRP systems. HMI’s developed to regulate speed, temperature within various zones determine part types flowing into powder coating system.

•           Researched and prototyped “Fluidized Powder Coating Bed.”

•           Communicated with Sales and Product Development Engineers

•           Design, integrate, maintain and program Kuka, Fanuc Robotics and ABB robots. Complete system integration including Rockwell Factory Talk Software, Cognex and Fanuc Vision Systems, Allen Bradley, Mitsubishi, Rockwell PLC programming, Tooling Design utilizing AutoCAD, Mastercam, Pro-E, and other various CAD software.

•           Foundry environment on the forefront of automating current facilities.

•           Manage large capital expenditures programs, advising Operations Excellence Group and Automating facility.

**American Torch Tip - Bradenton, FL**

Engineering Manager 10/06 - 2/13

•           Designed, built and ran over 1000 plastic injection molding tools.

•           Ran various material resins such as but not limited to PVC, Nylon 66, PE, PPE

•           Managed over 30 robot and vision systems. Full integration, program and design.

•           Successfully Managed over 2500 distributors in the SE and Midwest.

•           Designed and tested various Plasma Torches and Laser Heads

•           Products included Laser, Plasma, MIG, TIG, Thermal Spray and Oxy Fuel consumables to the Automotive Tier One’s, Aerospace, Heavy Equipment and DOD

•           Built Sales up in the Southeast Target Markets by a Net Margin of 35%. Closed on several large contracts with Tier One Suppliers, Heavy Equipment, Aerospace, Industrial, and Large Steel Suppliers.

•           Programmed, integrated, and utilized Fanuc, Motoman, and ABB robots with Vision Systems.

•           Programmed PLC’s including Rockwell, Allen Bradley and Mitsubishi.

•           Increased sales by 45% in Southeastern US in Sales with the Department of Defense, Aerospace, Agriculture, Automotive and Energy Sectors

•           Authored detailed marketing plans including distribution, logistics, and training programs within Sales Departments.

•           Authored and implemented new Management Programs, SWOT analysis, market segmentation and trends.

•           Accountable for procuring and implementing six new product lines.

•           American Torch Tip produces Laser, Plasma, MIG, TIG, and Oxy Fuel Equipment.

**ACE Technologies-Manufacturing Intelligence (Toyota North America) - Georgetown, KY**

Automation Engineer/VP of Engineer 3/03 - 10/06

*Toyota Motors North America, Georgetown, KY - (Camry, Avalon, Solara)*

•           Accomplishments include: $14,000,000 in new contracts with Toyota Motors North America, detailed planning of software architecture, C++, Java, Visual Basics, manufacturing intelligence, data silos, real time data viewing, ERP, MRP, PLC’s, and complete software integration systems through secured web based intranet.

•           Integrated Visual Plant Software throughout Toyota lead team in the processes of Data Extraction, Data Acquisition, Data Archiving, Data Storage and “Real Time” presentation of information.

•           Utilized C++, VB and Java to architect various bridges between software languages.

•           Created HTML’s to present various metrics to Toyota such as Cycle Times, Torque Specs, Paint overspray, utility usage, etc…

•           Integrated “Visual Plant Software” Product Development, Engineering and Programming.

•           Integrated Manufacturing Intelligence Software into Toyota ERP systems.

•           Installed software to gather data from Fanuc Robots, Allen Bradley and Mitsubishi PLC’s to create HMI Human Machine Interface.

•           Engineered, integrated, and implemented “Manufacturing Intelligence Software Systems” to effectively serve Toyota’s Kaizan, Kanban, and Jidoka systems.

•           Established significant ROI based on viewing real time reports back to Operators, Engineers, IT, and Managers.

•           Improved efficiency, cycle times, tool change over, paint systems, energy consumption, and overall Continuous Improvement vital to Toyota NA Georgetown, KY.

•           Critical Leader within ACE by securing contracts with Toyota, Designing Systems, Programming, Hiring and finding the most elite IT Engineers

**North American Industries, LLC - Sterling Heights, MI**

Automation Engineering, Controls and Robotics Specialist/Owner 6/95 - 3/05

•           Manufactured and ran over 500 different plastic injection molding tools including.

•           Designed, built and performed try outs and ran production plastic injection molding tools.

•           production tools were built for cavity to 36 cavity tools.

•           Average production annual volume 10 to 12 million components.

•           Built and ran insert injection molding tools, nitrogen injected parts, overlays.

•           Automated presses with hot gates to trim parts, Vision systems for pick and place and conveyors to streamline processes.

•           Ultrasonic welding of Tail Light assemblies to prevent moisture and corrosion.

•           Built sales into $10MM annually of prototypes per year with Tier One Automotive Suppliers.

•           Relationships include: DaimlerChrysler, Delphi, Visteon, Lear TACOM, General Dynamics.

•           Designed, engineered and manufactured interior and exterior components from Alpha Phase to Launch. Responsibilities included program management and reporting to major OEM’s, Department of Defense and Tier Ones, such as GM, Ford, General Dynamics, TACOM, DaimlerChrysler, Delphi, Visteon, TI Group, Lear, and several others.

•           Authored, implemented, and maintained internal ISO/QS 9000 procedures and documentation manuals and successfully obtained ISO/QS 9000 Certification.

•           Responsibilities included final part design, utilizing AutoCAD, Master cam, and PRO-E system, APQP meetings, SPC, DFMEA, FMEA, PPAP, print verification and sign off, engineering changes and approvals, process engineering, final part approval after CMM inspections, fixtures and gage design and build, third party inspections, tool design and approval, and final production processing system.

•           Patented aluminum and steel coating process to improve longevity of tooling by over 50%.

•           Background in Fidal and Haas CNC Machining, Rapid Prototyping-SLS, SLA, Reaction Injection Molding, SLS, 3D Modeling, Plastic Injection Molding, Stamping, Assembly, Electronics, Robotics, Laser Cutting, Laser Welding, Casting and EDM.

•           Participated in sales and marketing that resulted in increases of thirty percent each year.

•           Fixture Design and Build, Tooling Design and Build, CNC Tooling, Tooling and Mechanical Engineer.

•           Designed and Built Robot and Welding Work Cells.

**General Motors - Warren Tech Center, Warren, MI**

Operations and Robotics Engineering Manager 8/91 - 6/95

•           Successfully managed 38 Engineers and maintained less than 3% turn over in three year period.

•           Designed, installed, and continually improved all facets of manufacturing including CNC steel components, tooling, fixtures, and fabrications.

•           Robotic Cell Design and Project Manager for Cell Build and integration

•           Instituted programs that annually reduced scrap injuries, grievances, and absenteeism.

•           Achievements included, engineering, designing, and manufacturing material transport equipment and racking.

**Ford Motor Company**

Automation and Robotics Engineer **3/86 - 8/91**

•           Supplier Quality Assurance Audits for Certification. Manufactured the Ford Escort at the Wayne Integrated Stamping and Assembly Plant. Daily duties included, managing 80 employees as a Front Line Supervisor, job tracking, attendance reporting, maintenance reports, preventive maintenance, calculating cycle times, and downtime.

•           Designed, installed, and continually improved all facets of manufacturing including CNC steel components, tooling, fixtures, and fabrications.

•           Robotic Cell Design and Project Manager for Cell Build and integration