

Maker Name	Brief Description
1	<p data-bbox="185 190 395 293">AJBOX – Amazing Unique Mechanical Marvels</p> <p data-bbox="411 190 1251 376">AJBOX – Amazing Unique Mechanical Marvels design and make a wide range unique laser cut mechanisms, many of them just the size of a credit card. Previous makes have included working catapults, boats, crossbows, roller coasters and cam mechanisms.</p> <p data-bbox="411 427 1251 577">They'll be talking visitors through their creations, and how they go from hand sketches, to the finished product. There will also be a chance to buy some of these clever creations during the weekend.</p> <p data-bbox="411 629 1031 658">Find out more: www.etsy.com/uk/shop/AJBOX</p>
2	<p data-bbox="185 669 373 734">AttinyArcade DIY game kit</p> <p data-bbox="411 669 1182 741">Take part in a one-on-one soldering workshop and build an AttinyArcade DIY game kit.</p> <p data-bbox="411 792 1182 857">Find out more: http://webboggles.com/attiny85-game-kit-assembly-instructions/</p> <p data-bbox="411 869 711 898">Twitter: @webboggles</p>
3	<p data-bbox="185 909 357 938">Collide-O-Scope</p> <p data-bbox="411 909 1251 1059">Collide-O-Scope is an interactive box of visual confusion! Those who are brave enough to insert their hands into the box will be presented with a captivating vision of a rotationally symmetric mini-landscape.</p> <p data-bbox="411 1111 1251 1218">Previously, Collide-O-Scope has been to music festivals all over the country, where it has been loved by a diverse audience; from drunken adults to curious children!</p> <p data-bbox="411 1270 1158 1299">Find out more: www.naren.co.uk/index.php/insert-hands</p>
4	<p data-bbox="185 1312 400 1415">Cuneifun – exploring archaeology through art</p> <p data-bbox="411 1312 1251 1500">Join participatory artist Christopher Folwell to explore ancient writing techniques and relief printmaking in a free, hands-on arts workshop. All of the family can learn how primitive writing evolved, and have a go at making a clay tablet or printing block of their own in cuneiform (wedge-shaped) script.</p> <p data-bbox="411 1552 1251 1617">Works by Christopher, inspired by the subject matter, will be on display and sale alongside this workshop.</p> <p data-bbox="411 1668 948 1697">Find out more: www.dabbledabble.co.uk</p> <p data-bbox="411 1749 751 1778">Twitter: @Dabble_Dabble</p>

5	<u>Deer Shed Festival</u>	<p>Make sound wave art through a series of hands-on activities, and explore the ways in which sound waves can be harnessed and manipulated to generate pictures and patterns. By changing the amplitude and frequency of sound waves, you can create exciting, complex patterns in materials such as sand, flour, corn-starch and water. Experiment with different levels and create something beautiful!</p> <p>Find out more: http://deershedfestival.com/science/</p> <p>Twitter: @DeerShed</p>
6	<u>Evancliffe Leathercraft</u>	<p>See examples of handcrafted leather goods and have a go at this traditional skill with experts from Evancliffe Leathercraft. They'll guide you through a Leather Stamping Workshop*, where you can use the provided stamps to create your own unique leather wristband, keyring or bookmark, which can then be dyed a colour of your choice.</p> <p>*A small additional charge applies for this activity.</p> <p>Find out more: www.evancliffeleather.co.uk</p>
7	<u>Fire Tech</u>	<p>Fire Tech encourages 9 – 17 year olds to get coding! Younger visitors can program Ozobots to follow their commands, do calculations, and generally booty shake, and older visitors can code Kano Pixels to animate LED matrices and make music.</p> <p>Find out more: www.firetechcamp.com</p> <p>Twitter: @FireTechCamp</p>
8	<u>InMoov 3D Printed Humanoid Robot</u>	<p>Meet InMoov, a full-sized, 3D printed humanoid robot. InMoov is fully interactive, with motion, speech and vision capabilities, and can respond to gestures, sound, people and objects. It was designed by French sculptor and designer, Gael Langevin – who made the design and software for the robot open source – so anyone can create their own InMoov (with the right tools!).</p>
9	<u>Institute of Physics North East Branch</u>	<p>Meet members of the North East Branch of the Institute of Physics and enjoy hands-on experiments. Previous experiments have included expanding marshmallows, making kazoo's and crafting squishy electrical circuits, and this year promises even more physics-related fun!</p>

10	Kimoci	<p>Learn the art of glass making with Kimoci. Using specialist fusing glass, frits, metal and other inclusions, visitors will be able to make a small fused glass piece that could then be used as a fridge magnets, pendant, light catcher or brooch.</p> <p>Pieces made on the day will be taken away to be fired and then will be posted off to their owners within the month.</p> <p>Kimoci is a partnership of two artists, Kathy Geater and Cate Blatherwick who are makers and educators working with glass.</p> <p>Please note – there is an additional charge for this activity, ranging from £5 – £10. Jewellery fittings are not included in this workshop.</p> <p>Find out more: www.facebook.com/kimociglass</p>
11	Las Makers	<p>Las Makers will be running workshops based on waste fabric and textiles. Using wooden frames and shapes to weave in to, one big tactile textile will be created over the Maker Faire weekend.</p> <p>A variety of other crafts will also be available, including crochet and embroidery.</p> <p>Find out more: www.zoepowell.com/project/deptford-x-2013-textile-workshops/</p> <p>Twitter: @ZoeGPowell</p>
12	MadLab	<p>Ever wanted to solder? Learn how in this hands-on workshop and make your own electronic gadget to take home. Choose from cute little aliens with colourful eyes, flashing robot badges, or the more ambitious burglar alarms and lie detectors.</p> <p>Find out more: www.madlab.org</p> <p>Twitter: twitter.com/clubmadlab</p>

13	<u>Maker Space North East</u>	<p>Maker Space North East is a community owned and run workshop in Newcastle upon Tyne, comprised of an eclectic group of makers, creatives, programmers, scientists and engineers. It's a space to meet, work, socialise, share ideas and collaborate.</p> <p>They will be offering top tips to budding Makers and showcasing some of their most exciting member projects, including: Marty the cute 3D printed robot, an electric longboard, a wind tunnel, portable CNC Mill and an interactive reaction.</p> <p>Find out more: www.makerspace.org.uk</p>
14	<u>Mission Control Lab</u>	<p>Mission Control Lab offer monthly design engineering kits for kids. They'll be running a workshop to create a layered sticker and chatting to visitors about their kits.</p> <p>Find out more: http://missioncontrollab.com</p>
15	<u>Passa Passa</u>	<p>Exterminate! Passa Passa will be showing off their moving Dalek, offering the perfect photo opportunity for all Dr Who fans. They'll also be sharing the secret to building your own Dalek, and demonstrating a range of voice changing helmets featuring other Dr Who characters for visitors to try out.</p>
16	<u>Red Robotics</u>	<p>After making an appearance at Maker Faire UK 2017, SoccerBotz are back and better than ever!</p> <p>Grab, tackle and shoot your way to victory with these Raspberry Pi powered football robots. With the newly designed mechanism at the front of the robot you can grab and control the ball, then try to weave your way through the defence and shoot towards the goal. But watch out! If a robot from the other team hits your side tackle bars you'll lose control of the ball and have to try to grab it back again.</p> <p>New for this year, they also have Antbots, tiny, 3D printed, 4 wheel drive robots, which are seriously fast and fun!</p> <p>SoccerBotz will be running free drop-in coding and building workshops, where you can learn to build and program their robots, with no previous experience needed.</p> <p>Find out more: http://redrobotics.co.uk</p> <p>Twitter: @NeilRedRobotics</p>

17	TechTribe.UK	<p>TechTribe.UK are passionate about making new technologies accessible to all, so they'll be giving everyone a chance to get hands-on at Maker Faire UK. Try your hand at coding, digital design and 3D printing and learn more about the basics of virtual reality by adding to a virtual world.</p> <p>Different activities will run at different times throughout the day, so make sure to check their schedule to see what's on.</p> <p>Find out more: www.techtribe.uk</p> <p>Twitter: @TechTribeUK</p>
18	The Blind Soapmaker	<p>Meet The Blind Soapmaker and see their hand-crafted range of luxury solid and liquid soaps, and bath bombs too!</p> <p>Find out more: www.theblindsoapmaker.co.uk</p>
19	The Human Spaceship: Fashion	<p>With the new era of 21st century human spaceflight and possible colonisation of moons and planets, what will we wear in space?</p> <p>The Human Spaceship will feature fantastical fashion, with a series of four costumes inspired by gravity, satellite technology, spacecraft and the Moon. These out-of-this-world outfits will also include Smart Materials and light reactive elements, which react when flash-photographed by a smart phone.</p> <p>There will also be a series of small models, fashion designs and related scientific documents and images on hand, as well as expert advice and discussion from the designer.</p> <p>Find out more: thenewbridgeproject.com/portfolio/helen-schell</p>
20	The Sludgy Stuff Engineering Roadshow	<p>Join the Sludgy Stuff and learn how to make air-dry clay out of PVA glue and cornflour. You'll also be able to test your clay, exploring how the ingredients and recipe affect the end result.</p> <p>You'll be able to take you clay home with you too, as well as a leaflet with more clay 'recipes' and other 'sludgy' experiments to try!</p> <p>Find out more: http://bionanostrath.wixsite.com/reallysmallscience</p> <p>Twitter: @RSmallScience</p>

21	TwistingSpace	<p>These Giant Suspended Marble Runs are made from culled rhododendron, which would otherwise have been left to rot or taken to the dump. By repurposing these branches, a twisty, tricky marble run is born.</p> <p>Your challenge is to get the marble successfully through the run. Be careful, too fast and it will fly off, too slow and it will block the other marbles behind it!</p> <p>Once you've mastered the marble challenge you can try your hand at building your own marble run, using smaller structures and rhododendron pieces.</p> <p>Find out more: www.twistingspace.com</p> <p>Twitter: @MrTwistingSpace</p>
22	4-Mation: A modular 3D Zoetrope Kit	<p>The zoetrope was one of the earliest forms of motion picture, and 4-Mation have brought it into the 21st century with their 3D zoetrope machine – featuring swappable 3D printed animation wheels. They've been a big hit at Maker Faires in New York and Denver, and are sure to create a buzz in Newcastle once they arrive!</p> <p>Visitors will get the chance to play with the animation control app, and see the mesmerising 3D zoetrope machine in action.</p> <p>Find out more: http://4-mation.co.uk/</p> <p>Twitter: @4dashmation</p>
23	Arrow Electronics	<p>Arrow is a distributor of all kinds of electronic products, from microprocessors to connectors, power supplies and electro-mechanical parts – everything you need to develop any kind of electronic devices.</p> <p>They'll be presenting demos based on boards that they have developed and boards from their suppliers as well.</p> <p>Find out more: www.arrow.com/maker</p> <p>Twitter: @Arrow_dot_com</p> <p>Arrow Electronics are a Gold Supporter for Maker Faire UK 2018.</p>

24	<u>Axminster Tools & Machinery</u>	<p>Experts from Axminster Tools & Machinery will be giving practical demonstrations of some of their latest kit.</p> <p>Get involved and try out the latest tools and machinery. They'll also be on hand to offer professional advice to budding makers, DIY newbies and those looking to learn a new skill.</p>
25	<u>Colin Furze</u>	<p>YouTube filmmaker, inventor and record breaker, Colin Furze, will be heading to Maker Faire UK 2018.</p> <p>A former plumber, Colin now creates amazing inventions and world record-breaking vehicles from the un-safety of his shed.</p> <p>See a range of his weird and wonderful inventions, including the hoverbike, ejector bed, record-breaking mobility scooter, flame-throwing guitar and X-Men inspired Wolverine claws and magnetic Magneto shoes.</p> <p>Find out more: www.youtube.com/user/colinfurze</p> <p>Twitter: @colin_furze</p>
26	<u>Constellation Umbrella</u>	<p>See an umbrella that can be used to find and identify constellations, stars, and other celestial bodies – just by pointing it at the sky! The celestial coordinates of where the umbrella is pointing are calculated using data from a GPS receiver and an inertial measurement unit fitted to the umbrella.</p> <p>Find out more: https://partfusion.com/</p> <p>Twitter: @PartFusion</p>

27	<u>DesignSpark Maker Village, supported by RS Components</u>	<p>Visit DesignSpark's Maker Village, which will be showcasing some of their favourite projects created by their maker community.</p> <p>Don't miss your chance to take the controls in your own robot battle, with the purpose built Robot Battles arena (watch out for the house robots!).</p> <p>Robot Wars judge and DesignSpark blogger Dr Lucy Rogers will be on hand to discuss the Guild of Makers, too.</p> <p>You'll also be able to find out how you can join their community of over 650,000 makers and engineers – and be able to gain access to their free professional CAD software, tools and resources to help take your ideas to the next level, and become a true Super Maker!</p> <p>Find out more: https://uk.rs-online.com</p>
28	<u>DoES Liverpool – Play the Tree</u>	<p>Play the Tree is an interactive game that consists of a large number of baubles, with neopixels that can be controlled remotely. The lights are activated via a pressure sensor – play the game correctly, and watch the baubles light up!</p> <p>Find out more: https://mcqn.com/posts/play-the-tree-behind-the-scenes/</p>
29	<u>Dualo</u>	<p>It doesn't matter whether you're an accomplished musician or don't have a musical bone in your body; pick up Dualo and have a go at making sweet music. Dualo is a brand new, portable musical instrument that allows you to choose between the sounds of a wide range of different instruments, play, record and customise your sound. Its intelligent notes layout groups harmonious sounds together as you play so even the most tone-deaf can create a pleasing melody. Music, maestro, please!</p> <p>Find out more: https://dualo.org</p> <p>Twitter: @dualoinstru</p>
30	<u>Durham Guild of Spinners, Weavers and Dyers</u>	<p>Ever wanted to learn to weave? Now's your chance, as the Durham Guild of Spinners, Weavers & Dyers will be demonstrating both spinning and weaving at Maker Faire UK, with the chance to get hands on with peg looms, tapestry looms as well as wet felting. There will also be displays of work from the Guild members.</p> <p>Find out more: www.durhamguild.com</p>

31	<u>Greeblies</u>	Greeblies transform ordinary objects such as waste bins, floor matting, baubles and even paper into much cooler stuff, including Warhammer armour and a Dalek! They're offering the chance to meet their creation, a working Dalek, and you can also try on a giant slate monster costume.
32	<u>Grumpy Mike's Electro Gadgets</u>	<p>Grumpy Mike specialises in interactive projects, and has a whole host on offer for this year's festival!</p> <p>Fancy being a director? Using an iPad, you can stage your own cut out theatre production of Little Red Riding Hood by remote control. Create a masterpiece as you control the curtain, backdrops, props and characters, all via a touch screen controller.</p> <p>You can also get stunning art from everyday objects by arranging your own kaleidoscope images in real time, and don't miss the chance to play a brand new electronic instrument and create your own music.</p> <p>Twitter: @Wee_Grumpie</p>
33	<u>Guild of Makers</u>	<p>Learn more about the Guild of Makers and exactly why Makers need a professional organisation. They will also be displaying the work of some of their Guild members.</p> <p>Find out more: www.guildofmakers.org</p> <p>Twitter:</p> <p>@GuildOfMakers</p> <p>@DrLucyRogers</p>
34	<u>House of Objects</u>	<p>House of Objects is a creative recycling centre, which collects waste from local businesses for children to transform into something more imaginative.</p> <p>Step in to their Invention Sheds and discover a space filled with a workbench, hand tools, making equipment and shelving, with organised collections of reclaimed recycled materials. Their specialist 'sheducators' will be on hand to support you as you create your own inventions from waste materials. There will also be displays of inspirational creations made from waste, to spark your imagination.</p> <p>Find out more: http://houseofobjects.org/</p> <p>Twitter: @_HouseOfObjects</p>

35	Konichiwakitty	<p>Learn about wearable tech and be inspired by Konichiwakitty and her range of wearable fashion technology, including floral crowns, bracelets, earrings and full outfits. She'll be talking visitors through her creations and offering top tips for getting started with wearable fashion tech.</p> <p>Find out more: https://twitter.com/konichiwakitty</p>
36	Mars / Moon / Sun visual gravity simulator	<p>See how differently a ball will bounce on Earth, Mars, the Moon and the Sun with this visual gravity simulator.</p> <p>Comprised of a vertical five-metre length of NeoPixels, a physical model of gravity, air resistance, and bounce efficiency is used to drive colourful lights (representing bouncing balls) up and down, showing the level of bounce achieved.</p> <p>Multiple "balls" can be launched onto the array at the same time so you can see a colourful comparison of a ball bouncing on Earth against a ball bouncing on Mars. Use the control panel to control the balls and see how the bounce factor is altered in different atmospheres!</p>
37	Matt Bradshaw	<p>Matt will be displaying and playing his weird and wonderful musical instruments, including a guitar-synthesizer hybrid called Bjarkardottirs, alongside a few other smaller 'sound toys'.</p> <p>They'll be playable by anyone who wants to have a go, and Matt will be giving performances too.</p> <p>Find out more: www.mattbradshawdesign.com</p> <p>Twitter: @robotswans</p>
38	Mclaren Clockwork Submarines	<p>Mclaren Clockwork Submarines turns bits of old junk – from tin cans and broken clocks to parts from old washing machines – into deep-diving clockwork submarines that will last a lifetime. Intricate and reliable clockwork mechanisms remove the need for battery or other power, and the use of only simple hand tools in the construction process ensures that the vessels retain a trace of the Maker's hand at work.</p> <p>As well as submarines, Mclaren also produce the odd surface vessel – miniature ships and boats propelled by steam power.</p> <p>Find out more: www.mclarenclockworksubmarines.com</p>

39	<u>micro:bit RGB LED Cube</u>	<p>Code the cube! With the interactive micro:bit RGB LED Cube, you can design your own patterns and colours, as well as play games including 3D Snake and 3D Pac-Man.</p> <p>Find out more: https://lorrainbow.wordpress.com/cube</p>
40	<u>Modpod</u>	<p>Modpod is an ongoing project to create a low cost, modular structure that can be assembled with little to no construction skills, minimal tools and added to over time. Basically, Modpods are pop-up buildings!</p> <p>They will be bringing a 1/6 scale model of the self-build structure, as well as a VR system for visitors to explore the exterior and interior of the building in virtual reality.</p>
41	<u>Northumbria University – Faculty of Engineering and Environment</u>	<p>Members of the Faculty of Engineering and Environment will be demonstrating their research work in several areas, as well as some student projects, including visible light communications, 3D scanning and prototyping and more.</p> <p>Look out for their fibre optic microphone and desktop wind turbines!</p> <p>Find out more: www.northumbria.ac.uk/about-us/academic-departments/mathematics-physics-and-electrical-engineering</p>
42	<u>Pirograph</u>	<p>Pirograph generates evolving geometrical art, using networked colour-changing light bricks. Add your own modifications to your brick, place it on the image table and add your design to the ever-changing light pattern generator.</p> <p>Control panels allow the lights to change, pulse, and animate, while mechanisms on the table move the light bricks around the space. All of which comes together via the image processing to produce a beautiful, ever-changing, Spirograph-like pattern.</p> <p>Find out more: https://nustem.uk</p> <p>Twitter: @nustem_uk</p>
43	<u>piZynth</u>	<p>PiZynth will be showing their small Raspberry Pi enabled musical keyboards and guitar electronic effects pedals projects. As well as their Raspberry Pi Retro Arcade system and RC2014 Retro Computing project.</p>

44	RD4 Printer	<p>The RD4-Printer is a new printer that is capable of printing multiple materials. An exciting functioning prototype of the printer will be on display at Maker Faire UK. Watch the RD4 in action as it prints a watch, and see the possibilities held in this innovative piece of tech.</p> <p>Find out more: www.rd4-printer.com</p> <p>Twitter: @RD4_Printer</p>
45	Rejig – Meet, Make, Mend	<p>Try out creative hands-on sewing, making and recycling with Rejig.</p> <p>They'll be offering drop-in sessions with both vintage hand crank and electric sewing machines set up and ready to use, and will also provide equipment, materials, instructions and support for using the different sewing machines along with demonstrations of stitching, mending and upcycling ideas.</p> <p>The stand will also offer large tubs of interesting and colourful recycled fabrics to experiment with and for making items to take home.</p> <p>Rejig is a community based sewing and recycling project and runs weekly and monthly sessions to encourage everyone, regardless of age or ability, to learn new skills to make, mend or, recycle something completely new from unwanted clothing and other textiles.</p> <p>Find out more: www.luckyfisharts.co.uk</p> <p>Twitter: @Rejig13</p>
46	SkyOne 3D printer – Smart Motor Devices	<p>See the new “SkyOne” 3D printer from ORLIN technology and their Estonian partner, Smart Motor Devices. The SkyOne is a professional, high quality 3D printer, which can also be fitted with a milling or engraving head, allowing it to become a precision CNC micro-milling machine.</p> <p>SMD will also be displaying a range of motors, drivers and linear axes for those who would prefer to build their own 3D printer or CNC machine.</p> <p>Find out more: http://smd.ee/3d-printer.htm</p> <p>Twitter: @ORLINTech</p>

47	<u>Smart Lanterns and The Internet of Curious Things</u>	<p>Build a light-up, colour-changing lantern to visualise data with Smart Lanterns and The Internet of Curious Things.</p> <p>They're also offering visitors the chance to code and assemble sensors that measure air quality, temperature and other environmental data, to turn Newcastle into an ad-hoc smart city.</p> <p>Find out more: www.digitalcreativity.foundation/blog</p> <p>Twitter: @FDNdigicreate</p>
48	<u>Superpants</u>	<p>These curious engineers have been playing with ways to integrate light into the fabric of their house. They'll be showcasing a range of practical and eye-catching projects, including: a light up staircase, a WiFi controlled light wall, fibre optic furniture, a star floor and even some wearable tech – programmable trousers!</p> <p>They will also be showcasing upcycled projects made from industrial scrap and a some replica props projects, including a fully functional Tron Legacy light suit, complete with electroluminescent lighting.</p> <p>Find out more:</p> <p>www.superpants.net</p> <p>www.instructables.com/id/Build-a-star-floor</p>
49	<u>Suzanne Jewellery</u>	<p>Suzanne individually makes glass beads, buttons, flowers, baubles and jewellery by hand, using a technique known as lampworking – the art of melting glass rods in the flame of a torch to make small objects. See Suzanne at work and learn more about her delicate craft. She'll also have pieces of work available to buy.</p> <p>Find out more: www.suzannejewellery.co.uk</p> <p>Twitter: @SuzanneJeweller</p>
50	<u>The Laser Garden</u>	<p>The Laser Garden is a technology-influenced art project by Edinburgh-based designer Johnathan Elders. Experience eerie, laser-based artworks which use a special frame to reflect low-powered green lasers, creating highly visible light sculptures. The result is that the laser effectively 'draws' out the sculpture, creating a piece of art which can be seen, but not touched.</p> <p>Find out more: https://thelasergarden.com</p>

51	<u>Trish Turnbull Designs</u>	<p>Trish will be leading two fifteen minute taster workshops for visitors to choose from. Learn the traditional hooky and proggly method for making mats and other items from recycled materials, or create a piece of enamel jewellery by burning designs on to metal and wood.</p> <p>She will also be selling some of her finished pieces.</p> <p>Please note – a small charge applies to these activities.</p> <p>Find out more: https://1.cargocollective.com/designedbytrishturnbull</p>
52	<u>Waterlight Graffiti</u>	<p>An interactive work of art using a canvas made up of thousands of LEDs (spread over a surface that's 6 metres wide and 1.2 metres tall) that are illuminated by applying water! Grab a wet sponge or brush and draw with light. The wetter the LEDs get, the brighter they will shine.</p> <p>Twitter: @waterlightgraff Waterlight Graffiti © created by Antonin Fourneau</p>
53	<u>York Hackspace</u>	<p>A northern maker space brewed with Yorkshire electricity and lasers, York Hackspace will be bringing starship disaster simulations and reconstructions of historic milestones of computing. Print a name banner on the computer your Dad remembers!</p> <p>Find out more: https://york.hackspace.org.uk/blog/</p> <p>Twitter: @yorkhackspace</p>
54	<u>Abx Labs</u>	<p>Browse and buy a whole range of electronic bits and bobs to help you in your budding Maker activities.</p> <p>Twitter: @abxlabs</p>
55	<u>BA (Hons) Modelmaking at Arts University Bournemouth</u>	<p>Meet members of the BA (Hons) Modelmaking from Arts University Bournemouth to check out their latest creations, get tips and advice and find out more about the course.</p> <p>Find out more: aub.ac.uk/courses/ba/ba-modelmaking</p> <p>Twitter: twitter.com/bmakersBH</p>

56	Binary Candy	<p>Binary Candy is a fun, interactive game that challenges visitors for successfully using binary numbers to unlock a reward from the marble run contraption. The project is designed to be accessible to all ages and abilities, from experts to the youngest visitors.</p> <p>The project was inspired by marble runs, the board game Downfall and binary numbers, and the objective is for visitors to experience how binary numbers relate to their decimal number counterparts, in a way that's engaging and fun.</p> <p>Find out more: www.timwappat.info/codeitmakeit/category/Binary-Candy</p> <p>Twitter: @TimWappat</p>
57	CANDO / Newcastle University	<p>Find out more about Newcastle University's CANDO project, which aims to develop a new implantable therapeutic technology to treat epilepsy by using optogenetics.</p> <p>Get hands-on and produce your own light up neurons and optogenetic-themed pictures using batteries, copper tape and LED stickers, as you learn more about this cutting edge science. You will also get the chance to see examples of early CANDO prototypes.</p> <p>Find out more: www.cando.ac.uk</p> <p>Twitter: twitter.com/candoncl</p>
58	Dinkydoodle Designs	<p>Dawn from Dinkydoodle Designs creates amazing novelty cakes that move – she's made cakes with flying wizards on broomsticks, life-like owls who come to life and even car cakes you can drive around!</p> <p>Visit her stand to see some of her cakes, find out how she safely puts electronic elements and mechanisms into cakes and how she uses air-brushing techniques to create realistic designs – then have a go at using the airbrush yourself.. and maybe even make some of her magical cakes move!</p> <p>Find out more: www.dinkydoodle.co.uk</p> <p>Twitter: @Dinkydoodlecake</p>

59	<u>Glasgow Makers and Hardware Hackers</u>	<p>Meet a friendly bunch of Glasgow-based Makers to chat about their organised meet-ups, get tips and see demos of a range of different projects created by their members.</p> <p>Find out more: www.facebook.com/groups/GlasgowMakersAndHardwareHackers/</p> <p>Twitter: twitter.com/@glasgow_makers</p>
60	<u>Institution of Civil Engineers North East: Build a Bridge</u>	<p>Help to build a bridge at Maker Faire UK 2018 – 90 years after the Tyne Bridge was opened, in 1918.</p> <p>Institution of Civil Engineers (ICE) North East will be bringing a 13 metre cable-stayed bridge kit – for visitors to build, walk across and deconstruct, and to learn about civil engineering.</p> <p>ICE have been delivering a programme called Bridges to Schools in the North East since 2012, with the aim of inspiring and motivating younger students to take up a career in science or engineering fields.</p> <p>Find out more: www.ice.org.uk</p> <p>Twitter: @ICE_engineers</p>
61	<u>Leeds Hackspace</u>	<p>Leeds Hackspace will be showing off their Uberdisplay, a triplet of LED panels that have been re-engineered into high-performance light-show panels, well beyond their original capability. Combining both interactivity and motion displays, Uberdisplay is designed to demonstrate what the older hardware is capable of. They will be demoing the Uberdisplay at Maker Faire UK, and running an interactive thermal imaging demo for visitors to take part in.</p> <p>Find out more: https://wiki.leedshackspace.org.uk/wiki/Projects/Big_Ass-LED_Display</p>

62	Making Useful Stuff (Open Lab at Newcastle University)	<p>Making Useful Stuff is a PhD research project in Digital Civics at Open Lab (Newcastle University), exploring how Making can be made more inclusive, accessible and available to the wider public.</p> <p>They will be running an interactive workshop, showing visitors how to create their own capacitive touch sensor electrodes from their favourite materials. Apart from paper, wool and silk clay, they will also be bringing along conductive ink, a 3D doodle pen and a 3D printer.</p> <p>They will also be exhibiting some of the most exciting projects that they've been involved in and offering a platform for the Makers behind these remarkable projects to present their amazing work themselves.</p> <p>Twitter: @MakeUsefulStuff</p>
63	Monstruitos	<p>This Maker can no longer attend Maker Faire 2018. Apologies for any disappointment caused.</p> <p>See our Headline Makers and 2018 Makers pages for the full list of confirmed Makers.</p>
64	MSRaynsford.co.uk	<p>I'll be showcasing a selection of moving cakes, including BB-8 and BB-9E droid cakes and a remote-controlled car cake.</p> <p>Find out more: msraynsford.blogspot.co.uk/search/label/Cakes</p> <p>Twitter: twitter.com/msraynsford</p>
65	North East Creative Crafts	<p>North East Creative Crafts will be demonstrating their crafty skills and have 'make and take' sessions, where visitors can sew their own monogrammed notebook.</p> <p>They'll be available to chat to visitors about other creative classes available through Gateshead Learning Skills too – including pottery, lino and screen printing, dressmaking and calligraphy.</p> <p>Find out more: www.gateshead.gov.uk/DocumentLibrary/Education/Leaflets/adult-learning-courses/directory.pdf </p>

66	North East Futures UTC	<p>Meet representatives from North East Futures UTC, a brand new 14-19 school opening in September 2018 in Central Newcastle, specialising in careers in Health Science and IT.</p> <p>Find out more: www.nefuturesutc.co.uk</p> <p>Twitter: @NEF.UTC</p>
67	Pantry Ltd	<p>Pantry are a grocery inventory management service, and are launching their first product at Maker Faire UK! With 'A Bit Pushy', you'll be able to make your own push button under expert supervision, using soldering, 3D printing & Arduino coding skills.</p> <p>The Pantry team will then explain how to connect the button to the Pantry API, which will allow it to re-order grocery supplies through online supermarkets, whether that is cereal, toilet paper or ice cream!</p> <p>They'll also have a small mock kitchen to further explain how Pantry and 'A Bit Pushy' work (you can see a short preview here).</p> <p>Find out more: http://pantry.net</p> <p>Twitter: @pantry_net</p>
68	PiKon	<p>Combining 3D printing and Raspberry Pi technology, the PiKon is the world's first telescope of its kind. See live images from PiKon on a monitor and enjoy 3D printer demos that show how PiKon parts were created.</p> <p>Find out more: www.PiKonic.com</p> <p>Twitter: twitter.com/@PiKonCamera</p>

69	<u>Radio Society of Great Britain</u>	<p>The Radio Society of Great Britain will be on hand to introduce Maker Faire UK visitors to wireless communications as a maker activity and hobby, in the form of amateur radio.</p> <p>They'll be running a series of workshops and activities throughout the weekend. You could code a wireless BBC micro:bit, build a WW2 Enigma encryption machine using a Pringles tube, or take part in a cyphers and codes workshop. You can also experiment with Morse code – play a Morse Mouse game, practice sending and receiving Morse code, or build you own Morse key to take home.</p> <p>Find out more: http://rsgb.org/</p> <p>Twitter: @theRSGB</p>
70	<u>Ray Phillips – Sculptor, Prop Maker</u>	<p>Ray Phillips is a freelance sculptor, mask and prop maker with more than 14 years' experience. His work has previously featured on BBC television, including Blue Peter and EastEnders. He will be displaying range of replica masks and props from popular science fiction, fantasy films and television, including works-in-progress that illustrate the expert process in creating creature masks and make-up for TV and film.</p> <p>Visitors will be invited to handle the materials and try out some of the sculpting techniques used in creating these pieces, as well as trying on some of the masks/helmets on display! New for this year is a full-size, radio-controlled replica of the iconic Star Wars droid R2D2, constructed using laser cut, CNC routed and 3D printed components.</p> <p>Find out more: www.rayphillips.co.uk</p> <p>Twitter: @Rayphillips026</p>

71	<u>Remap</u>	<p>Remap is a unique national charity that brings together two sets of people: volunteers who are skilled at making things, and people with a disability that could be eased by a piece of specialist equipment. The result each year is over 3,000 pieces of custom-made equipment which help transform the lives of disabled people.</p> <p>They'll be displaying a range of items at Maker Faire UK to show the sort of things they have created, and will be chatting with visitors about their work. They're actively looking for volunteer makers who could help them with their next creations – could that be you?</p> <p>Find out more: www.remap.org.uk</p> <p>Twitter: @RemapUK</p>
72	<u>Spacecraft by Junkcraft</u>	<p>This display of spacecraft is made from recycled bits and pieces from around the home, with a range of models and scenes to inspire creative minds and hands of all ages.</p> <p>Find out more: http://junkcraft.com/</p>
73	<u>StarFish Prime</u>	<p>StarFish Prime will be presenting and demonstrating two open source geophysics sensing projects, based around infrasound (sound below the range of human hearing) and solar activity.</p> <p>These devices monitor in real-time, outputting data to the web via small embedded computers such as Raspberry Pis or Arduinos. They can share data with international networks, giving opportunities for national & international collaboration.</p> <p>They have simple modular designs that can be quickly built and tested in a school or at home, making them an ideal starting point for younger Makers (11+) with an interest in coding or engineering.</p> <p>Find out more: www.starfishprime.co.uk/projects/EFM/EFM.html</p>

74	<u>The Evolution of Artificial Life</u>	<p>interact with creatures in virtual worlds with The Evolution of Artificial Life.</p> <p>They'll be running computers with a range of animated virtual worlds, containing artificial creatures for visitors to engage with. You can change the way the creatures look and behave, as well as the way they compete and adapt to their environment. Get involved and see what happens!</p> <p>You can also learn how to manipulate simplified digital DNA and how these ideas can be used to build advanced models of disease spread.</p> <p>Find out more: www.cognesence.co.uk</p>
75	<u>tu2space / StratoBooster</u>	<p>Tu2space, a group of students from Teesside University, have been challenged to place a rocket into space from UK soil – specifically Northern England – within one academic year. Their response was StratoBooster, a tiny space shuttle no taller than a sheet of A4 paper.</p> <p>They have created everything involved in the project from scratch (including rocket propellant), and will be talking visitors through the process via videos and hardware examples – it's out of this world stuff!</p>
76	<u>UKRA The UK Rocketry Association</u>	<p>The UK Rocketry Association (UKRA) is the governing body for amateur rocketry in the UK, and they'll be bringing a whole host of rockets to examine and hold, from scratch built scale models through to bigger high power rocket airframes, which are up to three metres tall!</p> <p>They will also be bringing some educational props to explain the principles of rocketry and offering an excellent photo opportunity – the chance to be photographed holding one of their amazing rockets.</p> <p>Find out more: www.ukra.org.uk</p> <p>Twitter: @UKRA_rocketry</p>

77	<u>Water Bike</u>	<p>Water Bike is the brainchild of a father and son duo, who teamed up to adapt a bicycle that would work on land and water, with no need for stopping or adaption in between. Starting with an unwanted old bike, it was constructed with a minimal budget using mostly everyday materials, recycled wood and scrap objects and modified throughout the process.</p> <p>Visitors will get to see the Water Bike itself, as well as videos of it in action (it has been successfully tested at Newburn on the River Tyne and on sea at St Mary's Lighthouse, Whitley Bay), and examples of the assembly process.</p> <p>They'll also be showing display boards featuring pictures and drawings of the design considerations and physics involved; a display of the materials used in the construction of the bike and materials considered for the construction but rejected.</p> <p>Find out more: https://youtu.be/DVAgZL1hBG0</p>
78	<u>Antweight Robots from Mechanical Cat</u>	<p>Antweight robots are tiny fighting bots, weighing a maximum of 150 grams. Mechanical Cat will be hosting an all-day robot rumble, pick your bot and get ready to do battle! Different bots have different skills, some have flippers, wedges and some are all-wheel-drive bulldozers. The aim is to use your bot to flip, push and drive all the other bots out of the arena.</p> <p>Mechanical Cat will also be showing visitors how to set up their own Antweight Clubs in their area, as well as how to create their own Antweight bots using their open-source designs.</p> <p>Find out more: http://fablabpembrokeshire.org/pembrokeshire-robot-builders-club</p>
79	<u>Burnside Business and Enterprise College STEM Club</u>	<p>Burnside Business and Enterprise College STEM Club will be demonstrating the projects that they have been developing within the group, including a crash course in how STEM can help during a (hypothetical!) zombie apocalypse. They will be demonstrating how to suture wounds with pig skin, and explaining how they decided which household products were the best microbial agents. Younger students will be demonstrating a project with much more realistic applications – a pulley system designed to transport tomatoes, inspired by the real-life dilemmas faced by Nepalese farmers.</p>

80	<u>COB CNC</u>	<p>COB CNC is a 3 axis CNC platform, designed to be compact for home use. Catch the machine in action as it cuts out ornamental shapes with a springtime theme, which visitors are welcome to keep as a souvenir of their visit to Maker Faire UK.</p> <p>Find out more: http://cobcnc.com</p> <p>Twitter: @cob_cnc</p>
81	<u>Creative stitch and Toy Hacker</u>	<p>Creative Stitch will be displaying mixed media pieces of work created via hand and machine stitch, and will be offering visitors the opportunity to try out various hand stitches.</p> <p>Toy Hacker will be showing off some of their fun, interactive automatons, created using LEGO, K'NEX, lolly sticks and skewers. It's perfect for kids, giving them the inspiration to modify and repair rather than just throw away old or broken toys.</p>
82	<u>Domestic Widgets – Northumbria University</u>	<p>Domestic Widgets are cute, tiny origami-like paper objects that respond to your voice! Based on the Paper Signals project from Google, the Human Computer Interaction group at Northumbria University has further developed the paper templates, to allow people to not only control, but also program the DIY paper robots.</p> <p>Head to their stand and find a dozen pre-built Domestic Widgets that you can program and control using your voice and the provided phones.</p> <p>You can also build your own tiny paper robot using scissors, glue and tape, which you can control by hand (electronics not included).</p> <p>Find out more: http://domesticwidgets.com</p> <p>Twitter: @davidverweij</p>

83	FeltOn Arts	<p>Charlotte Lobb and Emma Garland are teachers and felt artists from FeltOn Arts, who make functional objects from felt and also teach felt making to children and adults in many different settings.</p> <p>Felt making is the oldest known form of making fabric; using wool fibres, soap, water and friction to make anything from pictures to coats, or more technical creations like 3D sculptures or life-size models – you are limited only by your own imagination!</p> <p>FeltOn Arts will offer Maker Faire UK visitors the experience of creating either a felt flower, bracelet or coaster, using all the colours under the sun. Each item will take around 15 – 30 minutes to complete.</p> <p>Find out more: https://feltonarts.co.uk</p>
84	Ingenues	<p>Ingenues creates fun and educational toys and games for children, based around the lives of ordinary women who have had extraordinary careers. They will be displaying and selling their activity boxes and holding drop-in sessions to demonstrate some of the inspiring costumes, games and activities included in their boxes.</p> <p>Find out more: www.ingenues.co.uk</p> <p>Twitter: @WeAreIngenues</p>
85	Make Stuff North East	<p>Make Stuff North East offer electronics and coding activities to schools, with the aim of developing tech skills in young people, whilst building on the region's creative industrial heritage.</p> <p>At Maker Faire UK 2018, visitors can have a go at making circuits with LEDs and switches, and use them to interact with Scratch on a Raspberry Pi. Drop-in, chat to the friendly Make Stuff North East team, and find out more about creating circuits!</p> <p>Find out more: https://makestuffne.co.uk</p> <p>Twitter: @makestuffne</p>

86	<u>Micro Pi Noon and Other Things</u>	<p>Micro Pi Noon and Other Things will be bringing a whole host of fun to Maker Faire UK. Have a go of their battling robots and try to pop your opponent's balloon before they pop yours, or try out their Naughty or Nice machine, which gives you a rating on the naughtiness scale after scanning your hand!</p> <p>Find out more: www.corteil.co.uk/Blog</p> <p>Twitter: @CannonFodder</p>
87	<u>Paper Jam Comics Collective</u>	<p>The Paper Jam Comics Collective want to help you make comics! This year they'll be making mini comics using only one sheet of paper and a pen. This is a great activity for any age, and no drawing skills are needed (promise!).</p> <p>If you'd like to improve your drawing skills they'll be able to show you several 'how to draw' tutorials and prompts from the 24 Minute Comic Randomiser.</p> <p>Inspired by their previous visits to Maker Faire UK, they've also made a comic panels drawing machine! Constructed using LEGO Mindstorms and bonus LEGO parts by Paul Thompson, this machine gobbles up paper and throws it back at you with a fresh set of boxes ready to receive your amazing comic drawings.</p> <p>Find out more: http://paperjamcomics.blogspot.co.uk</p> <p>Twitter: @PaperJamCC</p>
88	<u>RC2014 – Retro Computer Kit</u>	<p>RC2014 is a retro computer kit based on the technology around in the late 70s/early 80s. Depending on your age, it will either take you back to your youth, or give you an insight into how things were "back in the day"!</p> <p>Machines will be set up with retro games to play, including Snake and the classic text adventure, Zork.</p> <p>Find out more: https://rc2014.co.uk</p> <p>Twitter: @ZxSpectROM</p>

89	<u>Robot Orchestra – The University of Manchester</u>	<p>Can a robotic orchestra replace the real thing?</p> <p>The Robot Orchestra is an outreach project led by Professor Danielle George, which involves young people learning coding and recycling objects to make a robot instrument – you might have spotted them on the BBC iPlayer documentary, Can a Robot Replace Ed Sheeran?.</p> <p>Enjoy this unusual orchestra as they perform Sheeran’s smash hit, Shape of You (officially the most streamed song of 2017!), and join them to take part in interactive engineering activities too.</p>
90	<u>Robotic Assembling 3D Printers</u>	<p>Developed in 2014, Robotic Assembling 3D printers have integrated robotics and are capable of assembling working products incorporating electronics, motors and other non 3D-printable components. They have been displayed at Maker Faire events across the world, including the US, Rome, Brighton, London and Derby.</p> <p>See them in action as they show off their progress and demonstrate how to overcome the challenges posed by such unique technology.</p> <p>Find out more: www.buzztechnology.co.uk</p>
91	<u>Robotical – Marty the Robot</u>	<p>Come and program Marty, the walking, dancing, football playing robot!</p> <p>You’ll be able to see Marty playing football, program a Marty yourself and 3D print a Mini-Marty to take home.</p> <p>Developed during his creator’s PhD in robotics, Marty is designed to make real robotics accessible and fun to makers of all ages.</p> <p>Find out more: https://robotical.io</p> <p>Twitter: @RoboticalLtd</p>

92	SB Components Ltd: PiTalk	<p>Raspberry Pi fans – behold the PiTalk! The first ever modular smartphone to be developed on the Raspberry Pi. It is compatible with Raspberry Pi zero , Pi 2 and Pi 3. Powered by Python, it also includes a 3G module for blazing fast voice and data communication. Visit SB Components Ltd stand at Maker Faire UK 2018 to find out more.</p> <p>Find out more: www.kickstarter.com/projects/127134527/first-iot-enabled-and-modular-phone-for-raspberry</p> <p>Twitter: @sb_ltd</p>
93	Science Sessions: Dino Origami	<p>Join Life's Science Sessioners (that's a group of young people aged 13+, who meet at Life to tackle hands-on science), and create your very own origami dinosaur under their expert supervision. Will you create a T.rex, a Diplodocus or something more ambitious?</p> <p>Find out more: www.life.org.uk/science-sessions</p>
94	Sensible Object	<p>Sensible Object are the proud creators of Beasts of Balance, a hybrid physical-digital game that has gone from prototype to product in just 2 years. The creators will be on hand to chat about the tech and custom sensing hardware behind Beasts of Balance, and just how they developed it from a prototype to a fully-fledged product being sold worldwide by the Apple store.</p> <p>They will also be offering the chance to play the latest version of their game, where you stack physical pieces to create a digital world. The more beasts you add to your tower, the more fabulous your digital world becomes!</p> <p>Find out more: beastsofbalance.com</p> <p>Twitter: @beastsofbalance</p>
95	Take-Off RC Newcastle	<p>Build a simple glider with Take-Off RC Newcastle and learn how you can take it from basic model to a more complex RC powered model, capable of controlled flight. It's perfect for those with an interest in RC (remote control) models or scratch-building.</p> <p>Please note – there will be a small charge for this activity.</p> <p>Twitter: @jondavies</p>

96	<u>The Beadworkers Guild</u>	<p>The Beadworkers Guild will be demonstrating three different beadwork techniques that are all suitable for curious beginners, and encouraging people to get more involved in this creative craft. The Guild will also be bringing a display of work by members, based on a 'Sunrise' colour theme, which they hope will inspire both beginners and beyond to pick up a needle and have a go.</p> <p>Find out more: www.beadworkersguild.org.uk</p>
97	<u>Tindie: The Maker Marketplace</u>	<p>Tindie is the Maker marketplace and will be showcasing a wide variety of different Makers across the weekend, all of whom will be showing off their own unique projects. They will also have 'learn to solder' badge kits and stickers to give away.</p> <p>Find out more: www.tindie.com</p> <p>Twitter: @tindie</p>
98	<u>Totem</u>	<p>Totem provides sturdy components that create a unique prototyping system for Makers of all levels. These components include unique Totem electronics and mechanical parts, 'cuttable' plastic parts, robotics transition parts and brackets to mount motors and electronics.</p> <p>Totem will be displaying their prototyping system at Maker Faire UK, and will be selling some of their kits, so you can have a go for yourself.</p> <p>Find out more: www.totemmaker.net</p>
99	<u>Twist and Cross</u>	<p>Learn about the rich history of bobbin lace with Twist and Cross, and try your hand at creating your own lace.</p> <p>You can also see how basic bobbin lace techniques have been put together in the past and how they are used today with a wide range of materials.</p>
100	<u>Tyne Valley Matters</u>	<p>Learn more about the craft of rug making with Tyne Valley Matters. Their skilled group members will be on hand to pass on the knowledge of their craft and run demonstrations.</p> <p>There will also be the chance to learn quilting and felting with this group too (depending on demand).</p>

101	UK YouTube Makers	<p>UK YouTube Makers are led by Al (of Al's Hack Shack), and are a collective of YouTubers who cover a huge amount of Making aspects, including: electronics; woodwork; metalwork; ceramics; home improvement; arts and crafts and cooking. Their light-hearted, family-friendly approach to Making is an ideal starting point for beginners. They aim to inspire the next generation of makers with demos, interactive displays and will be offering advice and insight to help you get started as a Maker.</p> <p>As a former volunteer at Maker Faire UK 2017, Al is the ideal example of how a visit to Maker Faire can inspire you to start Making, crafting and creating on your own!</p> <p>As seen in MAKE Magazine: https://makezine.com/2017/10/14/weekend-watch-come-on-down-to-als-hack-shack/</p> <p>Find out more: www.youtube.com/c/alshackshack</p> <p>Twitter: @alshackshack</p>
102	Woodhorn Matters	<p>Learn traditional proggy and hooky skills with Woodhorn Matters, who have a wealth of experience in creating rugs, wall hangings, bags, cushions and more. These two techniques are quick to learn, with a five minute taster session giving you the basics of this traditional skill.</p> <p>They will also be displaying items made by group members, to demonstrate the diversity of the proggy and hooky techniques.</p> <p>Find out more: www.woodhornmatters.com</p>
103	Bicycle Drawing Machines	<p>Discover the art, craft and mathematics of cycling using these quirky drawing machines made from scrap bicycles. Made from familiar bike parts, these contraptions demonstrate the magic of maths and mechanics in an exciting, interactive way. Drawings on A3 or 30cm square art paper can be taken away for a small charge (£2 each).</p> <p>Find out more: www.behance.net/gallery/18833343/GDM</p> <p>Twitter: @NickSayers</p>

104	<u>Hacman (Manchester Hackspace)</u>	<p>Meet members of HACMan, a Manchester-based arts, science and technology club. They run member-driven community workshops and offer a supportive, hands-on network for new Makers.</p> <p>Find out more: www.hacman.org.uk</p> <p>Twitter: twitter.com/hacmanchester</p>
105	<u>Newcastle University: Electronic Engineering, Diamonds and Street Science</u>	<p>Join staff and students from Newcastle University for a range of hands-on electronics activities and gain an insight into cutting-edge research.</p> <p>Practice your soldering techniques by constructing and testing simple electronic systems, including a heart rate monitor and an ultrasonic range meter, which you can take away. Students and staff will be on hand to supervise construction and help you learn not just how to make the projects, but also how and why they work. They will also be displaying incredible research projects, including the latest uses for diamonds.</p> <p>Keep an eye out for their team of Street Scientists too, a team of enthusiastic students who are specialists in Science Busking. They bring science to life through short interactive demonstrations. Prepare to be amazed, baffled, inspired and entertained!</p> <p>Find out more: www.ncl.ac.uk/engineering</p> <p>Twitter: @STEMNewcastle</p>
106	<u>Avalon ROV</u>	<p>The ROV is an underwater robot, built by a team of students from The University of Sheffield.</p> <p>They'll be showcasing the ROV in a small paddling pool and visitors will have the chance to pilot it too! Using joysticks, a video feed and a robotic gripper, taking control of the ROV is easy (and fun!).</p> <p>Last June the Avalon ROV team were the first team from England to take part in the MATE ROV International Competition in California.</p> <p>Find out more: www.facebook.com/AvalonROV</p>

107	gwk woodshed CIC	<p>gwk woodshed are a social enterprise that create, build and refurbish products from waste and reclaimed wood. They'll be showcasing some of their products and chatting about their work in local employment and recycling.</p> <p>Find out more: www.gwkwoodshed.org.uk</p> <p>Twitter: @gwkwoodshed</p>
108	Hen Ogledd Glass	<p>Hen Ogledd Glass is a small Glassblowing studio based in North West Cumbria, run by Ann Sloan and Josh Froggatt.</p> <p>They'll be bringing their travelling glassblowing studio (funded through Kickstarter) to Maker Faire UK, so visitors can have the unique experience of blowing their own glass bauble! This workshops will cost £30 per bauble, which includes postage of the finished pieces. (Postage is required as the glass needs to cool in a controlled environment overnight and so is unable to be taken away on the day.)</p> <p>They'll also have a range of products on show, to demonstrate the range of work that can be created when you put your making skills to the test!</p> <p>Find out more: www.facebook.com/HenOgleddGlass</p> <p>Twitter: @HenOgleddGlass</p>

109	<u>Malham Smithy Blacksmiths</u>	<p>Take up your place at the anvil and try your hand at being a blacksmith with Malham Smithy!</p> <p>They'll be demonstrating traditional blacksmithing techniques, working on a coke forge powered by air bellows. Watch the metal being heated up to 1400°, glowing white hot and the blacksmith striking on the anvil, forging the metal into shape using techniques such as drawing down, punching, twisting and bending – all by hammer and hand.</p> <p>Visitors will also get the opportunity to have hands-on experience at the anvil, taking part in short one-on-one sessions, striking hot metal to form basic shapes.</p> <p>Please note – Blacksmithing can be dangerous, so for safety reasons restrictions apply to this activity. Malham Smithy reserve the right to refuse participation of people where they consider the behaviour of participants causes unnecessary risk to visitors and staff, or where clothing is deemed unsafe to wear by a forge. Age and height will also be taken into consideration; this activity is not suitable for young children. We do not discriminate against disabilities, people will be considered on an individual basis, however safety will be the priority consideration. Wheelchairs would not be permitted near the forge.</p>
110	<u>Muddy Fingers Pottery</u>	<p>Muddy Fingers will be offering drop-in workshops on raku firing. Use one of the pre-fired pot and tiles and get creative as you learn how to apply bespoke raku glazes. You can use resist techniques and patterns to create your own masterpiece. Once you've finished glazing your pot, it will be placed inside a kiln until the glaze melts (at around 950 °C) and then into an airtight sawdust bin, which helps achieve a coppery bronze colour. Finally, the pots are cooled in a bucket of water and washed, ready for you to take home.</p> <p>Find out more: www.muddyfingerspottery.com</p> <p>Twitter: twitter.com/Muddyfingerspot</p>

111	Mutoid Waste Company	<p>Joe Rush, founder of the surreal performance art group Mutoid Waste Company, will be bringing two of his creations to Maker Faire UK – Rustang Sally and Clampasaurus.</p> <p>Joe was responsible for the art direction and production of the vehicles, mobile stages and props used at the 2012 London Paralympic Games closing ceremony – where both Rustang Sally and Clampasaurus were used as part of the performance.</p> <p>Rustang Sally was conceived in a town in South California where American Graffiti was filmed. Created from a stretched V8 Ford Broncho and built up with rusty body panels from Cadillacs, Chevrolets and Buicks, she was driven across the Black Rock desert through Arizona as the embodiment of the American dream.</p> <p>Clampasaurus is made from 25 BMW subframes, welded together to form the body of an animated hydraulic metal crunching dinosaur. Agricultural machinery for his teeth and head, and a slashed tractor tyre swishes around for his tail.</p>
112	Noisy Toys: Audio Assault Buggy	<p>Spot this roaming buggy and try out the infamous Nose Test, become part of an electrical circuit, make slinky-fied laser-blasts and explore the acoustic properties of random tat with contact microphones. You can also test ears, carrots and even dogs!</p> <p>Don't miss their Bass in Your Face show, a fun and noisy show performed by Steve Summers who uses powerful amplified bass vibrations and a hacked hard drive to make volcanic clouds of flour explode into the air. You'll even feel 1000 watts of sonic power buzz through your fingers.</p> <p>Twitter: @NoisyToysOrg</p>
113	Rowan Woodcraft	<p>See traditional greenwood craft demos and learn all about this impressive skill with Rowan Woodcraft. Using hand tools, they make useful and aesthetic items for day-to-day use from locally sourced and sustainability managed wood. They also make modern and historical reproductions. There will be a chance to purchase some of their handmade products on the day.</p> <p>Find out more: www.facebook.com/RowanWoodcraft</p> <p>Twitter: @rowanwoodcraft</p>

114	<u>Sorbus – green woodturning</u>	<p>Sorbus will be demonstrating green woodturning using a traditional pole lathe. They will be showing how the wood is split and shaped on a shave horse, and then turned on a lathe to produce simple turned items such as dibbers and rounders bats.</p> <p>Find out more: www.robwoodturner.co.uk</p>
115	<u>Steamroadsters</u>	<p>These steam-powered roadsters are like wasteland versions of penny farthings! Ridden by actors from Abacus Theatre – you'll be entertained while you marvel at these whimsical and wonderful creations.</p>
116	<u>Ian Russell: Big Bubble Man</u>	<p>Often spotted entertaining people at outdoor events with enormous bubbles (and vast clouds of smaller ones!), The Big Bubble Man returns to Maker Faire UK 2018. Look out for him in Times Square, outside Life Science Centre.</p> <p>Nothing else can attract a crowd so quickly, send children into such an ecstatic frenzy, or put so many dopey smiles on grown-ups' faces.</p> <p>Find out more: www.interactives.co.uk</p> <p>Twitter: @ianrusselluk</p>
117	<u>Sherwood Carving</u>	<p>See chainsaw carving demonstrations of various creatures, by Jonathan from Sherwood Carving.</p> <p>Chainsaw carving is a form of power carving which mainly relies on the use of a chainsaws to sculpt the wood into the desired subject – hand chisels are rarely used except for very fine detail. As a result, chainsaw carvings can be produced relatively quickly in comparison with most other forms of sculpture.</p> <p>Find out more: sherwoodcarving.co.uk</p>
118	<u>Meze Mundo Street Band</u>	<p>Meze Mundo are Newcastle's very own world carnival band. A group of troubadours, playing brass, strings amongst other things, bringing you an eclectic mix of street music from across the globe.</p> <p>Find out more: http://mezemundo.co.uk/wordpress</p>

119	OTTER's Laz-E	<p>OTTER's Laz-E is a unique, interactive laser guidance game, with hidden colour sensors that must be found and lit up using the control sticks provided.</p> <p>One laser bounces between 3 mirrors. Each mirror can be angled using joysticks attached to the side of Laz-E, moving the laser beam around the box. Teams must find – and light up with the laser – one of 3 hidden colour changers inside the game.</p> <p>You only have two minutes to complete the game – can your team rise to the challenge?</p> <p>Find out more: otterproduces.com/content/article/otters-laz-e</p> <p>Twitter: @OTTERProduces</p>
120	OTTER's Rubox	<p>Try your hand at The Rubox, a compact, colourful, mend-bending challenge! Housed inside a secure, secretive case, The Rubox is comprised of nine buttons and nine coloured tiles, the aim is to make all the tiles the same colour.</p> <p>Each button changes one, two or three tiles. The game starts simple at Level One and can be challenging for some at Level Three, and those with a keen puzzling spirit can unlock a path to an extra three challenges!</p> <p>Find out more: www.otterproduces.com/content/article/rubox</p> <p>Twitter: @OTTERProduces</p>
121	The Herd	<p>Experience a scrapheap safari, with 'wild beasts' roaming around Life Science Centre. This performance art, created by the company foolpool, displays ingenuity and skill in upcycling old bikes into mechanical animals.</p> <p>Twitter: @foolpool_comedy</p>

CANCELLED

[Brother Sewing Machines](#)

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[DoESLiverpool – MadeInvaders](#)

[Newbury and District Hackspace](#)

[Northumbria Basketry Group](#)

[RiffPOD](#)

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