





<h2 style="color: #e67e22;">Personal details</h2>	<h1 style="color: #e67e22;">Nicholas Baker</h1>																									
<p> Nickbaker64@yahoo.com</p> <p> <a href="https://www.linkedin.com/in/nick-baker-58390b214">Linkedin.com/in/nick-baker-58390b214</a></p> <p> Wilmslow, Cheshire, UK</p> <p> +44 (0)7719268619</p>	<h2 style="color: #e67e22;">Space Systems Engineer</h2> <h3 style="color: #e67e22;">Profile</h3> <p>Systems manager responsible for the space-flight qualification of Solar Array Drive Mechanisms on various scientific programs for ESA. Technical representation in front of Prime and ESA in all technical reviews from PDR through to FRR. Generation of technical documentation to ECSS requirements. Overseeing mechanical, electrical, EMC, assembly, test and PA activities. Supervision of staff.</p> <p>My background covers mainly mechanical design with good experience in electrical, RF, optics, vibration, shock, analysis (stress, modal, thermal) and testing (vibration, shock, TV, friction, Quasi-Static).</p>																									
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<b>Education</b>		<b>Project Engineer (contract) – Didsbury Engineering</b>	<b>Mechanical Eng.</b>
Mechatronics	Diploma	<ul style="list-style-type: none"> <li>Mechanical design and stress analysis of weapons handling systems used on ground and on aircraft carriers</li> </ul>	02/15 – 12/15 Cheshire
Cognitive Robotics	Diploma	<b>Systems Manager/ mechanism specialist (contract) – KDA</b>	<b>Space mechanism</b>
Accounting	RSA 2	<ul style="list-style-type: none"> <li>Technical authority for the space flight qualification of Solar Array Drive Mechanisms used on Copernicus, Solar Orbiter &amp; Exo-Mars scientific spacecraft.</li> </ul>	01/11 – 12/14 Kongsberg Norway
Computer Assisted Manuf	HNC	<ul style="list-style-type: none"> <li>Vibration/ Shock specialist. Design of fixtures. Test/ analysis.</li> <li>Participation in PDR, CDR, TRR, PTR &amp; FRR with ESA/Prime</li> <li>Generation of technical documents to ECSS standard.</li> </ul>	
Mech & Prod'n Engineering	HNC	<b>Mechanical Design Engineer (contract) – General Vacuum</b>	<b>Vacuum Chambers</b>
<b>Courses</b>		<ul style="list-style-type: none"> <li>Design of large vacuum chambers used for the application of a very thin layer of Aluminium or Aluminium Oxide to plastic film for food packaging and fire-retardant clothing</li> </ul>	04/10 – 12/10 Manchester
Modern Project Management		<b>Mechanical Design Engineer (contract) – 360 Vision</b>	<b>Cameras</b>
Business Law (AAT)		<ul style="list-style-type: none"> <li>Design of CCTV camera housings including for use in Hazardous and explosive environments using Pro/E surfacing.</li> </ul>	01/10 – 03/12 Runcorn/ Home
International Trade & Payments (IoE)		<b>Mechanical Design Engineer (contract) – RTS</b>	<b>Robotics</b>
International Physical Distribution (IoE)		<ul style="list-style-type: none"> <li>Design of Laboratory Robots used for the handling of blood saliva and DNA, with storage and retrieval at -20 or -80°C</li> </ul>	05/09 – 12/09 Manchester
Ferranti Technician Apprenticeship		<b>Mechanical Design Engineer (contract) – Magna Powertrain</b>	<b>Engines</b>
Soo Bahk Do 2 <sup>nd</sup> Dan Black Belt		<ul style="list-style-type: none"> <li>Conceptual design of a unique 2-stroke horizontally opposed 5-cylinder diesel aircraft engine with twin wobble plates.</li> <li>Analysis of highly stressed engine components.</li> </ul>	02/08 – 05/09 St Valentin Austria
<b>Languages</b>		<b>Managing Director – Valencia Bathrooms</b>	<b>Retail</b>
English	Native	<ul style="list-style-type: none"> <li>General management of a busy bathroom showroom Including customer sales, interior design, purchasing, installation management, accounts and project management</li> </ul>	05/07 – 2010 Manchester
French	Intermediate	<b>Mechanical Design Engineer (contract) – McCormick Tractors</b>	<b>Agriculture</b>
Mandarin Chinese	Spoken	<ul style="list-style-type: none"> <li>Integration of new diesel engines into the existing tractor range to meet updated emissions requirements.</li> </ul>	12-06 – 05/07 Doncaster
Spanish	Basic	<b>Mechanical Design Engineer (contract) – MAN</b>	<b>Engines</b>
		<ul style="list-style-type: none"> <li>Adaptation of RK270 Marine Diesel Engines for the Chinese Coastguard, working alongside a team of Engineers from Dalian</li> <li>Employment and management of a team of 7 contractors converting imperial drawings to metric, including submission of accounts.</li> </ul>	01/06 – 10/06 Manchester
		<b>Mechanical Design Engineer (contract) – RTS</b>	<b>Robotics</b>
		<ul style="list-style-type: none"> <li>Design of bespoke laboratory robots used to separate and store DNA from blood samples using centrifuges and cameras.</li> </ul>	10/05 – 01/06 Manchester
		<b>Mechanical Design Engineer (contract) – MAN</b>	<b>Engines</b>
		<ul style="list-style-type: none"> <li>Design of various components and sub-assemblies including Castings, machined components, exhaust ducting and pipe-runs for the companies RK270 marine and power generation engines.</li> </ul>	09/04 – 10/05 Manchester
<b>Achievements</b>			
<ul style="list-style-type: none"> <li>Achieved the first Space-Flight qualification in 10-years for KDA (Norway)</li> <li>Helped win an innovation award for a 5-axis flight simulator for the RAF</li> <li>Reduced the design to finished product times by over 200% at Philips through the introduction and integration of Pro/Engineer and Pro/NC, with training of staff.</li> <li>Wrote a program in Pro/Program to automate the design of waveguide assemblies and automatically generate 2D detail drawings in Pro/Engineer</li> <li>Modularised the HPA assemblies at Siemens, reducing design time by over 100%.</li> </ul>			