





<h2>Personal details</h2>	<h1>Nicholas Baker</h1>	
<div>  Nickbaker64@yahoo.com </div> <div>  Linkedin.com/in/nick-baker-58390b214 </div> <div>  Wilmslow, Cheshire, UK </div> <div>  +44 (0)7719268619 </div>	<h2>Mechanical Design Engineer</h2>	
	<h2>Profile</h2> <p>Mechanical Engineer with full life-cycle experience from initial concept through R&D, 3D design, analysis, manufacture support, test, installation and final hand-over, across several industries including Robotics, Sub-Sea, Space, Engines and Automation with many blue-chip companies throughout Europe.</p> <p>A good knowledge of additional disciplines such as RF, Electronics, test, analysis, EMC, QA and Programming, with excellent Technical Document writing skills.</p> <p>Mentoring of less experienced engineers.</p> <p>Seeking: Challenging roles in mechanical design using 3D CAD.</p>	
<h2>Key Skills</h2>	<h2>Employment History</h2>	
<div> <div>Mechanical Eng.</div> <div>● ● ● ● ●</div> </div> <div> <div>Systems Engineering</div> <div>● ● ● ● ●</div> </div> <div> <div>3D CAD</div> <div>● ● ● ● ●</div> </div> <div> <div>Shock/ Vibration</div> <div>● ● ● ● ●</div> </div> <div> <div>RF principals</div> <div>● ● ●</div> </div> <div> <div>Analysis</div> <div>● ● ● ● ●</div> </div> <div> <div>ECSS Document</div> <div>● ● ● ● ●</div> </div> <div> <div>Hydraulics</div> <div>● ● ● ●</div> </div> <div> <div>EMC</div> <div>● ● ●</div> </div>	<div> <div> Mechanical Design Engineer (contract) - INEOS </div> <div> <ul style="list-style-type: none"> Manufacturing support – design of various jigs and fixtures for welding, laser welding and material handling. Modal, stress, thermal (dynamic and static) analysis. </div> <div> Manufacturing 04/24 – 03/25 Runcorn </div> </div>	
<h2>Main Industry Exp.</h2> <div>Space</div> <div>Robotics</div> <div>Automation</div> <div>Engine design</div> <div>Satellite Communications</div>	<div> <div> Mechanical Design Engineer (contract) - Ashtead Technology. </div> <div> <ul style="list-style-type: none"> Mechanical & Hydraulic design & analysis of sub-sea lifting equipment for underwater recovery operations. </div> <div> Sub-Sea 09/23 – 03/24 Home/ Aberdeen </div> </div>	
	<div> <div> Principal Mechanical Engineer - MRT Ltd. </div> <div> <ul style="list-style-type: none"> Mechanical & mechatronic design of a fully autonomous self-charging robot that removes algae from a ship hull whilst the ship is in operation, reducing fuel consumption and down-time. Design of mechanism including a planetary gearbox. </div> <div> Robotics 01/23 – 06/23 Home/ Malta </div> </div>	
	<div> <div> Mechanical Design Engineer (contract) – 3-Sigma Designs </div> <div> <ul style="list-style-type: none"> Conceptual design of sub-sea robot for MRT Ltd. Design of a full, modular, suite of hospital storage solutions. Design of a high-end personal sanitary disposal unit. </div> <div> Mechanical Design 01/21 – 12/22 Home base </div> </div>	
	<div> <div> Principal Mechanical Engineer – Kleos Space </div> <div> <ul style="list-style-type: none"> Project management of two space R&D projects for the Luxembourg Government and mentoring junior staff. Development of in-space CFRP pultrusion mechanism Development of geolocation techniques including TDoA and FDoA to combat illegal shipping and piracy. </div> <div> Space R&D 09/18 – 11/20 Luxembourg </div> </div>	
	<div> <div> Design Manager – Adelphi Automation </div> <div> <ul style="list-style-type: none"> Concept design of automation systems for robotic welding, materials handling, and assembly for customer approval. Design of a fully automated manufacturing suite including material storage and retrieval, laser cutting, bending and welding. Design of robotic welding and machining systems. </div> <div> Automation 06/17 – 09/18 Manchester </div> </div>	
<h2>Analysis</h2> <div> <div>Modal</div> <div>● ● ● ● ●</div> </div> <div> <div>Vibration</div> <div>● ● ● ● ●</div> </div> <div> <div>Stress</div> <div>● ● ● ●</div> </div> <div> <div>Thermal (Static)</div> <div>● ● ● ●</div> </div> <div> <div>Thermal (Dynamic)</div> <div>● ● ●</div> </div>	<div> <div> Space Engineer (contract) – OIP Sensor Systems </div> <div> <ul style="list-style-type: none"> Design of high precision space optical assemblies and test equipment for PROBA satellites. Modal, Quasi-Static and Dynamic thermal analysis. Vibration testing and analysis of optical assemblies. </div> <div> Space Optics 06/16 – 04/17 Oudenaarde Belgium </div> </div>	
	<div> <div> Mechanical Design Engineer (contract) - EDM </div> <div> <ul style="list-style-type: none"> Mechanical Design and Analysis of 5-axis F35 flight simulator which achieved an innovation award. Visualisation renderings for customer. </div> <div> Flight Simulators 02/16 – 06/16 Manchester </div> </div>	

Education		Project Engineer (contract) – Didsbury Engineering <ul style="list-style-type: none">Mechanical design and stress analysis of weapons handling systems used on ground and on aircraft carriers	Mechanical Eng. 02/15 – 12/15 Cheshire
Mechatronics	Diploma	Systems Manager/ mechanism specialist (contract) – KDA <ul style="list-style-type: none">Technical authority for the space flight qualification of Solar Array Drive Mechanisms used on Copernicus, Solar Orbiter & Exo-Mars scientific spacecraft.Vibration/ Shock specialist. Design of fixtures. Test/ analysis.Participation in PDR, CDR, TRR, PTR & FRR with ESA/PrimeGeneration of technical documents to ECSS standard.	Space mechanism 01/11 – 12/14 Kongsberg Norway
Cognitive Robotics	Diploma		
Accounting	RSA 2		
Computer Assisted Manuf	HNC		
Mech & Prod'n Engineering	HNC		
Courses		Mechanical Design Engineer (contract) – General Vacuum <ul style="list-style-type: none">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	Vacuum Chambers 04/10 – 12/10 Manchester
Modern Project Management		Mechanical Design Engineer (contract) – 360 Vision <ul style="list-style-type: none">Design of CCTV camera housings including for use in Hazardous and explosive environments using Pro/E surfacing.	Cameras 01/10 – 03/12 Runcorn/ Home
Business Law (AAT)		Mechanical Design Engineer (contract) – RTS <ul style="list-style-type: none">Design of Laboratory Robots used for the handling of blood saliva and DNA, with storage and retrieval at -20 or -80°C	Robotics 05/09 – 12/09 Manchester
International Trade & Payments (IoE)		Mechanical Design Engineer (contract) – Magna Powertrain <ul style="list-style-type: none">Conceptual design of a unique 2-stroke horizontally opposed 5-cylinder diesel aircraft engine with twin wobble plates.Analysis of highly stressed engine components.	Engines 02/08 – 05/09 St Valentin Austria
International Physical Distribution (IoE)		Managing Director – Valencia Bathrooms <ul style="list-style-type: none">General management of a busy bathroom showroom Including customer sales, interior design, purchasing, installation management, accounts and project management	Retail 05/07 – 2010 Manchester
Ferranti Technician Apprenticeship		Mechanical Design Engineer (contract) – McCormick Tractors <ul style="list-style-type: none">Integration of new diesel engines into the existing tractor range to meet updated emissions requirements.	Agriculture 12-06 – 05/07 Doncaster
Soo Bahk Do 2 nd Dan Black Belt		Mechanical Design Engineer (contract) – MAN <ul style="list-style-type: none">Adaptation of RK270 Marine Diesel Engines for the Chinese Coastguard, working alongside a team of Engineers from DalianEmployment and management of a team of 7 contractors converting imperial drawings to metric, including submission of accounts.	Engines 01/06 – 10/06 Manchester
Languages		Mechanical Design Engineer (contract) – RTS <ul style="list-style-type: none">Design of bespoke laboratory robots used to separate and store DNA from blood samples using centrifuges and cameras.	Robotics 10/05 – 01/06 Manchester
		Mechanical Design Engineer (contract) – MAN <ul style="list-style-type: none">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.	Engines 09/04 – 10/05 Manchester
		Achievements	
		<ul style="list-style-type: none">Achieved the first Space-Flight qualification in 10-years for KDA (Norway)Helped win an innovation award for a 5-axis flight simulator for the RAFReduced 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.Wrote a program in Pro/Program to automate the design of waveguide assemblies and automatically generate 2D detail drawings in Pro/EngineerModularised the HPA assemblies at Siemens, reducing design time by over 100%.	