

Sydney Meccano Expo 2023



Michael Holland



Photo credits in this magazine are:
 John Burke
 Matthew Auger
 Michael Links
 Paul Dale
 Graham Jost

Sydney members
 Holland, Michael
 Hughes, Tom
 Johnson, Chris
 Lamb, Ashley
 Lewis, Warwick
 Links, Mike
 Neal, Blue
 Osborne, Jim
 Rimmer, Joseph
 Squires, Lee
 Stuart, Peter
 Taylor, David
 Toohey, John
 Tulett, Murray

Interstate travellers
 Auger, Matthew
 Burke, John
 Butterworth, Steve
 Butterworth, Jackson
 Butterworth, Bradley
 Dale, Paul
 Jost, Graham
 Moszczynski, Mario

Mississippi Paddle Steamer

This model had been in my mind for months, but when I started looking at curved strips for the paddle wheel, it took over and I dropped everything else. After about four tries, I had a paddle wheel and the rest started falling into place.



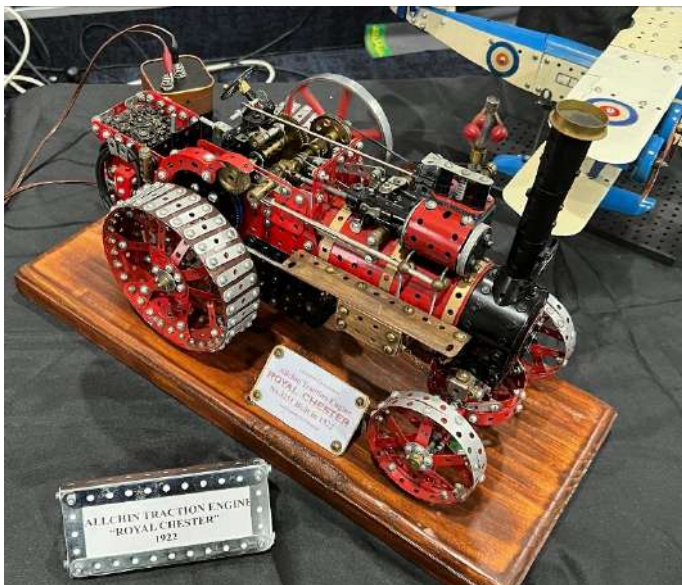
The hull is made from black and yellow windmill sails, black side out. As I didn't want to bend any of these parts, I made eight replica ones for the curved sections at the front and back. The paddle wheel is motorised, driven by two large cranks coming out of the back of the ship's body. You are not supposed to notice the shaft and bevel gears that do the real driving. I acquired a number of O-gauge metal figures to populate the decks and seats, plus a pelican flying over and one on the roof. The ship flies an early American rebel flag, with 13 stars in a circle.



Page 1 Plane built from the Aeroplane Constructor sets of the 1930's.



I needed a lot of the 5-hole connector strips for the balustrade around the deck, so yet another Eiffel tower set was needed. Fortunately, Chris Johnson was able to locate one for me, so construction continued. On my model all the windows have plastic sheets and all the doors have doorknobs. There are steps up to the different levels. Benches are scattered about, but their colour was problem. I needed something that would stand out just enough without clashing with the other colours, and after trying dark blue, silver, grey, I settled on a fairly bright blue.



Alchin Traction Engine

I have built this model three times over the years and displayed it many times. This latest version is resplendent in red, whereas the two previous ones were all zinc plated. It is still one of my favorites.



Tom Hughes

The "Titan" the model built in 1998~ 2001 as a Memorial model of the said 150-ton lift crane built by Cockatoo Is Sydney during the 1st World War.

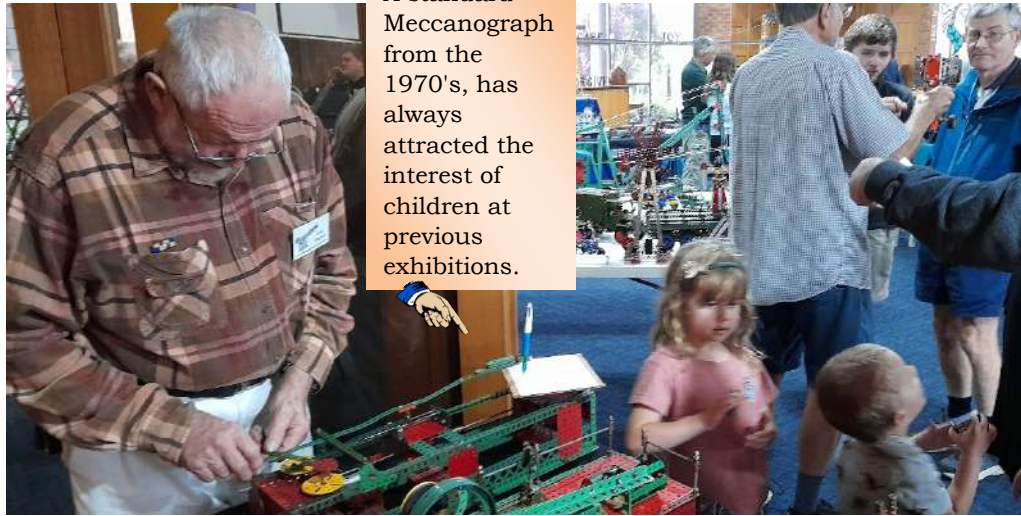
Most of the parts were manufactured by Cowans and Sheldon of Carlisle (U.K.) and shipped to Sydney with some losses enroute. The model was constructed using copies (from the National Archives to the scale of 1 inch to 1 metre (odd but about 1:40) About 0.1 % is not Meccano.

This crane worked in Sydney from 1918 to about 1990, was sold to a NZ Salvage company. Then foul play stepped aboard, and Titan supposedly had a contract to work in Singapore for 3 years before returning.

She never got north of Port Macquarie before sinking at Midnight Christmas Morning 1992.



A standard Meccanograph from the 1970's, has always attracted the interest of children at previous exhibitions.



Wheeled Bulldozer This machine has 4-wheel drive and steering from details supplied by my son who operates one occasionally. The steering uses a rack strip to copy the Hydraulic ram on the real one.



A model of the Rolling Lift Bridge at the entrance to Constitution Dock Hobart scale about 1:25 from photos and plans from the heritage authority in Hobart. The large tooth racks were supplied by a Water jet metal cutting friend at Mona Vale.





Chris Johnson



The Runcorn-Widnes Transporter bridge came out of its international transport boxes last shown at CAM France in 2018, Skegness, the year before and Melbourne in 2015. Built by 11 members of the Meccano Modellers Association Sydney whose average age was 72 at the time of its construction.

Much appreciated by visitors to our Annual Exhibition, it stood on the stage in its glorious blue-gold art deco paint at seven metres long with a span of 5 metres. While not in the mood for working (due to its owner Chris Johnson, not realising how much he would forget over 6 years, when he and his dutiful wife last assembled it and disassembled it (probably lubricated by the wine at CAM!) it still had the Warwick Lewis designed automatic gates descending into the roadway, as they did on the prototype. Nevertheless, it remained a crowd pleaser.



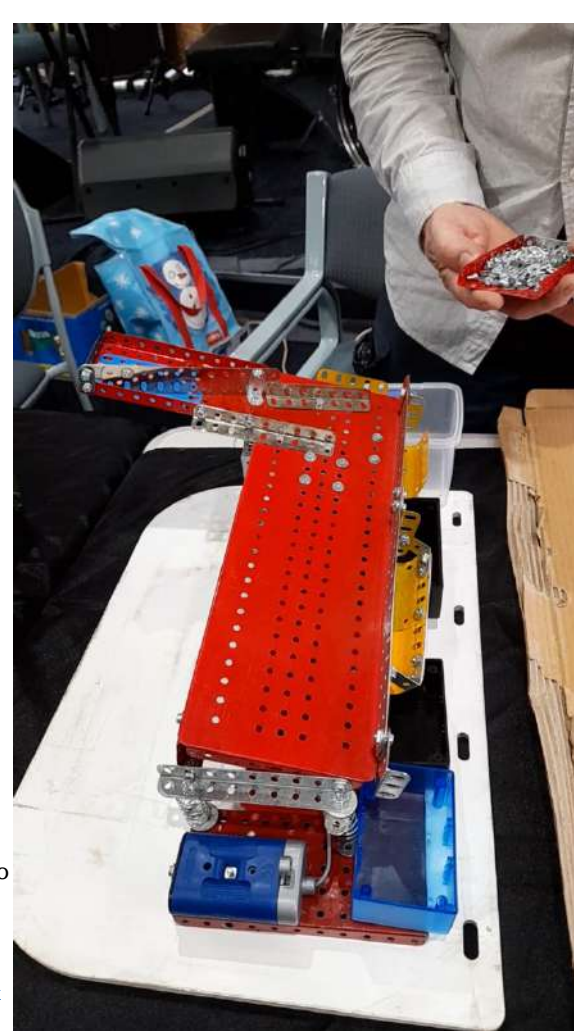
It arrived almost complete, Chris having decided that hiring a truck to bring it largely intact was easier than assembling it from its many 2 foot modules (who doesn't appreciate a 24 1/2" Angle Girder!) but went home in Chris and Winnie's car, the Melbourne Club boys having enjoyed reducing to it scrap: oops, sorry, 2ft. long sections.

It will return again and working properly. Chris will start working with a much longer lead time than one week. Thanks to the Melbourne Club boys who almost out of jealousy wanted to reduce it to atoms but stopped at 2ft. Now we have to get it out of our spare bedroom; don't ask to stay for a while.





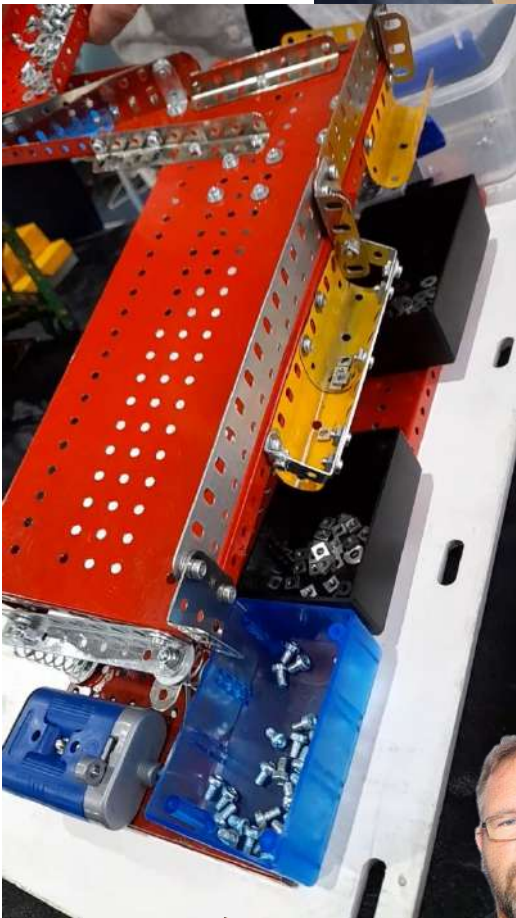
Ashley Lamb



Watch Ashley's Nut, Bolt AND Washer sorter in action by clicking on the photo or the link below.



<https://youtube.com/shorts/SVUIZP3hsRk>



Lee and Nancy Squires, Jim Osborne, Winnie Southcott, Michael Links at Hornsby RSL. Murray and Jo Tullet obscured.



Joe Rimmer





Michael Links

My first Meccano set was a No.1 set which I received when I was about 9 years old in 1961. It was a Christmas present, and I built a garden seat. Attracted by the colour pictures on the back of the instruction book, I desired a set that would allow me to build one of those models and three years later I was given a No.5 set and built the helicopter.



As time went by, I acquired a magic motor and a no.1 reversing clockwork motor. I put wheels on it and added some horses to make a stagecoach. I also remembering making a model of Emile Mercier the cartoonist's 'Gravy 40', a three wheeled vehicle driven by a man with a long white beard and a sherlock Holmes hat. I took it to school. I was not very adventurous with Meccano and was not inclined to improvise – I had to follow the directions exactly.

Meccano didn't get much use in my latter school years as I was studying for many hours per day. When I left school and began working, one of my first purchases was a 5a set to upgrade to No.6. The sets by now had changed to Yellow and Silver.

When I moved to Sydney, I was in the city near HobbyCo and similar shops. I bought parts and gradually upgraded to a No.9 set. I saw an Ad in Trading Post in 1973 for a No.9 set for \$40, so I enquired. He said it was sold, but he had a 9a set, which was bigger for \$70. It was a long way away, up the Northern Beaches somewhere, but I made the effort and acquired it. In spare parts it would have cost about \$400 at the time. I now had a Ten Set, every Meccano boy's dream. I built the Eiffel Tower, which left very little space in my room. One of my wishes was to build ALL of the models on the back of that instruction book, but only started doing that recently. I have built all but the No.10 model, though I do have more than enough parts for it. The Forklift was built a year ago and has been dismantled.



My display was basically the same as last year. The additional items were a static display of Hornby railway carriages dating from the early 30's which were my Late Father's growing up. – Blue.



Blue Neal



Horizontal Twin Cylinder Industrial Engine

This type of engine would have been found in heavy industry to drive various types of apparatus such as hammers, drill presses, lathes and grinders. – Blue.

HIGH WIRE CYCLIST

Modeller: Jim Osborne

Some questions for consideration

1. In the cyclist, what structural features enable balance to be achieved?
2. Forces operating within the framework of the model. Given that the wire requires a considerable force of TENSION to be applied:
 - a) what type of force is occurring in the diagonal girders which reinforce each of the two towers?
 - b) what type of force is operating between the two brass pulleys and the rods of the driving tower?

Perhaps you may be able to identify other forces in the model.

FOOTNOTE FOR THE PHILOSOPHICAL

It has been suggested that our cyclist could be representative of those who are desirous of ascending the corporate/political ladder. As such, perhaps the cyclist is symbolic of a high flyer.

Never grow old



Jim Osborne

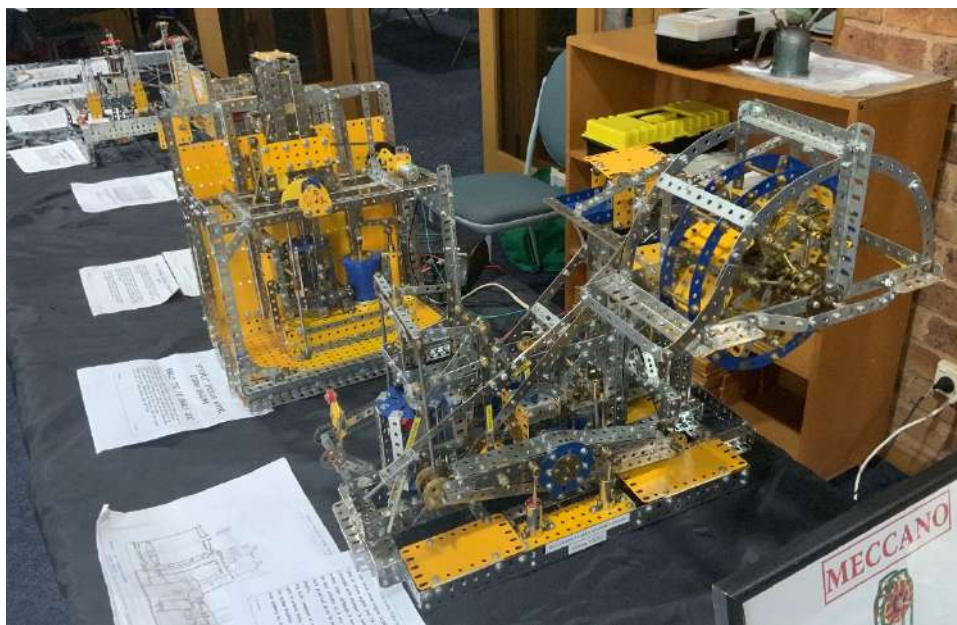


Rotating and Revolving Circles





Lee Squires



Name	Introduced	Brief description	Built
Graphic arithmetic demonstrated in Meccano	1546	The square root of the product of two numbers is derived from a Meccano model.	Dec, 2019
Graphic Meccano Kochanski's approximation for Pi	1685	Constructing a square using Meccano exactly the same area as a circle. Pn 274e.	Oct, 2019
Water driven grain Mill	18 th Century	Shows typical features of water-driven mill of the 18 th Century	Sep, 2020
Murdoch's Oscillating Engine also attributed to Witty of Hull 1813	1785	Murdoch was a partner in Boulton, Watt & Co.	Jan, 2012
Steeple Paddle Wheel engine	1814	One of the earliest forms of marine engines much favoured for enclosed waters.	1/11/2011, Feb, 2017
Melville's Paddle with Parkyn's Sliding cover engine	1828	This device permitted becalmed sailing ships to be propelled with the minimum impediments outside their hulls.	13/05/2012
Early Electric motor by Charles Page	1834	Form of electric as a reciprocating engine with an armature pulled by a solenoid that produced rotary motion by linkages similar to a beam steam engine.	17/01/2020
Francis Worrell Stevens Patent	1834	A method of propelling cargo in confined canals or without horse paths where gentle wakes were required.	1/03/2012
Lever Marine Steam Engine	1829	It is distinguished by having the fulcrum point of the lever at one end whereas side lever engines have the fulcrum near the centre of the lever to balance the connected parts of the engine.	15/11/2015
Side-lever Steam Engine with feathered (Morgan's) paddlewheel.	1843	A heavy, slow and very reliable marine engine that accommodated a more practical drive to paddlewheels over the top of the engine.	May, 2011 (Mk 2)



David Taylor



A small diorama based on a photograph in the Meccano Magazine, Jan 1954, showing a Hornby Dublo train crossing a Meccano bridge. Also, there was a double decker and a single decker bus, the single decker being based on the Austerity buses of WW2 in Sydney. I also had 6 miscellaneous tins, like band-aids etc that I had as a young bloke to put parts in. My wife Robyn and myself had a wonderful time and enjoyed the hospitality of the church as well as the Meccano Club members but especially the hospitality of the ladies serving us cups of tea and yummy delights.

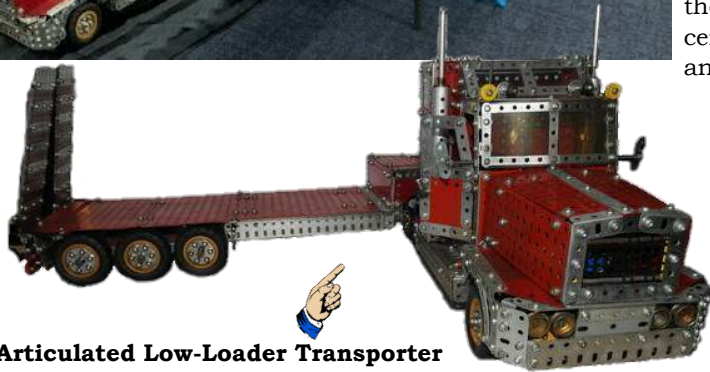


Warwick Lewis



The **"Boneshaker"** (yellow, zinc and red) – designed and constructed by Jack Hextell.

This model of a fairground ride has eight cars that randomly rotate whilst travelling on a circular undulating track. Underneath each car is a tyred wheel that is connected to one arm of a spider. The eight arms of the spider are centrally driven by an electric motor positioned under the floor of the ride. A non-Meccano motor under the floor provides power to the central column via driving bands and gears.



Articulated Low-Loader Transporter

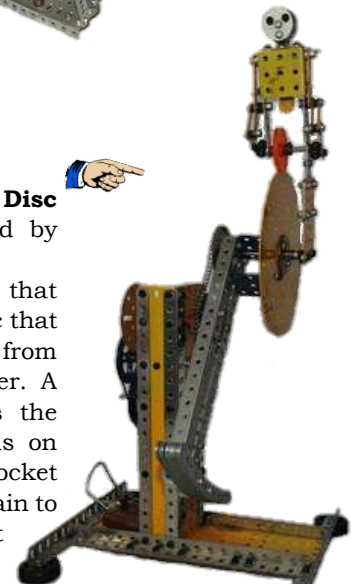
(Red and zinc) - constructed by Jack Hextell. This model comprises a prime mover with six modern wheels that have wide hollow tyres (part #J45) and a trailer also with six identical wheels. The twin rear axles of the prime mover each have differential gears and a central rod above them pivots the wheels over undulating surfaces. The front wheels are supported by leaf springs with steering controlled from the cabin. A non-Meccano cylindrical motor drives the model via sprockets and gears. The three axles of the trailer wheels pivot and the two ramps at its rear are held in a vertical position during travel by tension springs.

Beam Bridge 10.8 (zinc and yellow) – constructed by Warwick Lewis.

This model is a single span balanced beam bridge powered by an E15R electric motor housed in the tower. The bridge span is 24.5" and the support pier at the opening end has twin traffic barriers which automatically lower when the span is raised. The model includes all eight each of the 24.5" and 18.5" angle girders in the No. 10 set.

Unicyclist on Vertical Rotating Disc (zinc and UK yellow) - constructed by Jack Hextell.

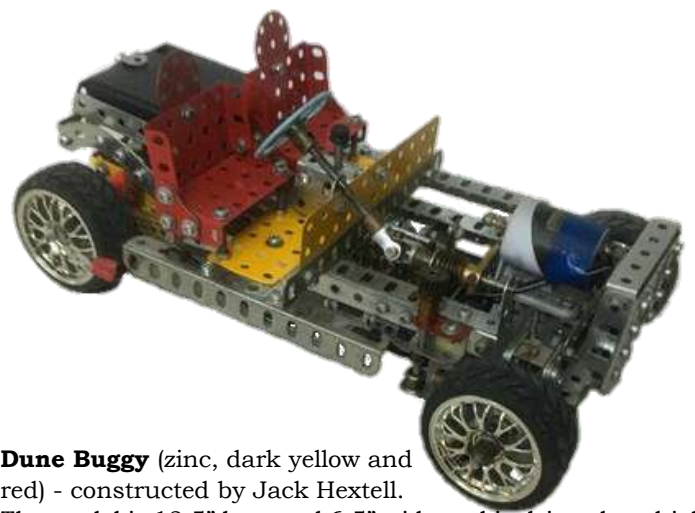
This model features a unicyclist that appears to balance on a rotating disc that is fixed to a counterweight made from twenty curved strips bolted together. A modern 3V Meccano motor drives the rotating assembly via driving bands on pulleys, to gears then a bossless sprocket connected to another sprocket by chain to an axle that maintains the unicyclist in a vertical position.





Touring Car (9.6) (red and green).

This model was included in the 1973 No 9-set book of models. It is 66cm long and reminiscent of large convertibles made in the US in the 1950s and 1960s. This model is powered by an E20R electric motor which drives the rear axle via a worm and other gears. The front steering assembly includes compression springs for suspension. The bending of many flexible plates was required to give the model a realistic appearance.



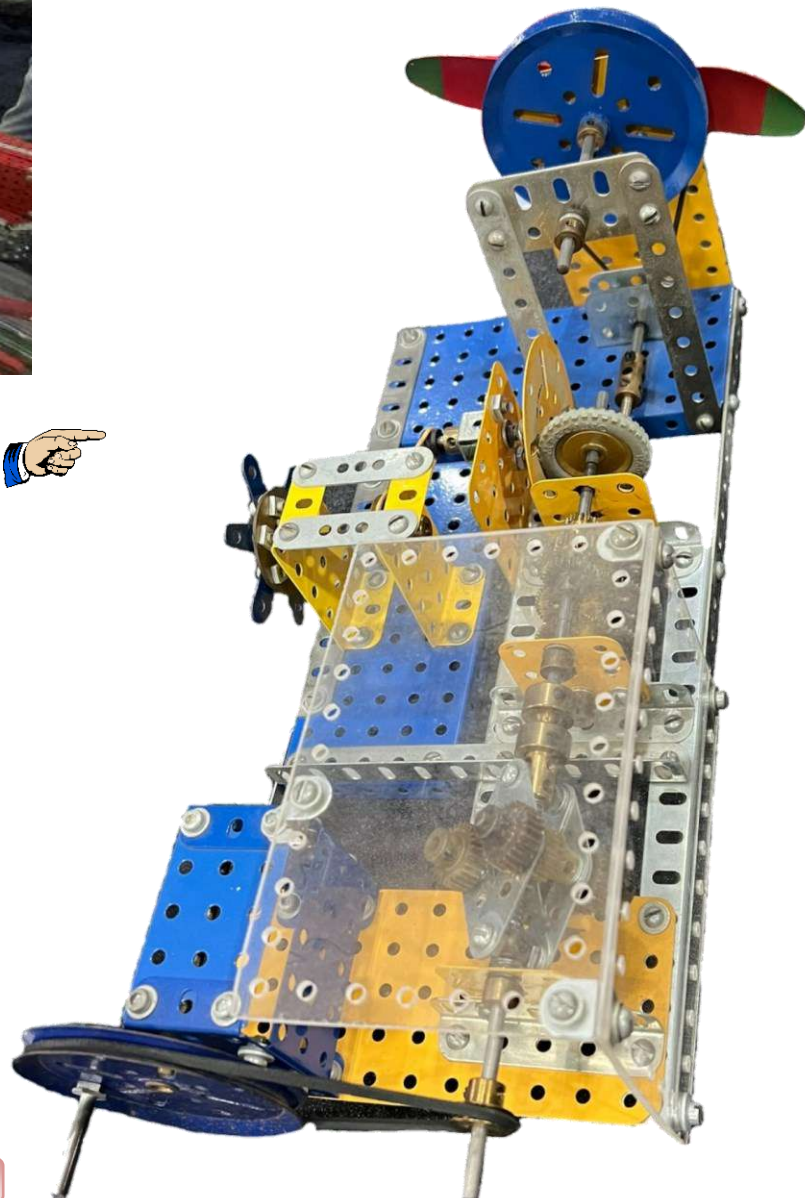
Dune Buggy (zinc, dark yellow and red) - constructed by Jack Hextell.

The model is 12.5" long and 6.5" wide and is driven by a high-speed 6v non-Meccano 1.5" cylindrical motor. A driving band on its output shaft connects to a 2" diam pulley on the input shaft of a small single speed and reverse gear box. The input shaft is a shortened keyway rod that allows the 2" pulley to slide along it. The gear box includes two narrow-faced 1" diam gears. One of the 0.5" diam gears is also narrow faced. A working stick-shift gear lever is located on the centre console. The model includes a differential using contrates and 0.5" diam pinions. Steering operates via a worm gear and universal coupling. The non-Meccano wheels are 2.5" diam and 1" wide with low profile tyres. The front wheels are fixed to 1" diam plastic bearings containing miniature ball bearings and freely rotate on short Meccano rods. The rear wheels are fixed to the differential axles by larger non-Meccano collars. Part No 120d shock absorbers support the rear axles.



Automatic 3-speed and Variable Speed Drive Unit

(zinc, yellow and blue) constructed by Warwick Lewis. The unit is based on a design by Harold Taylor of Yorkshire and was featured in a "Spanner" article many years ago in a Meccano magazine. This model has been modified by using narrow-faced pinions on the gearbox layshaft to reduce the travel distance between each gear mesh and also increasing the weight of the centrifuge unit to counter the resistance from the three compression springs within the centrifuge unit. At slow speeds, the action of the compression springs holds the mechanism in low gear. However, as speed increases, the centrifuge draws the layshaft inwards, causing the higher gears to be engaged. The friction drive feature of the mechanism is taken from a motor tyre on a pulley at the end of the layshaft. The tyre makes contact with a face plate on a shaft at a right angle to the tyre. The faceplate rotates at a speed which varies depending on the position of the tyre against the faceplate. For demonstration purposes, a Meccano propeller, and a 6-spoked narrow-strip fan which both rotate via pulleys and driving bands that are respectively connected to the gearbox output shaft and friction drive shaft were added.





Peter Stuart



Seven Segment Digit Display.
Displayed digits 0-9, changing every 4 seconds.



Musgrave Non-Dead-Centre Marine Steam Engine.
Two-cylinder compound with unique single crank mechanism. Avoids being stuck on dead centre.

Meccanograph. Built by my youngest son in 2000 and producing patterns at every exhibition since. Great for kids because they can take a pattern home.

Oscillating Fan. Built and displayed by my eldest son in 1990. Has been to every exhibition since.

Caterpillar Model 12 Grader - top
circa 1960, 1/8th scale. 6 speed forward and 2 reverse gearbox with working clutch and differential. Six-way gearbox in cab with independent outputs forward-neutral-reverse to give operator control of: Blade height (left & right), Blade angle, Blade side movement, Scarifier raise-lower, Front wheel lean.



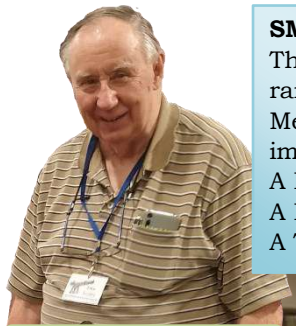
Watch Peter's Grader in action by clicking on any photo or the link below.
YouTube https://youtu.be/_ZgYVvhUObQ

Lindfield Challenge model.
Static display of my autonomous vehicle which achieved second place by stopping just 6mm away from the floor target after 6m of unguided travel.

Hornsby RSL. Georgie Burke, Mario, Graham, Pammi, Pauli, Matthew, Steve, Jackson, Bradley, Esther. In 'Round-the-table' order.

Standing- Steve, Mario, Georgie Burke, Graham, Chris, Pauli, Pammi, Jackson, Bradley, Esther.





SMALLER CRANES

These models represent the range of model building with Meccano parts and some imagination:

- A Dockside Crane
- A Railway Siding Crane
- A Track Mounted Mobile Crane

John Toohey

WHARF CRANE A Toplis Level Luffing Crane

This type of crane is commonly found on British sea ports and is of the type, built by a British company, Stothert & Pitt using their Toplis Level Luffing system. When a crane's jib is raised or lowered (luffed) to bring a load towards or away from the crane it also moves up and down. For a dockside crane though, designed to handle cargo as quickly as possible, you need to be able to bring the load as directly as possible between the ship's hold and the quayside. Level luffing means that as the jib is raised and lowered the load remains at the same level which makes handling far easier and so faster. There are other methods of achieving this, such as the 'horse head' crane, which is common also, and based on simple geometric principles. This crane is electrically operated from a 12V DC power supply contained in a cable RC box for slewing, jib raising/lowering, and load raising /lowering. The crane has Delrin sliding bearings for the slewing mechanism and has an automatic tensioning device for the slewing sprocket chain drive.



RAILWAY SIDING CRANE

This is a simple model of a manual crane, once commonly found at many country and suburban railway stations and goods yards. Its main interesting feature is the Sliding Bearing assembly to allow the crane to pivot around. This bearing assembly is made up from an engineering plastic, DELRIN, which is a new generation high load carrying, but low sliding friction. There are no rotational parts such as ball bearings or rollers supporting the rotational movement of the crane. The crane is fitted with self-loading/unloading hook assembly.

GANTRY CRANE

This model is based on an original Meccano Model No. 5.31 from the 1931 edition of the 4A (no 3) Instruction Manual. The crane is a hand operated Gantry of the type commonly used in small workshop areas and this model has been modified slightly from the original. The lifting mechanism is a rope system with a self-locking worm and pinion design, and an enclosed sprocket gear has been constructed to contain the travel chain and so prevent it from slipping off the sprocket wheel.

CONSTRUCTION SITE PIN JIB CRANE

Remote Controlled. This crane has been a 'development' model having been displayed and modified several times over the past few years. Powered by four 12V DC motors. Each of battery packs is 8 x 1.5V batteries. 8 channel remote control system is a proprietary system usually found in domestic lighting and power operating systems, but which has been adapted to provide the following functions:

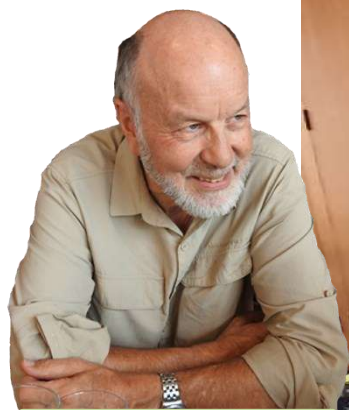
- Crane rotation – both clockwise and/or anticlockwise.
- Jib or boom raising and/or lowering.
- Heavy lift hook, raising and/or lowering.
- Light lift hook (currently on fly jib) raising and/or lowering.
- Main jib or boom in five demountable sections joined together by site fitted pin axles and spring clips. The jib sections are formed from custom made Meccano like components made from pre-painted Colourbond steel roofing sheets.
- Fly jib provides an adjustable boom extension to extend crane reach.
- Counterweight for the model is approx. 3.2kg.

Directly in front of John is...

WORLD WAR II VINTAGE 'Blitz' ARMY TRUCK CHASSIS

With Builders Yard "Back End" Crane Mounted. The scale of this model was limited by the use of 2" diameter (20a) wheels and road tyres. This created an interesting problem in how to replicate the truck cabin and engine bay cowlings in Meccano. The solution was the making of new panels from 24# zinc-anneal sheet metal which was folded and drilled to match Meccano-like components. Similarly, the engine bonnet and cowlings were hand made to match. The parts were then painted to match "Meccano Red" with Rustoleum 2X "Colonial Red" spray paint. The crane, whilst manually controlled, has load lift and jib luffing function as well as an extendable length jib.





Murray Tulett



- 1. Moline Plow tractor** in medium red and green. Scratch design. The prototype of this model was spied at an agricultural museum in Canowindra, NSW. This tractor, dating from 1920, is probably unique in having drive to the front wheels only. The model has a custom-made 5" PCD gear rack forming part of the steering system. A Meccano battery pack, motor and gear reducer power the large front wheels via a differential. There is also drive to an external belt pulley. Overall, the model is very closely in scale to the original.
- 2. 'Marklin' Excavator**, in Marklin's signature colours of light green, blue, and pink. Design by Marklin, with modifications by me. The name Marklin is shown on the cabinet containing the parts for this model, but I put Marklin in inverted commas because the manufacturer is in fact Metallus. The model seems impressive, and the rope systems work well, but the crawler tracks are for looks only: their design does not allow for actual travel. The slewing bearing is also weak. There is no slewing drive or travel drive. The Set as purchased (new condition) contained 4,976 parts. A Meccano Outfit 10, at the time when it contained the maximum number of components allocated to this Set, had approximately 3,000 parts,
- 3. Mobile Crane** in French blue, yellow and zinc, with the odd splash of light red. Design as per 1960s' Meccano Outfit 4 manual, with modifications by me. Hoisting and boom luffing are manually operated. The model has functional steering and a rocking rear axle to traverse uneven ground.
- 4. Twin Aeroplanes** flying around, in the Chinese Wisdom system colours of dark red, light yellow, and nickel. Scratch design. These craft represent the state of Australia's Air Force after paying for the AUKUS submarines. Activated manually, the two aircraft fly in rotation about a tower while dipping up and down, with their propellers turning all the while.
- 5. Table-Top Pendulum Clock**, in Blue, White, Zinc and Speed-Play grey. Scratch design. Possibly the only pendulum clock ever to NOT have an escapement mechanism; it uses twin cranks instead. The construction features artistic use of the strange Meccano Speed-Play plastic parts. The clock face has all three hands concentric on the one dial, achieved by Meccano parts without resort to cheating with non-Meccano parts. This time-piece can be adjusted for fast or slow running while the clock keeps going. This has been done before in clock-making, but it's a very rare feature.
- 6. Funicular**, in English Meccano blue, yellow and silver (aluminium). Scratch design. The best part about a funicular is the beginning, 'cause that's where the fun is.
- 7. German Half-Track Motorcycle 'Kettenrad'**, in army khaki and faun, complete with trailer. Scratch design. A fairly accurate model, incorporating a modern compact Meccano geared motor with included battery pack, driving the rear track sprockets via a differential. Components for the model are Meccano, Buz, Metallus, Ezy-Bilt and 'locally made', demonstrating our political correctness in practicing diversity in the selection of parts.
- 8. Steam Roller and Road Maintenance System**, in medium red and green. Scratch design, based on a roller on display in the hamlet of Old Bonalbo, northern New South Wales. The Air Compressor Unit and Tar Boiler are similar to those in an Outfit 9 manual from the 1950s.

- 9. Voiture de Maitre, French limousine** from the 1920s, in black and medium green. This is my version of an iconic Meccano model created by Dr Keith Cameron of the USA. My fenders and running boards are 1.25" wide instead of the usual 1.5" width dictated by conventional Meccano parts, and so I believe my model has improved realism of scale. The model has functional steering and fully realistic leaf springs, care of some custom parts. I used on-line photos of this car modelled by Dr Graham Jost to guide me in the construction of my effort.
- 10. Tugboat**, in medium red and green. Largely in line with the instructions from a 1950s' Outfit No. 8 Meccano manual.
- 11. Caterpillar Bulldozer D9**, in French blue, yellow and zinc. Scratch design. Motorised operation of machine travel forward and reverse, plus up/down of dozer blade. This model is about as large as one could create with Meccano's plastic crawler track system while keeping these same tracks in scale.
- 12. Windmill**, in medium red, black and zinc. Scratch design. Manual operation. Balance weights and flywheel make for a smooth operation.
- 13. Floating Crane**, large scale, in medium red and green. Design based on that in a 1950s' Outfit No. 9 manual but enlarged in all areas. Clockwork motor operation of hoisting.
- 14. Block-Setting Crane**, small-scale, in medium red and green. Design based on a similar crane seen in an old Constructor Quarterly journal, but with my own improvements.
- 15. Level-Luffing Long-Travelling Dockside Crane**, in black, zinc and French yellow. Scratch design. Manual operation of slewing, luffing, and hoisting are all performed from hand-wheels located at the very base of the crane. Work out how that can be done!!
- 16. Ford USA Army Ambulance**, from 1920, in matt black and army khaki. Scratch design based on a photograph in an NRMA magazine. Features functional steering and hydrolastic suspension.
- 17. Generic Army Materiel Truck**, in army khaki with orange features. Scratch design.
- 18. World War II General Motors (USA) Army Troop Carrier Truck**, in medium red, medium green and English Meccano blue. Design based on a model by Bernard Périer seen in a Constructor Quarterly journal.
- 19. Generic Army Truck**, small-scale, in army khaki and faun. Scratch design, roughly based on a model in a Meccano Army Series manual. The goods compartment is 13 holes long by 8 holes wide by 6 holes high. That's a challenge to create. The original Meccano design is 11 holes long by 7 holes wide by 5 holes high.
- 20. Tin Tin Pirate Ship**, in various colours. Design as per Meccano instruction manual.
- 21. Tin Tin Sea Plane**, in zinc and new age yellow. Design generally as per Meccano instruction manual, but modified where construction per the manual was impossible.
- 22. Tin Tin 4 x 4 Off-Road Vehicle**, complete with trailer, in Meccano medium red and green, with black highlights. Design based on a similar model by Bernard Périer seen in a Constructor Quarterly journal.
- 23. Perambulator**, in Metallus light green, blue and pink. Scratch design. Constructed as a hint to my son and daughter-in-law to get started on a family. The hint worked, and now my wife and I spend lots of non-Meccano time looking after two grandchildren. Be careful what you wish for!!!
- 24. Tractor**, small-scale, in dark blue. Design as per instructions. Meccano copy-cat system in metric dimensions, this kit purchased at the Australian Motor Museum, Adelaide Hills, SA.
- 25. Tractor and Trailer**, small scale, in orange, black and zinc. Scratch design. This push-along model has Ferguson-System steering with Ackermann geometry, a rocking front axle to negotiate uneven ground, and a pinion-type differential driving a rear PTO (power take-off).
- 26. Dump Truck**, in Meccano medium green and French yellow. Scratch design.
- 27. Dump Truck**, in red, blue, yellow and zinc. Design largely as per instructions. Meccano copy-cat system, with holes ½" pitch but with ¼" diameter plastic bolts.
28. Race Car, in orange and yellow. Design mostly as per Meccano instructions, but with my change to larger front wheels. Construction makes use of weird Speed-Play parts. This model has a pull-back-and-go drive.
- 29. Distance and position competition model**, in orange, black and white. Scratch design. This model came fourth in the competition but received consolation prizes for tallest entry and for best-looking driver.
- 30. Plate Roller**, in black and medium green. Scratch design, using all Meccano parts. This device proved popular with the natives last year, so has returned for more punishment of a certain strip of sheet steel.
- 31. Safari Vehicle**, small scale, in black, Metallus light green and army faun. Scratch design. This model features a swing-out full-size spare wheel, a fold-down tailgate, a radiator grill, headlights, taillights, a turning indicator lamp at each corner, wing mirrors, a steering wheel, bucket seats, off-road tyres, running boards, flow-through ventilation, and hydrolastic suspension.
- 32. Collection of quotations and witticisms** re Meccano, mounted on small individual display 'boards' constructed in Meccano. My original creations (for better or worse).





Mario Moszczynski

Ferry and Wave Mechanism

I built this Ferry years ago – 1970s Outfit 9 model 16 - and after a showing at a previous Annual Exhibition, it had been gathering dust at home. Meccano Ltd probably based the model on the MV *Mountwood* – a ferry which has ‘crossed the Mersey’ since 1960. After a major refit in 2001, the *Mountwood* was renamed MV *Royal Iris of the Mersey* and is still in service. Recently, while browsing the NZMeccano website, I came across a clever ‘Wave-action Mechanism’

<http://www.nzmeccano.com/image-95649> designed by the late Tony Parmee specifically for this model and decided to give it a go. Three cranks - port and starboard at the fore, and the aft centrally located - rotate at different speeds and in opposite direction. This gives the ferry a seemingly random swaying, surging, and heaving movement, much like the real thing on a rough day.

My version is an inch wider than the original (to accommodate the motor) and I’ve replaced the 1 3/8” Bush Wheels at the cranking points with the 1” variety which result in motions better suited the scale of the ferry. In hindsight, a more elegant solution might have been to swap these with Triple Eccentrics on the 3/4” stroke position, however, the ‘tab’ on the eccentrics would probably not have withstood the forces imposed on them. Currently there are two 2” strips lock-nutted to each bush wheel to manage the hefty load.



Matthew, Graham, Pauli, John, Steve, Jackson and Bradley



Melbourne Meccano Club members travelled from Deloraine in Tas, Adelaide, Melbourne, Benalla and Noosa. We all stayed at the Thornleigh Ibis Hotel and dined at the nearby Lee Gardens Chinese restaurant and the Hornsby RSL Club. The following pages are all MMCI members.

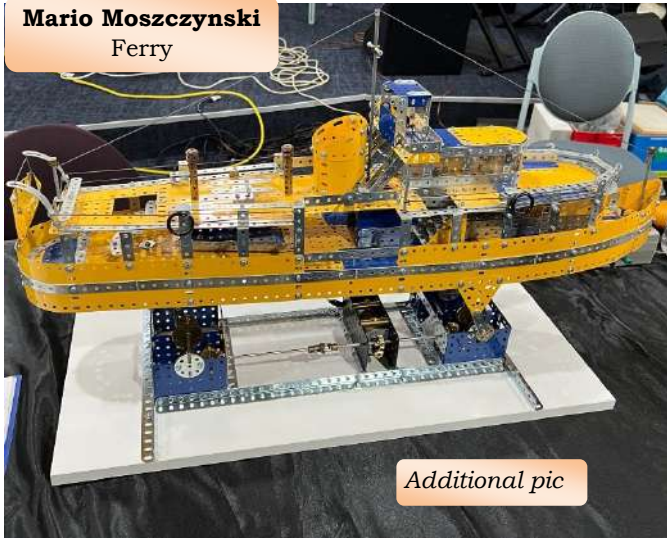


Matthew Auger



Giant Block Setting Crane built from twenty 1978/79 Set 5s, based on Supermodel Leaflet 4 design.

Mario Moszczynski
Ferry



Additional pic



Supermodel Leaflet 1
Car Chassis built
from original 1911-
1926 nickel era parts.

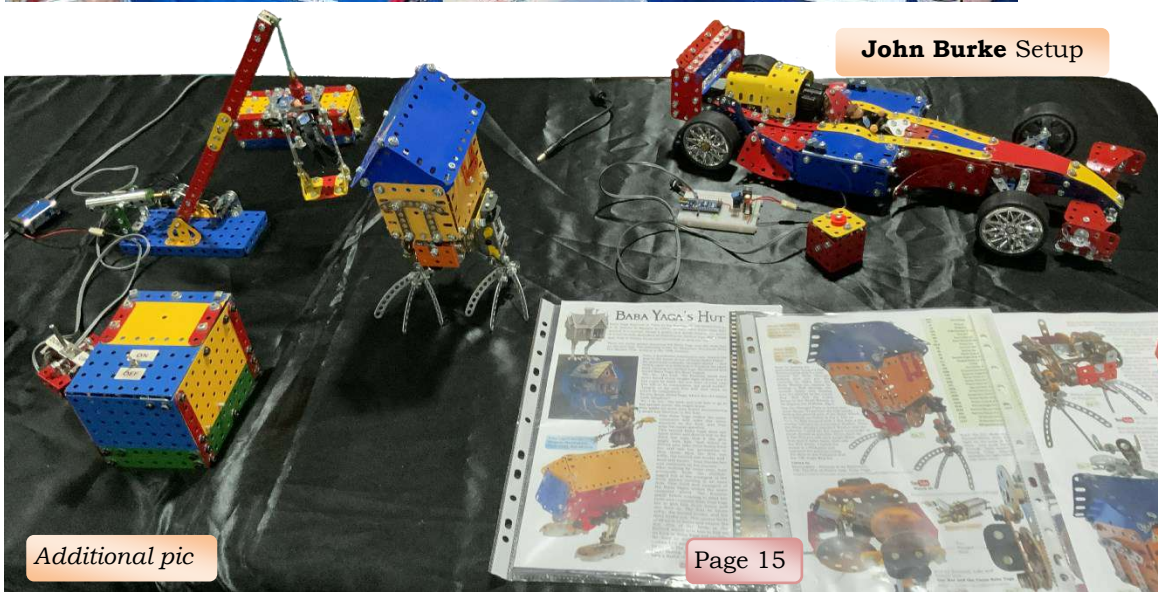


Matthew's own design
Guilloche Drawing Machine,
made mostly from modern era
parts.



Paul Dale and
Matthew Auger
At Hornsby RSL

John Burke Setup



Additional pic

Page 15





John Burke



Space in the boot of my car was limited due to a certain other Meccanoman's models which even included the kitchen sink! So the [NebulaZ](#) was left in Benalla and I exhibited mainly small 'hands-on' models like the [Useless Machine](#), [Theramin](#), [Rocket Launcher](#), Treasure Chest, [Nut and Bolt Sorter](#) and [Wall-E](#). I also had my recently completed [Baba Yaga's Hut](#) and took great delight in telling the story of the Baba Yaga witch much to the horror of parents as on reflection, perhaps I was a bit too theatrical and frightened a few kids. LOL. My [Formula 1 car](#) had an Arduino computer that controlled the revs of the French motor which had a plastic pulley with 3 wires that made a loud noise as they brushed past the yellow flexible plate. The faster the motor went, the higher pitched the noise was. The difficult challenge was to tune it to play Advance Australia Fair which it did surprisingly well albeit slightly off key. You can click on the words above to see the videos or use the links below.

- [NebulaZ](#)
- [Useless Machine](#)
- [Theramin](#)
- [Rocket Launcher](#)
- [Nut and Bolt Sorter](#)
- [Wall-E](#)
- [Baba Yaga's Hut](#)
- [Formula 1 car](#)

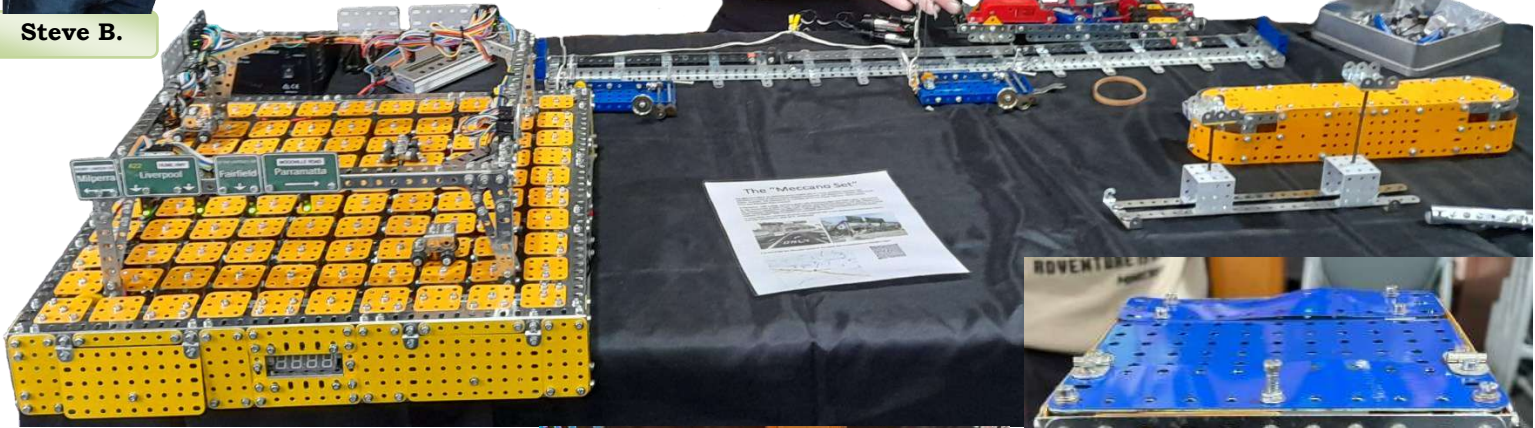
- <https://youtu.be/AxhbN4d98pI>
- <https://youtu.be/gjc2Hjan4pE>
- <https://youtu.be/D8UzeBVABL8>
- <https://youtu.be/6s6bYt3jcO4>
- <https://youtu.be/zci18U5Xje4>
- <https://youtu.be/uDrcGZTfZ0g>
- <https://youtube.com/shorts/aZG1AWlslg0>
- <https://youtu.be/oYkTzBPCXhg>





Steve's model of the "Meccano Set" traffic light intersection on the Hume Highway, with vehicles crossing in both directions. Traffic lights and motion sequence

Steve B.



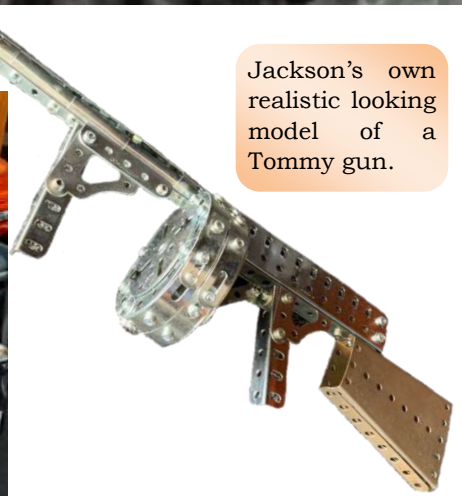
Bradley's vending machine (1970s set 8 model) dispensing boxes of Smarties lollies. Bradley had good sales and went through over 40 boxes at the expo.

Bradley B.



Jackson B.

Jackson's reversing train model from 1970s set 5 manual with signals activated when the train passes.



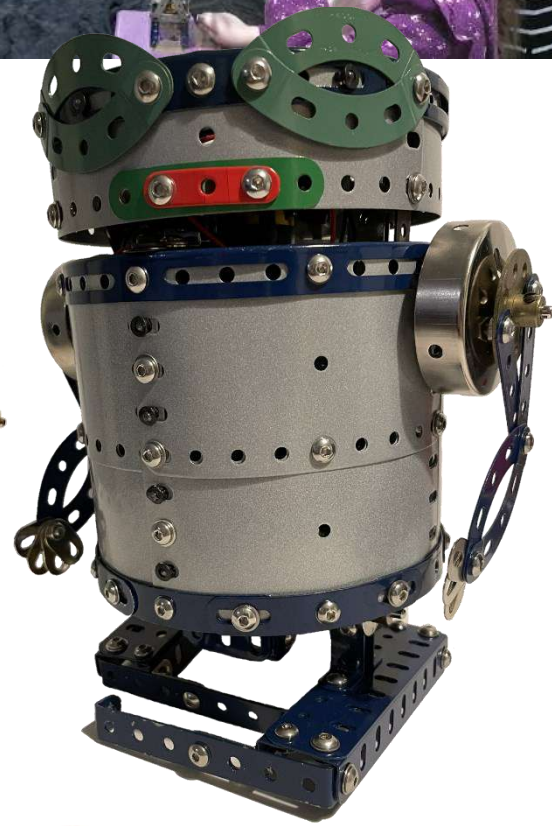
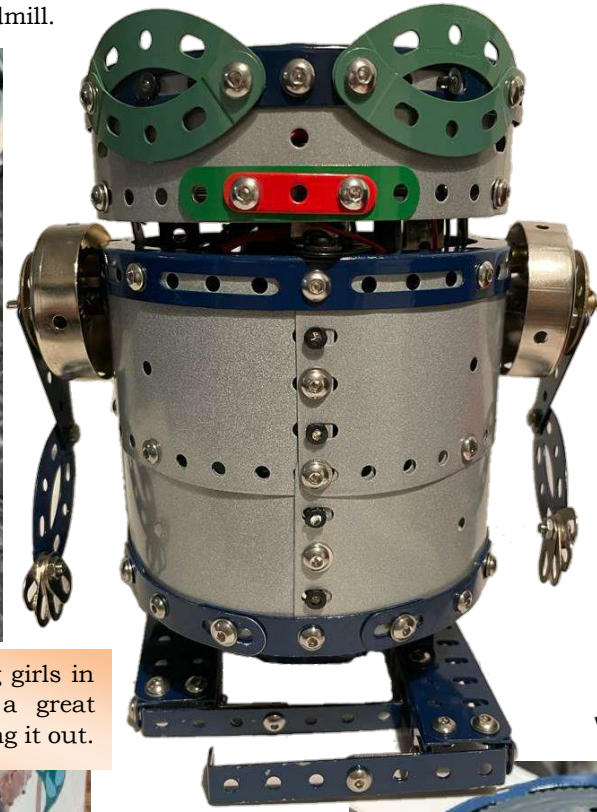
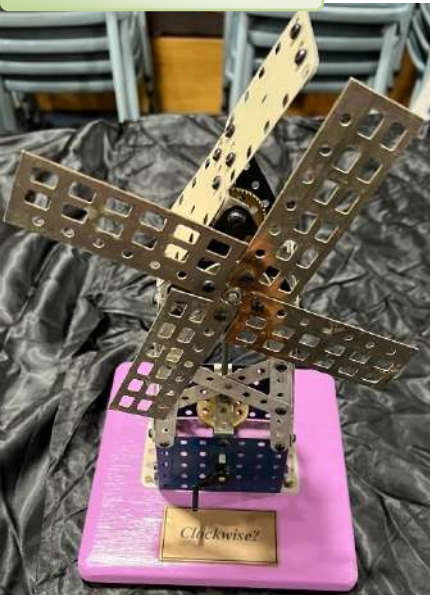
Jackson's own realistic looking model of a Tommy gun.





Paul Dale

Windmill This model is based on a mechanism by Michael Denny that was featured in Constructor Quarterly #16. This windmill's sails only turn anticlockwise when viewed from the front. This is the right and proper way for such windmills to rotate, unlike most portrayals. The model has a plaque "Clockwise?" on its plinth. One child admitted that they didn't know which way was clockwise, at least until they'd played with the windmill.



One pair of young girls in particular spent a great deal of time figuring it out.



CLICK ON THE IMAGE



It was satisfying to watch children turning the handle and then prompting them to turn it the other way. "No make it turn the other way. No, the other way."

YouTube <https://youtu.be/xKpaMODbeu4>



Robot. This model is based on Andreas Konkoly's Supermodel No. 58 "Family Walking Robot No. 2". The robot has flashing lights down its front and walks along while moving its arms and slightly shaking its head. Turning it on when unsuspecting visitors walked past the table surprised a couple but mostly delighted the children.

DeeWhy beach
Graham, John,
Pauli, Pammi





Graham Jost

I brought along four very different models to the Show. The first two have been shown in Sydney before.

1. Pedalling Pete is a freelance cyclist who always does his best to achieve whole-day continuous running. In this he succeeded admirably. Pete has travelled literally many tens of kilometres since his debut in 1997. His placard makes the point that the canvas on his tyres is beginning to show. In fact of course it's the paint on his tyres which has been totally removed by the rollers he is running on!

2. Consul, the Educated Monkey, performed magnificently, providing unerringly correct answers to challenging feats of multiplication, but I had to educate folk a little in advising where to place the feet in order to obtain an accurate answer. Then there were the smartasses who wanted him to multiply fractional numbers together. Surprisingly, you could interpolate between the whole numbers to find approximate answers in some cases.

3. My Mini-Hex, a compact version of my original Hexcalator ping-pong ball roller, ran well, with balls departing the scene only on start-up. Otherwise, it provided a day-long trouble-free spectacle. Although running with 40 mm balls in place of the original's 38 mm, I was very pleased with the performance of this model, due largely to running at a lower speed: about 16 rpm rather than the original 20 rpm. The lower speed allows more time for the larger balls to exit cleanly onto the flip-flop at the top of the model.

4. My 9-spool flat-braid braider is my most recent (# 11) braiding machine, and it runs like the proverbial well-oiled sewing-machine! Once onlookers realised that an output was being produced, it was all oohs and ahhs. The fact that the spools moved around the machine from carrier to carrier was also appreciated when realised. But as I dared not leave it running unsupervised, it did have periods at rest. I managed to dispose of its entire output for the day though, to children of all ages!

See a video of Graham's display here.



YouTube <https://youtu.be/HPxwcLfzYTQ>



Think Meccano. Think beauty.

