



NZFMM MAGAZINE

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INSIDE

- Convention 2021
- 3D Printing basics
- 4-6-2 Tank locomotive

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Cover photo of Alan Bensley by Jenny Setchell

From the Editor

Morena, one and all,

What a great convention it was. All credit to **Reg Barlow** and the WMC team for putting on an A1 show at Waikanae. The number of exhibitors must have been a record but for me the diversity of models is what made it special. From the Meccano Manual cover classic crane from **Keith MaCallum**, through **John Freer's** award winning excavator and **John Stark's** meticulous horology, to **Max George's** ever-expanding Tricky Trax, ingenuity flourished. It was refreshing to see micro-processors are inveigling their way onto the scene, with **David Couch** offering multiple manifestations. Others also used Arduinos to good effect, if the wide-eyed admiration of many small children was any guide. Regrettably space does not permit me to list all the marvellous models on display, but it was pretty clear Meccano is alive and well. A huge thank you to everybody concerned.

The AGM of the NZFMM was interesting. The clearly strong feelings of some members wanting a formal Constitution clashed head-on with those for whom the present *laissez faire* governance was perfectly adequate. A big 'thank you' to **Chris Morton** for his three years service as NZFMM President. Changing of the guard, with **Reg Barlow** taking over was officially sanctioned. Hopefully he will steer us through this issue with the same firm hand he showed in herding the Meccano moggies at Waikanae.

This issue has numerous convention images, arranged in no particular order. **Bruce Durdle's** excellent talk on 3D printing is available for aspiring 'prototypists', together with a short introduction on CAD software to keep you occupied over the forthcoming winter.

Best wishes,
 Richard.

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NZFMM National Convention 2021

By

Reg Barlow WMC, Convention Convener

The realisation came to us quite early that the Convention was going to be in the hands of Mr. Covid, but we pushed that thought away and started planning. We had scouted several venues, but settled on the Waikanae Memorial Hall. With acceptable charges, one hour drive north of Wellington, ample parking, adjacent to the Rail station, good restaurants and of course the brilliant Kapiti Coast, it ticked all the boxes. And not forgetting that I live only 10 minutes' drive to the Hall. The timing had been decided by a survey carried out through our magazine for the best possible dates.

I had decided early on that communication was going to be vital, as Covid, amongst other pressures, would be distracting to possible attendees, so I set up a blog through the five Meccano clubs around NZ, and kept all the clubs up to date with planning, photos of the venue, Kapiti tourist spots, trying to whet the appetite of the MeccanoMen (and woman!). This was done via the Internet, Facebook, emails etc., Google maps and of course, our Magazine.

The registrations started trickling in, most of them well past the supposed cut-off date, and as we all know, herding Meccano Men is like herding cats, (We were still receiving registrations just days before opening day!) But we fitted you all in, but with a lot of gnashing of teeth and pulling of hair. We had set up a small committee, experience tells me that too many voices leads to the classic expression; "A camel is a horse designed by a committee". Special thanks must go to **David Couch** for running the official spreadsheet, registrations, and initial finances. We could not have had a successful convention without his knowledge and expertise.

Hall hire was through the KCDC and for those who have dealt with bureaucratic councils you will appreciate the pedantic and frustrating systems that they seem to operate. Resource consent applied for and obtained, Temporary event management plan submitted and approved, Public liability insurance paid for, Hire charges and bond paid. Advertising kicked in, radio interviews and ads, A Facebook page and large posters around town. The WMC got behind it all and started dropping flyers at lots of suitable place around the greater wellington region, with ads in the local newspapers.

Leap ahead to the day before, we had access to the Hall from the Thursday evening, and the team came together, as well as early arrivals, Tables laid out by the instruction of Sergeant **Stan Baker**, table covering rolled and placed out, (thank you MWT for the loan), power cables run, all tested and certified by a local electrician; vital these days.

Friday dawned bright and clear, Welcome packs all in place, name tags waiting and we were away! Models all in place, and lots of tweaking being done, along with a healthy buzz of conversation. Greeting of old friends, making new ones, Another Meccano convention was underway.

By lunchtime we were all ready for the "Show and Tell", and what a fantastic range of models on display. A feeling I picked up was that they were all so proud of their creations. I think this is something that only another MeccanoMan can appreciate.

After this, our guest speaker, **Bruce Durdle** from the MWT club, gave an extremely informative talk on 3D printing. He had his printer there, so we were able to watch one part being made. The realisation soon came to us all, that with the right information, we could start creating, not only similar Meccano parts but parts of our own design. This was exciting. More tea and coffees were consumed as well as a good range of biscuits, and we also fitted in our AGM as well.

Saturday arrived and once again great weather, this is Kapiti after all. Last minute fiddling, and the doors opened to the public at 10am - and in they came! With a steady stream on both days, totalling over 1000+ total, we were happy,

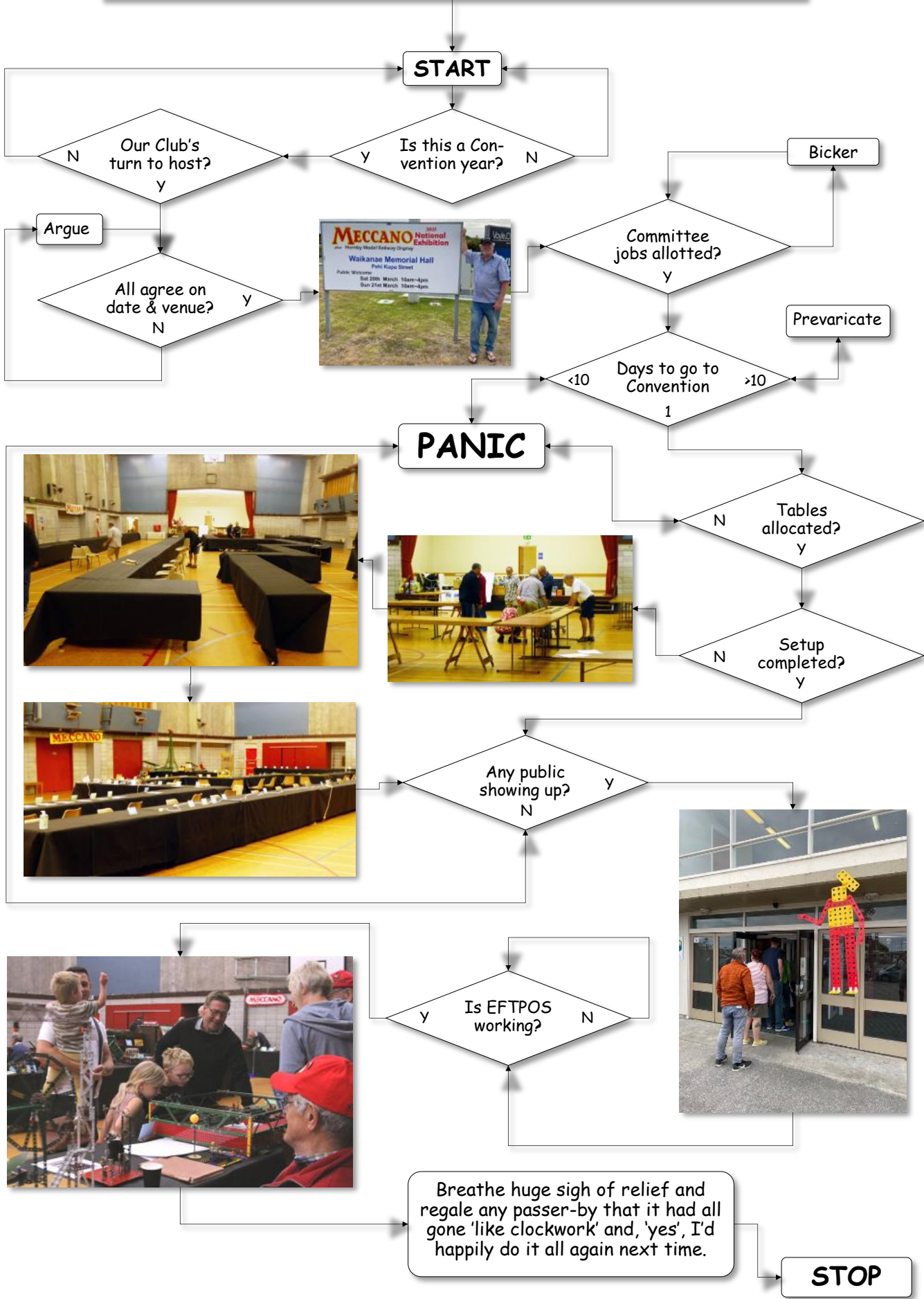
Peter Hancock had six tables set up on the stage where the budding engineers with the Mums or Dads can use Meccano and make set models. There were always people there. I just hope that some of them will take up the hobby. We had many sets and parts for sale as well.

As convener, I was kept busy during both days dealing with a myriad of issues; blocked toilets and hand basins, power failures, people who refused to pay, we kept our prices at family friendly, \$5 entry and max of \$15 per family. We had one group who had mum, dad, three kids plus two sets of grandparents who wanted to pay \$15.00 only. I smiled and said "Enjoy!" Through gritted teeth.

Next challenge was the clear down on Sunday after the doors closed at 4pm, I only had the Hall until 7pm, or would have been charged more, and with the super work by the whole team it was all dismantled, stacked, cleaned, swept by 6pm, What an effort and I can only say Thank You every one.

Yes it was a very successful convention, the next one in 2023 is yet to be decided, but somewhere around New Zealand there will be a venue to be filled with enthralled children watching Meccano models working and being told that "**Meccano is more than Just a Hobby.**"

A flowchart on how to survive a Meccano Convention

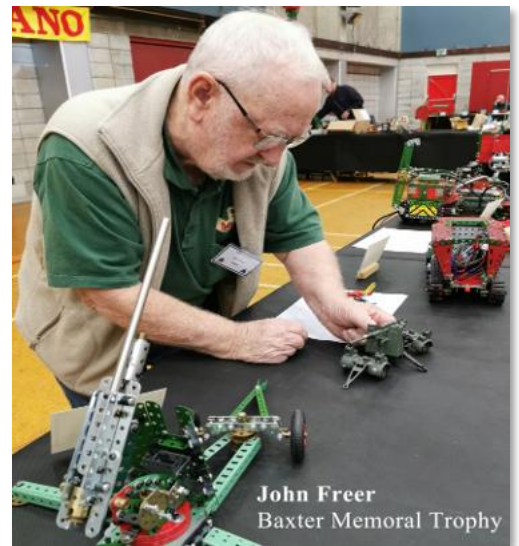




...a cast of thousands



Max George
Tricky Trax
1st Place Public Vote
2nd Place Exhibitor's Choice



John Freer
Baxter Memorial Trophy



David Couch
Rubik's Cube Solver
3rd Place - Public Voting



Alan Bensley Christchurch
Crawler Luffing Crane
11.2

Alan Bensley
Luffing Crane
3rd Place Exhibitor's Choice



Richard Feltham
Digital Meccanograph
2nd Place Public Vote





Top left: John Stark's exceptional grandfather clock struck the right note.
Top right: Simon Moody and Trevor Green perform a delicate balancing act with 'Cranky'.
Left: Rick Vine and his minimalist Meccanograph. Bonus points for the chronologically matched book supports.
Right: Paul Roberts cries his wares for Dr Meccano, podiatrist to the gentry.

The Wellington Meccano Club- Meet ng

Reporter – Max George

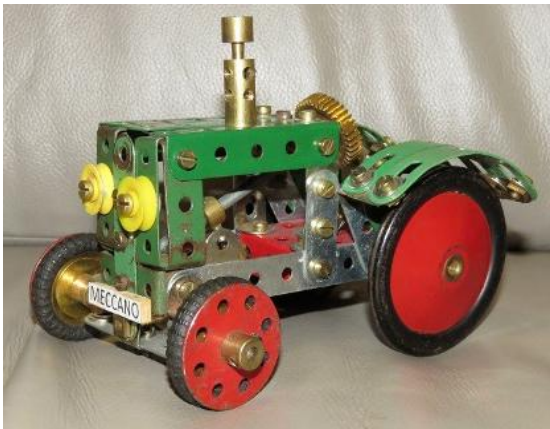
Meet ng Date: Friday 6th March 2021 at 7:30pm at Reg Barlow's place, Paraparaumu.

Meet ng: This meet ng was mainly to go over how the preparat on for the Waikanae Convent on was progressing.

Model Building:

The theme for the meet ng was something for Con-vent on.

Stephen Westmoreland: Brought along four 20th century tractors – based on model plans by Bruce Geange (MWT), Small Meccano models with wheels or tracks published July 2018

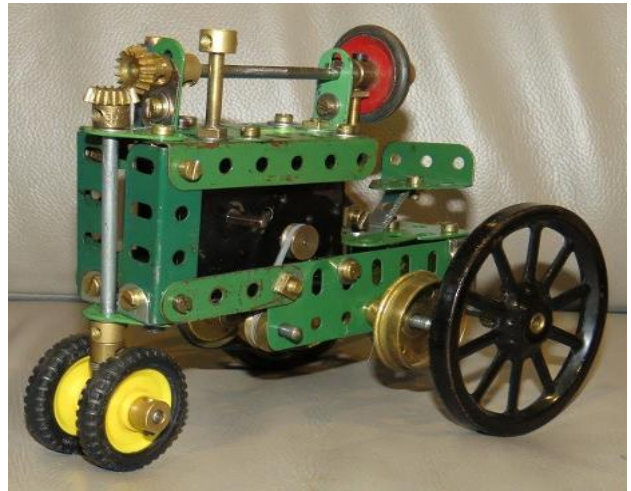


McCormick Deering Tractor



Fordson Tractor

Right bottom: **Ross Quayle's** device for removing warts from top of head – a wart chair, after W Heath Robinson.



John Deere Tractor



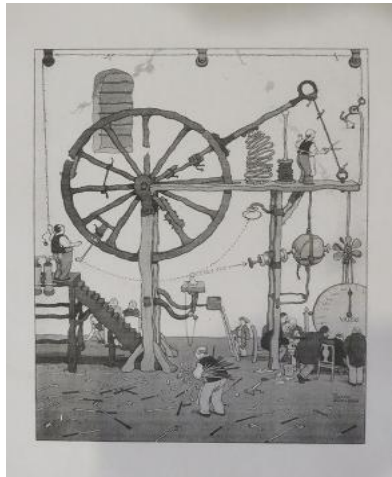
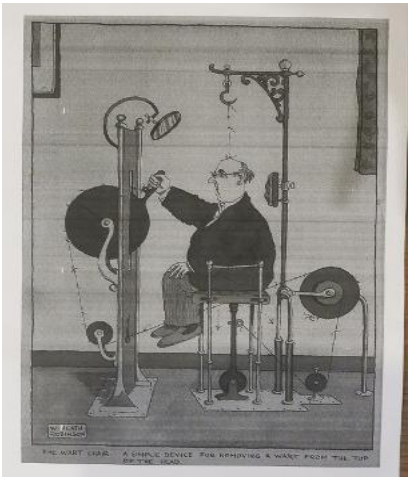
Unipower Timber Tractor

Ross Quayle: Is making a tribute to Heath Robinson by building three examples for the convent on.

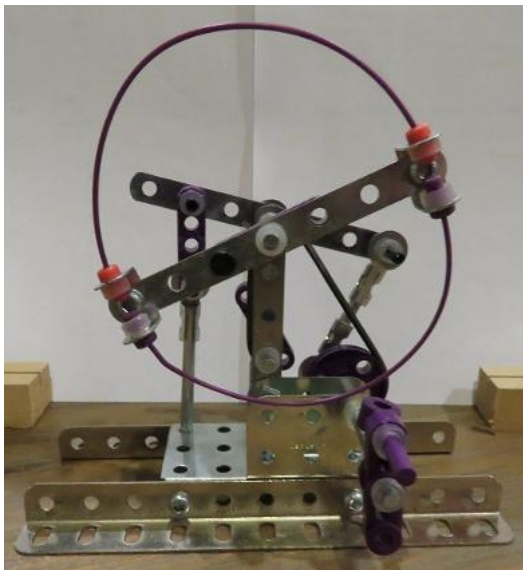
(See Illustrat ons overleaf.)



Ross' model.



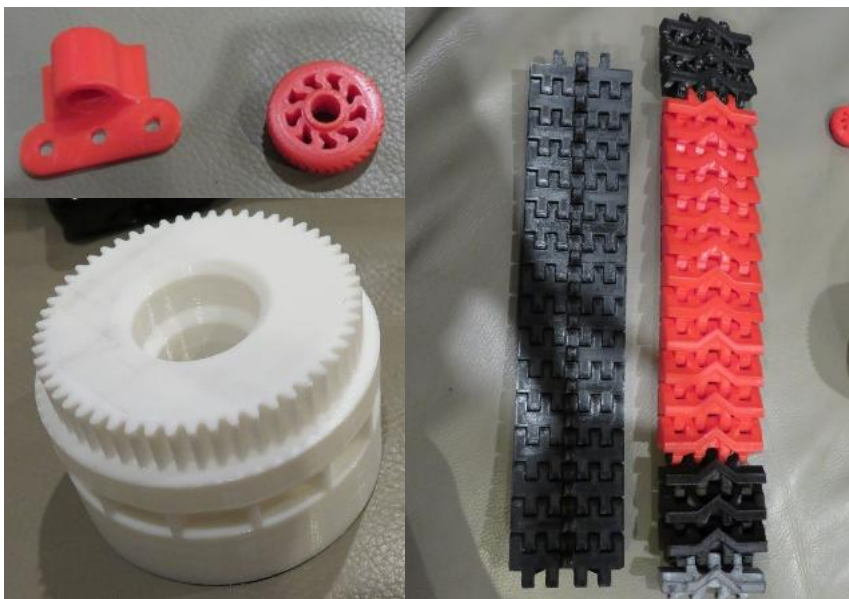
Brian Peterson: Brought along a couple of models. The first being a beam engine from the Crazy Machine set 1513.



Left : Beam engine. Brian's second model (*below*) was a racing car with steering and rubber band suspension.



Stan Baker: Talked about his 3D-printer and the success / failures he had managed. He showed examples of what he has printed.



Caterpillar Track can be made any size and linked together.



Next Meeting:

The April meeting will again be at Reg Barlow's place on Friday 16th April at 7:30

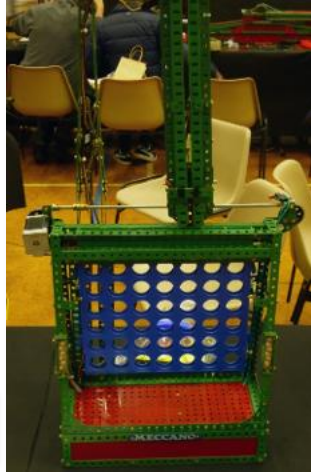
Computers at the Convention.

By Richard Feltham MWT

A feature that stood out from this year's resoundingly successful National Convention was the increasing number of models that used a microprocessor or computer in their design. For example, Nelson's **David Couch** had four separate models that relied on **Arduino** microprocessors to function. His 'Rubik's Cube Solver' is a classic example of the next-level modelling that can be achieved when you add servos or stepper motors. Not only do you then have the ability to make incrementable, repeatable movements but it paves the way for sensor and user feedback, beautifully demonstrated by his 'Connect-4' game, where the player competes directly with the model. David's home-grown software is able to control both the logic of the response as well as the directing the physical movements of the machine. Likewise,, his obstacle avoiding robot, 'Donut', showcases what you can do with relatively simple circuitry.



Above: The Donut robot
Right: Connect 4 game



Another Arduino aficionado is MWT's **Bruce Durdle**, (*below*) whose digitally activated 'Golfer' who scored a hole-in-one with every shot, used a '**Teensy**' variant of the Arduino range of microprocessors, to drive the various motors, in response to several different classes of sensor; ultrasonic, infra-red proximity and optical interrupters.



I also took a slightly different approach by using a 20 year old laptop to drive stepper motors and solenoids via the printer port, to create a 'Digital Mecanograph', (*above*) capable of producing A3 sized line drawings, specified in G-code, the language of CNC machines.

This is in no way an attempt to disparage the ingenuity of the exhibitors, like **John Freer** and **Hugh Ramage** who used more classical control methods for their cranes, looms, dredges and excavators. The complexity of some of these is mind boggling, but will always be limited by the need for mechanical connections and analogue switches.

This leads on to the really significant point for me, that apart from **Paulette Morton's** 'Spiderbot' there were no commercially produced Meccanoid 'robots' on display. I wonder if this reflects that in some way they are contrary to the underlying philosophy of Meccano, which revolves around the idea that you have to use your imagination to create a model, machine or whatever, from a set of standard parts. Unfortunately the modern trend of sets that contain model-specific parts, *a la* Lego, deviates from this. Appearance trumps function. Creativity and vision takes a back seat to building a specific, emphatically realistic object.

Although I am convinced he would have embraced digital control, St Frank would definitely *not* have approved of this proliferation of single-use parts.

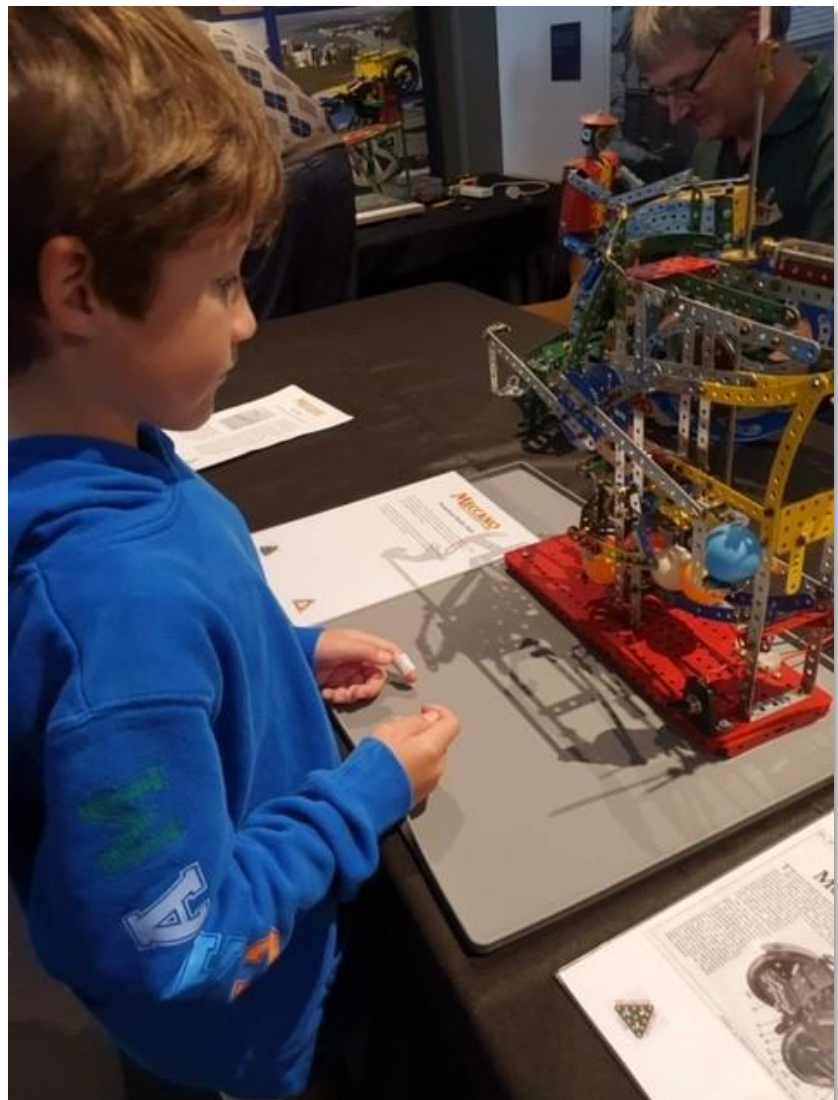
Viv Alexander (MWT) provides a postscript to his article in the February issue on dating an old Meccano set.

Hi all. Since the appearance of my last two articles, I have been in touch with **Michel L'Homme**, who is very well versed in all things Meccano European. He answered my query, and pointed out some discrepancies and errors.

First, re. the sets for sale in Germany, although everything else screams 1949, the wheels weren't introduced until 1953/4. The correct ones should be black and green. Why anyone who used the sets so little would have changed them beats me.

Re. the other set, first, the little label is an ad for Meccano. It basically says "Meccano sets for sale from 7 Marks." I have seen a similar one for the G.B. market. The box is for a set 5. However, the contents are a complete set 6. Some clever individual carefully arranged these parts in the smaller box. Apparently, all set six boxes have an upper tray. I made the mistake of only checking the contents. The extra contents must have been added at about the same time as the original purchase, as the finish on all such parts as No.'s 52, 53 and 54 all have the same unusual black finish. Finally, the date. I have now seen evidence that the collar and worm with set screw were introduced in 1912, not 1911 and the other parts were changed to set screws in 1913. (The worm was first illustrated in a sales leaflet dated 7th Aug. 1912) Which only goes to show that even experts can make mistakes. I'm glad. I've never claimed to be one!

So, in conclusion this set is a 1912 No. 6 in a No. 5 box, for sale in Germany. Many thanks Michel.



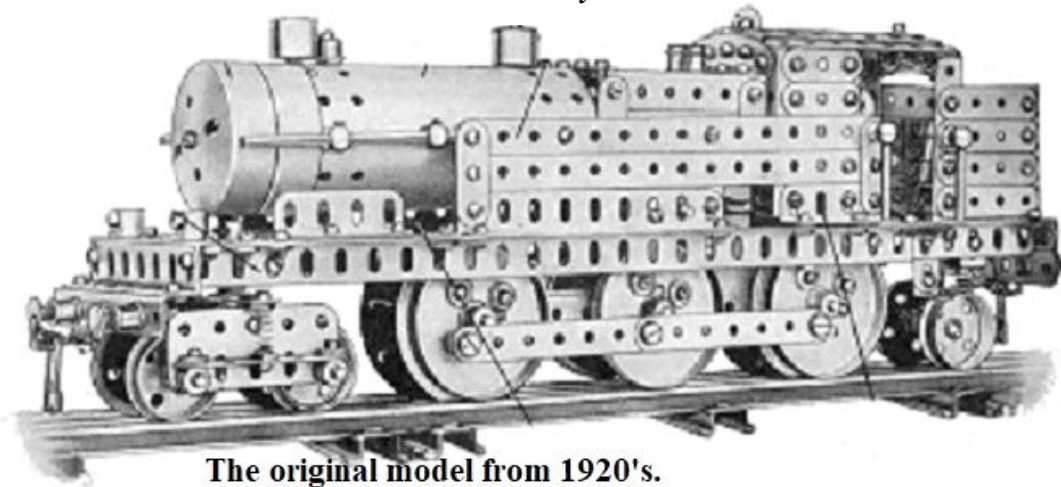
BREAKING NEWS

The Christchurch Meccano Club will be hosting the 2023 Biennial Convention.

Start planning your trip to the Mainland now.

THE 4 - 6 - 2 TANK LOCOMOTIVE.

By
David Glenday



The original model from 1920's.

Continuing a Railway theme for the past year I have built a variation of this popular model dating originally from the 1920's - e.g. refer to "Alans Meccano Pages" [<https://www.alansmeccano.org/models/pic13.htm>].

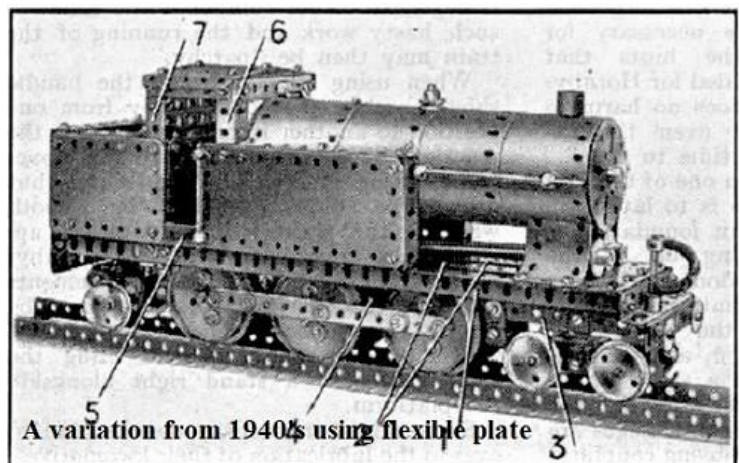
The history and evolution of the 4-6-2 "Pacific" class engines is interesting with plenty of on-line information including the part New Zealand Railways played in their development.

My model had to meet two criteria. First, to fit one of the gauges of the tracks at Nelson's Model Engineers Society track at Tahunanui, [see also <https://nelsonmodellors.org.nz/>] and secondly that it be powered by a No 1 clockwork motor emulating the original model.

The Society tracks have several gauges and I chose a narrower at 2.5" or 62mm between rails. This allows the model to retain the original dimensions, with the wheelbase fitting under the cylinder etc. and allowing the wheel axles to fit the motor sides with clearance for reduction gearing. The bodywork bolts to the motor using plastic spacers.

My spare No. 1 motor is second hand and somewhat tired, never the less with 12:1 reduction to the centre driving wheels it will travel about 4.5 metres on a smooth surface. The model weighs 2.2 kg. All 6 main wheels should be in contact with the track, and for the connecting "rod" to be fixed - in my case firmly bolting the two 7 hole strips together and the bolt to freely pivot in the driving wheel.

Finally I used plates rather than strips, whereas the original model pre-dated the arrival of plates. Overall it is an enjoyable model to build and a size that sits well on your modelling table, and vindicates the original designer, and its subsequent popularity.

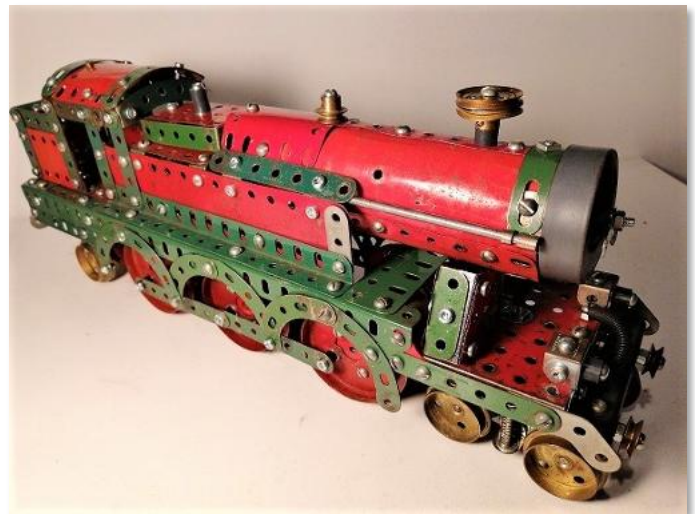


A variation from 1940's using flexible plate





At Engineers Society tracks Tahunanui



David Glenday explains his No #1 clock-work powered 4-6-2 Tank Locomotive built to run on the Nelson Model Railway 2.5" outdoor track. A timeless Meccano classic.

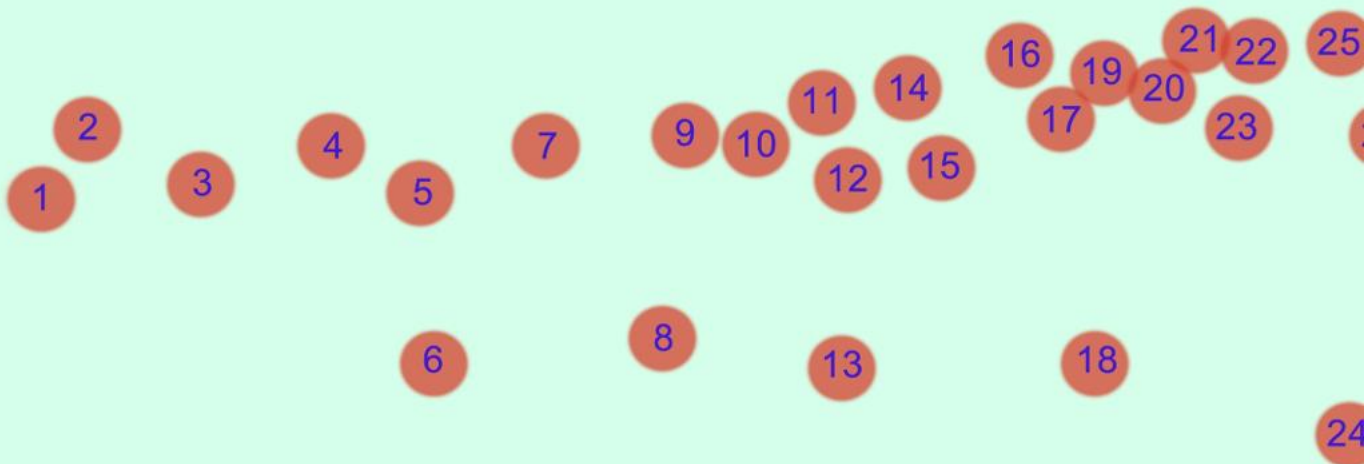


60/15 to centre driving wheels.

57/19 at motor.

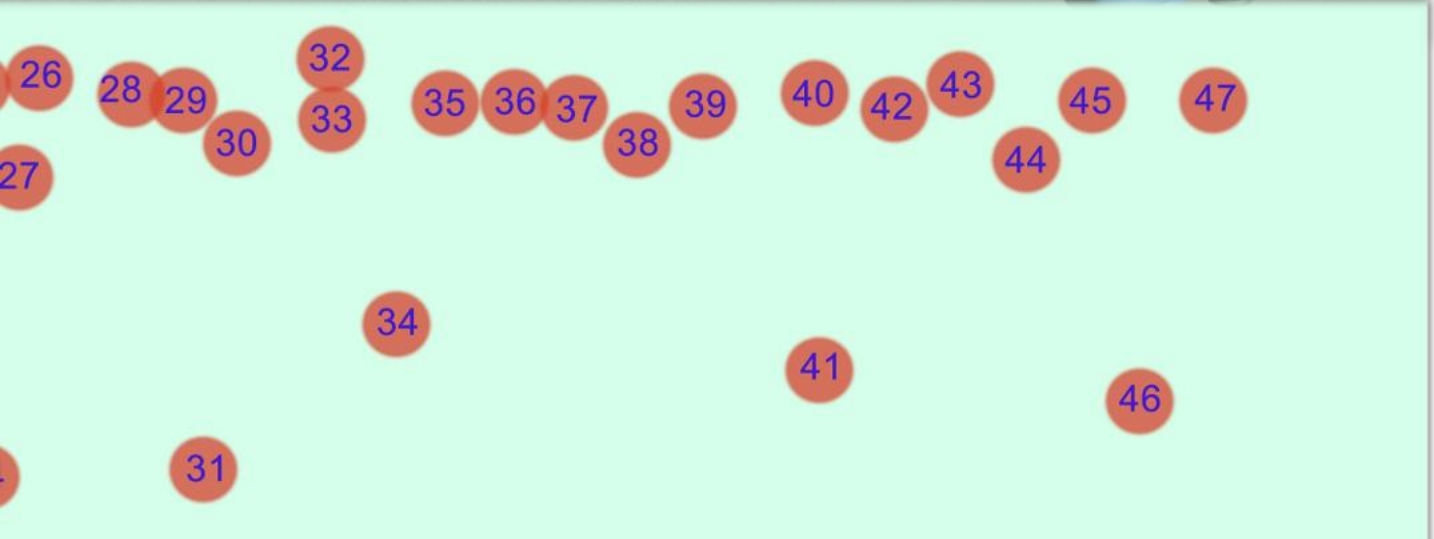
Subframe from motor.

New Zealand Federation of Meccano Modelers held at Waikanae, 19



- | | | |
|-------------------|----------------------|---------------------|
| 1. Nancy Jones | 9. Ross Quayle | 17. Clive Nicols |
| 2. Bryan Jones | 10. Mrs Wrightson | 18. Alan Bensley |
| 3. ? | 11. Graham Wrightson | 19. Bruce Durdle |
| 4. Barry Babbage | 12. Holly Wrightson | 20. Richard Feltham |
| 5. Wayne Blakley | 13. Brian Hickson | 21. Reg Barlow |
| 6. Keith McCallum | 14. Barry Humphries | 22. Stephen Styles |
| 7. David Wall | 15. Irene Collins | 23. Max George |
| 8. Stan Baker | 16. Kegan Wrightson | 24. Chris Morton |

Modellers Biennial National Convention 18th to 21st March 2021



- | | | |
|--------------------|--------------------------|--------------------|
| 25. Mike Howse | 33. Grace Pluck | 41. John Freer |
| 26. Roland Jaspers | 34. John Jordan | 42. Trevor Green |
| 27. Barry McKey | 35. Paul Roberts | 43. Daryl Anderson |
| 28. Peter Winter | 36. Peter Hancock | 44. Kaye Clark |
| 29. David Couch | 37. Brian Peterson | 45. Jeff Clark |
| 30. Rick Vine | 38. Kerry Westmoreland | 46. Snowda Barlow |
| 31. Simon Moody | 39. Paulette Morton | 47. John Stark |
| 32. Neil Pluck | 40. Stephen Westmoreland | |

Meeting of the Auckland Meccano Guild February 2021

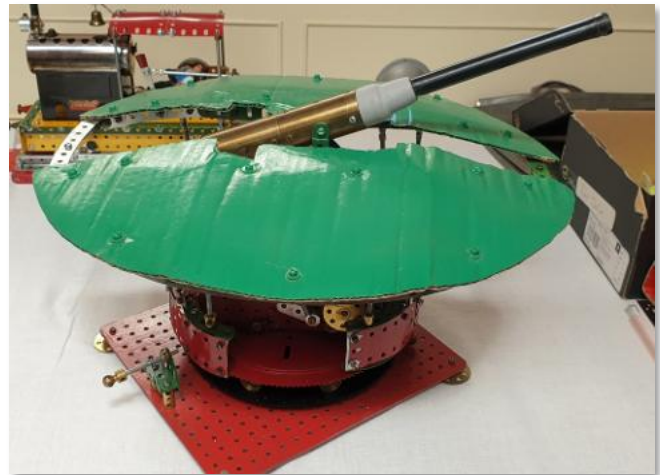
The meeting was held at the home of **Les and Shirley Megget**, Papakura.
Apologies : **Gary Higgins**

Rick Vine had made a vertical steam engine based on a Meccano Magazine model of January 1946, he had also made up an Army half track vehicle based on the French Meccakit 0200 Armee instructions.

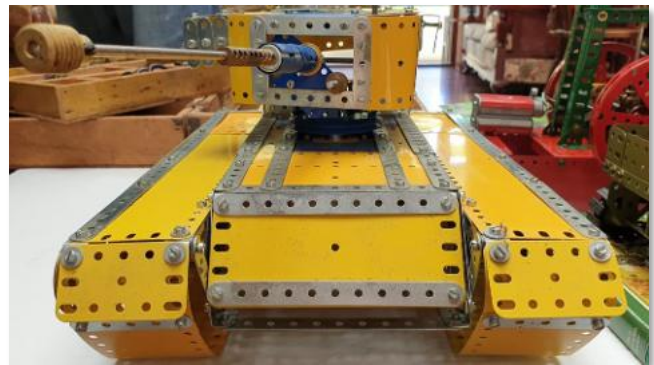


William Irwin had brought along a selection of parts for sale, plus overseas magazines for club members to peruse.

Gerald Hart has been researching the Disappearing guns at North Head fort in Auckland and had made a realistic model which would spring back into firing position after loading. He had used some non-Meccano supplies to add realism but I am sure **Frank Hornby** would have approved.



Anthony Caldwell had built a tank using the model plans from a set 9.



*Left: Rick Vine's steam engine. Right: Disappearing gun by Gerald Hart.
Right bottom: Tank from No 9 set by Anthony Caldwell.*

Kegan Wrightson had the beginnings of a German WW2 railway mounted gun named 'Dora'. He had purchased a book about the gun from eBay in German. One hopes he is able to read it! Kegan also had a few spare parts for sale and a Hornby Companion book volume 7a.

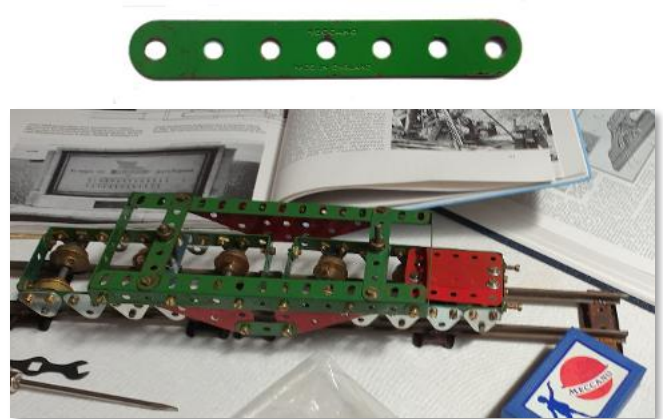
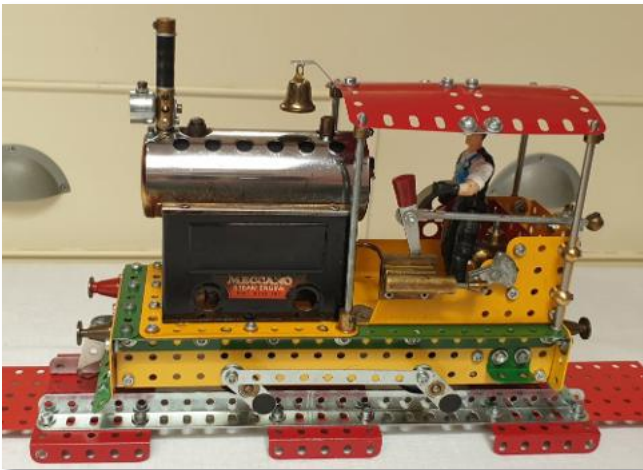
Les Megget has completed his model of the **Hikitia** floating crane, with amazing detail all moving parts were well represented using the Meccano system with individual systems such as vessel steering, steam engines and crane working performing as expected. Another masterpiece from Les.

Neil Carey attended but he has not yet built another model, he has converted his J class locomotive to JA class.

There were also a couple of boxes of spare parts up for grabs and discussions about the upcoming convention. It appears that only David, Rick and Kegan will be attending on behalf of the AMG, we wish them well.

David Wall presented a steam locomotive with a Meccano steam engine as motive power.

The meeting concluded with afternoon tea hosted by the ladies accompanied by further Meccano musings.



*Left top: David Wall's steam locomotive. Right: 'Dora' by Kegan Wrightson
Bottom: The crane maestro, Les Megget with completed 'Hikitia'.*

3D Printing

By
Bruce Durdle
MWT

What is 3D Printing?

3D printing is a form of Additive Manufacture (AM). Items are formed by adding material to a workspace to give the required shape rather than by removing material (subtractive manufacture).

Processes

The approach taken in 3D printing is to build up an object layer by layer, each layer forming a cross-section of the finished product. There are many different processes in use industrially, but the one we are primarily concerned with as a small-scale user is Fused Deposition Modelling (or Manufacture) FDM, aka Fused Filament Fabrication (FFF). Raw material in the form of a filament is fed through an extruder where it is heated and applied to the workspace. As it solidifies it fuses with the material already present. The usual material is some form of polymer, with ABS and PLA being commonest. Other processes can be used with more exotic materials such as using powdered metal to form sintered objects capable of working at very high temperatures.

The Basic Process

3D printers using FFF will normally comprise an extruder mounted on a moveable head. The extruder is moved in 2 directions on a plane, with the layer level being altered by raising the extruder or lowering the printing base (bed).

There are two basic arrangements: - Cartesian or XYZ, with two stepper motors operating horizontally set to X and Y, while a 3rd stepper raises the head/lowers the bed; and Delta, where three steppers each acting vertically raise or lower the ends of arms attached to the extruder.

What's it good for?

There are some objects that are difficult to make using subtractive techniques, but relatively easy to produce using 3D printing – for example, the strange ob-



ject shown here. This consists of two similar shapes with the smaller totally within the larger, but with no physical connection between them.

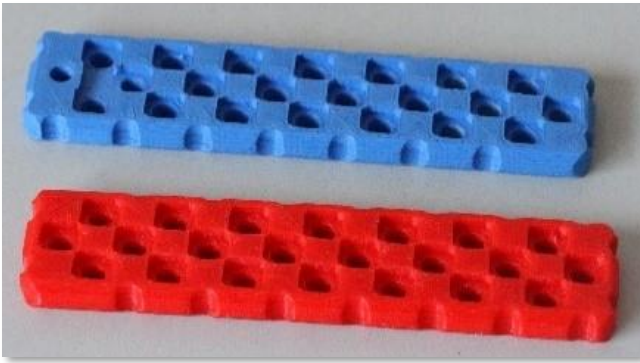
More practical examples with direct relevance to the Meccano world are simple objects needed in large



quantities, for example adapters to interconnect different systems or mounts for transducers, stepper motors and the like.

This is a simple print that allows transducers with a variety of mounting hole spacings to be fitted to Meccano equipment. Something a bit more complex was an element that I used to fit a belt drive tensioner from a retired ink-jet printer into a Meccano project.

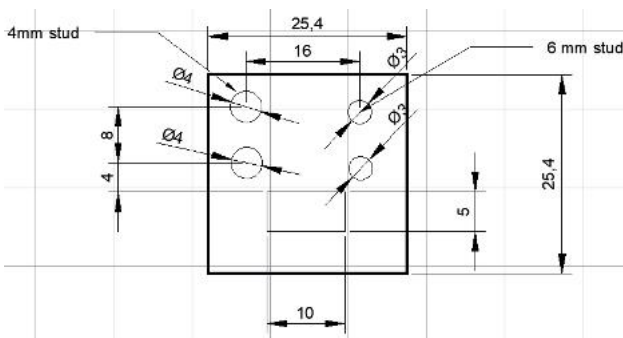
I'm sure that many of you have wished that Meccano made one or two more items just a little bit different to the standard range. My projects tend to require pretty large structures and to keep them clean I have



printed of adapters or packers to allow angle girders to be made into a square section. I've also printed a few pieces which extend the range of plastic components.

The Process

We'll look at what is involved in making this: it is of no particular significance but has a few features of interest to this discussion.



Step 1: Prepare a few drawings and note the critical dimensions. In this case, all we need is a view of the X-Y plane, and some notes about heights or thicknesses.

Step 2: Create a file representing the object in solid form.

The commonest format is **STL (STereoLithography)**. There are a lot of apps around for this (free or otherwise). Some that are readily available and free to download are:

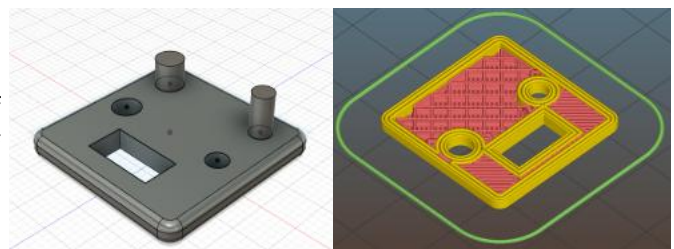
- Tinkercad – a bit too basic for our needs.
- Blender
- Freecad
- Sketchup
- Fusion 360

Each has its good and bad points. If you are starting from scratch without any prior experience, the best

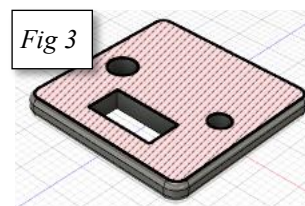
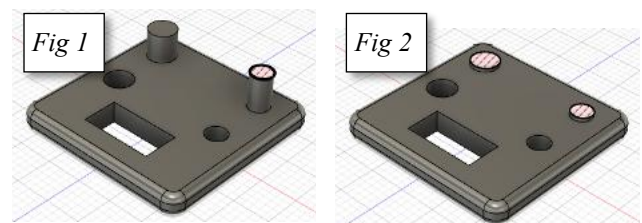
way is to pick one and make a lot of use of it. There will be a pretty steep learning curve in all cases.

Step 3: Slice the object into horizontal layers and prepare computer-readable file describing printer movements and other actions needed. Slicing is the most important part of the process as it is what turns the idealised computer model produced by the modelling package into instructions to the printer that will make a “real-world” object.

Each slice is going to be used to prepare the instructions to move the extruder for a single layer. Typical slice heights for available 3D printers are from 0.1 mm to 0.4 mm.



For our object, (above, left) there are three different sections. Fig 1 is a section near the top of the 3 mm dia stud; fig 2 is just above the base of the 4 mm stud; and fig 3 is through the base.



As well as looking at the actual cross-section to be produced, some other factors need to be considered when slicing. Most FFF objects are not solid, but comprise a solid shell

with an infill having lower density. A low-density infill will use less filament, but may not be strong enough for the required use; while a thicker shell may be needed to allow for things like tapping holes for screws. The diagram (above, right) shows a layer as produced by **Slic3r** for the object we're looking at: the holes and edges are outlined by three runs of shell (yellow), while the infill (red) is a denser rectangular pattern for the smaller sections at the bottom, and a relatively coarse pattern for the top section.

For my printer, this is done by proprietary software. Alternative slicers can be used but they need properly setting up to take the properties of the printer and filament into account. The final command string to the printer will control extruder and bed temperatures as well as the head position.

```

9 M107
10 M190 S90 ; set bed temperature
11 M104 S200 ; set temperature
12 G28 ; home all axes
13 G1 Z5 F5000 ; lift nozzle
14
15 M109 S200 ; wait for temperature to be reached
16 G21 ; set units to millimeters
17 G90 ; use absolute coordinates
18 M82 ; use absolute distances for extrusion
19 G92 E0
20 G1 Z0.400 F7800.000
21 G1 E-2.00000 F2400.00000
22 G92 E0
23 G1 X83.424 Y83.424 F7800.000
24 G1 E2.00000 F2400.00000
25 G1 X83.979 Y82.916 E2.08940 F1800.000
26 G1 X84.525 Y82.498 E2.17099
27 G1 X85.103 Y82.127 E2.25255
28 G1 X85.710 Y81.805 E2.33414
29 G1 X86.341 Y81.534 E2.41570
30 G1 X86.992 Y81.316 E2.49728
31 G1 X87.659 Y81.153 E2.57886

```

The slicer output is usually a text file that is in a format known as G-code. It is relatively easy to read and can be edited with any text editor if you're brave enough. The example shows the instructions to set temperatures and wait till target temperatures are reached, then uses the G1 command to move as specified. The parameters are X = X position to move to; Y = Y position to move to; F is the movement speed; and E is the rate of extruder feed.

Step 5: Send G-code file to printer and

W A I T..... Time for a coffee...

So what can go wrong?

There are quite a few hooks in this process. Many of these can be reduced in the initial design stages.

- Vertical studs are weak because of cleavage between layers
 - a minimum diameter of 5 or 6 mm is usually required
- Single small high points are prone to warping (Candy floss effect)
 - If a small layer is laid down immediately after the one below it, there will

be insufficient time to cool and surface tension can result in the tip being pulled out of shape.

- This can be avoided by adding another high point (or print 2 objects at once).
- Circles aren't – they are usually built up from polygons
- Dimensional inaccuracy:
 - Width of extrusion: imagine trying to lay down a layer of toothpaste to build up a precise object. You need the centre of the strip to be offset so it is inside any exterior edges, but outside any internal openings.
 - Mating pins and holes usually need some form of hand trimming.
- Adhesion to bed
 - Not enough and the part may move
 - Too much and it could stick to the bed
 - Extreme case - it can turn into a ball of filament
- Overhanging surfaces
 - Unsupported lengths will sag or worse – see the ragged edge at the top of the “strange object for an example.
 - Supports can be added during slicing, but may need extra finishing
- ... Watch this space ...





MWT Meeting

13 February 2021

Model challenge: The tennis ball trebuchet as set by Team Lindsay

Recorded distances (M) for each competitor.

- John Freer:** .25.
- Peter Winter:** 2.20, 8.00.
- Bruce Durdle:** 2.30.
- Chris Morton:** 1.05, .95.
- Hugh Ramage:** .50, .50.
- Richard Feltham:** 1.80.
- Stuart Lindsay:** .70.
- Peter Winter won by miles!**

General tour

Robin Rye: A non-Meccano stunt car that could go sideways on its wheels.

Daryl Anderson: Set 19602 Innovation set made up. A recent Warehouse purchase. Federation trophies on display before surrendering them, Senior and Bruce Baxter.

Chris Morton: Federation trophy on display before surrender, Club Trophy. Assembled current Multi Model set bulldozer. A get well card that incorporated a mystery Meccano leaflet.

Peter Hancock: A current car set assembled with new grippy wheel retainer clips and nice nuts and bolts.

Stuart Lindsay: With The Warehouse discontinuing Meccano, he scored a Ferrari race car set for \$25.00. Usual price was in the \$100.00 range.

Richard Feltham: Part of his forthcoming convention model plotting machine.

Bruce Durdle: A ping pong ball elevator to be part of his convention model and also incorporating a sensor to determine the colour of the balls.



The indomitable Peter Winter readies his killer trebuchet for discharge

Wellington Meccano Club at the Cable Car Museum 23 – 25 April 2021

It all started with a phone call from the Museums of Wellington, if we would be interested in having a display in their Cable Car Museum during the April School holidays. The answer was to the affirmative, even if this was only 4 weeks after our National Convention, nothing like putting ourselves under pressure! One of their team had seen our display at the Rail Ex expo late last year, and thought that it would be a great addition to their holiday attractions.

For your information, Museums of Wellington manage 4 sites in Wellington; Cable Car Museum, Wellington Museum (a nautical history of Wellington), Nairn Cottage, and Space Place held at the Carter Observatory. It is not Te Papa, that is a National Museum. The Cable car museum is at the top of the cable car journey where the views of Wellington are fantastic. Great café and the top entrance to our botanical gardens. Enough promoting Wellington as a tourist hot spot. Sorry, I just can't help myself. The attraction for us was that we didn't have to arrange any advertising, tables, and food, woo-hoo, all done for us, including free parking.

In such a short time frame from the Convention, there was not much hope of new models, so all working existing models were dusted off, tweaked, oiled, all in anticipation of another outing.

I happened to speaking to David Couch from Nelson and mentioned to him what we were planning, and he happened to be in Wellington that weekend on family matters, so we struck Gold there and he brought along his models as well. MWT were represented by **Chris** and **Paulette Morton**, also **Bryan Jones**, with their spiders and working models.

Tallying up table space, and models promised, was not quite what we had planned as there were more models lined up than there was table space. I suppose this is a good thing, but we squeezed a lot in. but not quite all. A three day display, as compared to a two day is a tad more tiring, but the time went so quickly. An electronic door count gave us approx. figures of over 3000 through the door, which blew us away as well as the management. Whirling motors, the bouncing of balls, spinning wheels and well as intricate static motors, thrilled them all. In fact there were a few visitors who had come to our Waikanae exhibition and came up to see them all again. I must apologise for the lack of photos, they don't do justice to the display, just imagine the National Convention repeating itself again, and you will get the idea.

Once again, team work ensured we had a successful display, with promises of future collaboration.

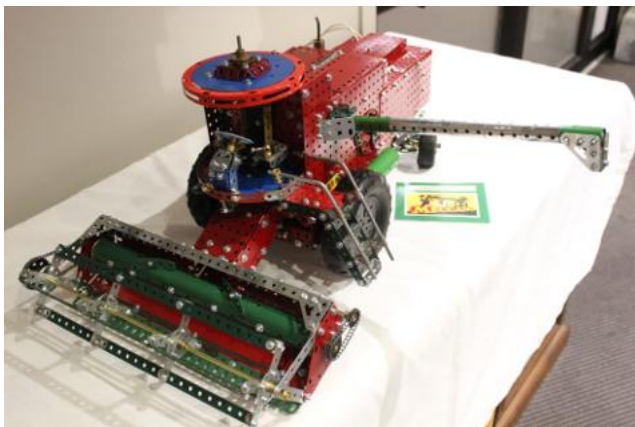


Report from the Christchurch Meccano Club by Roland Jaspers.

The first three months of this year have been mainly concerned with the preparations for the biennial Convention and the reporting back to the members. All convention attendees agreed that it was (dare I say “as per usual”) a great occasion, well organized and spent in good company with fellow Meccano enthusiasts. All “Main Island” attendees were glad to have braved the crossing for this.

I for one found the venue very conveniently located in relation to accommodation and facilities. The Friday set-up went well and gave plenty of time to chat to other exhibitors. The 10.00 am start on the public days also gave some good time for a stroll round the hall to take photos and chat. The public were great! Nothing untoward; I saw only smiling faces. All in all an occasion well worth remembering.

The themes for the Club’s model competition were: Feb, open model, Mar, something found on the farm and again Apr, open model. There were a great many excellent models on display. Pictures of some of these are included with the report. A special mention should be made of **Nathan Lang**; his models are getting better and better and are becoming technically more complex.



Peter Satterthwaite’s March model should have won the annual prize for “cheek and ingenuity”, but alas, no such prize is on offer.

President **Neil Pluck** was approached with the request that Christchurch consider organizing the 2023 convention. The April meeting lasted all of 25 minutes. (We do not count model judging and socializing as part of the minuted meetings.) From this you may conclude that the meeting agonized very long and hard whether or not to organize the 2023 convention. I am pleased to advise that the unanimous decision was to go ahead with this. A popular fishing spot on private land has a dozen beers as ac-

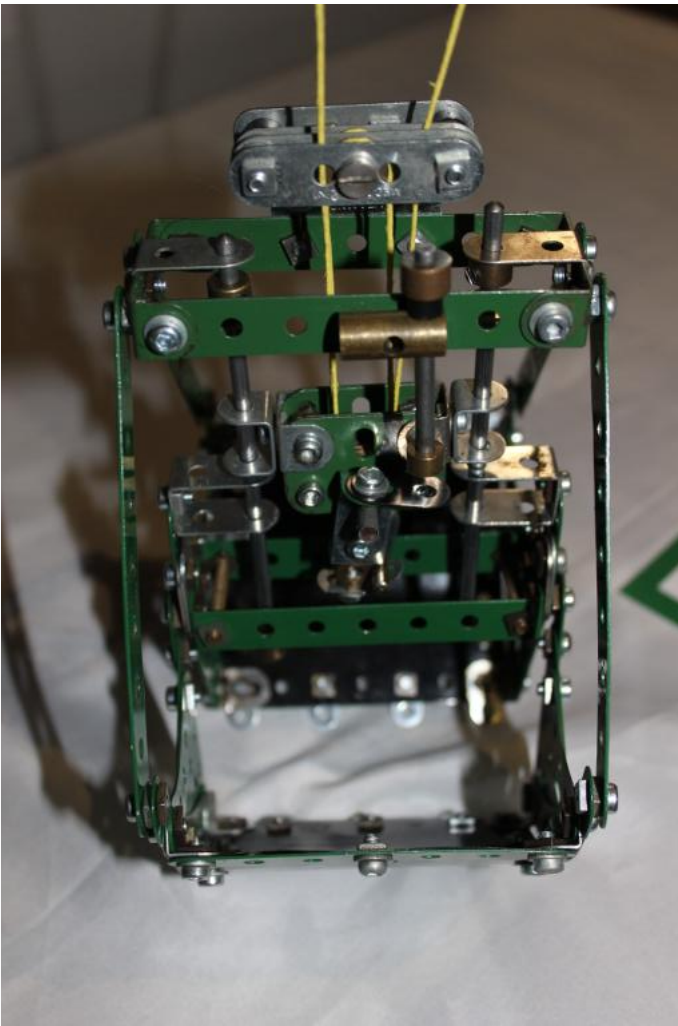


cess fee for a season of access. The first task of the convention committee will be to consider how this might be adapted to Meccano Convention entry. Details and updates will be advised as and when these are available.

In flyfishing we sign off with “tight lines”. Here I will wish you all “tight bolts”
Roland



*Left: Nathan Lang
Top: Nathan Lang
Upper: Brian Buckingham
Lower: John Hamlyn
Bottom: Stephen Styles*

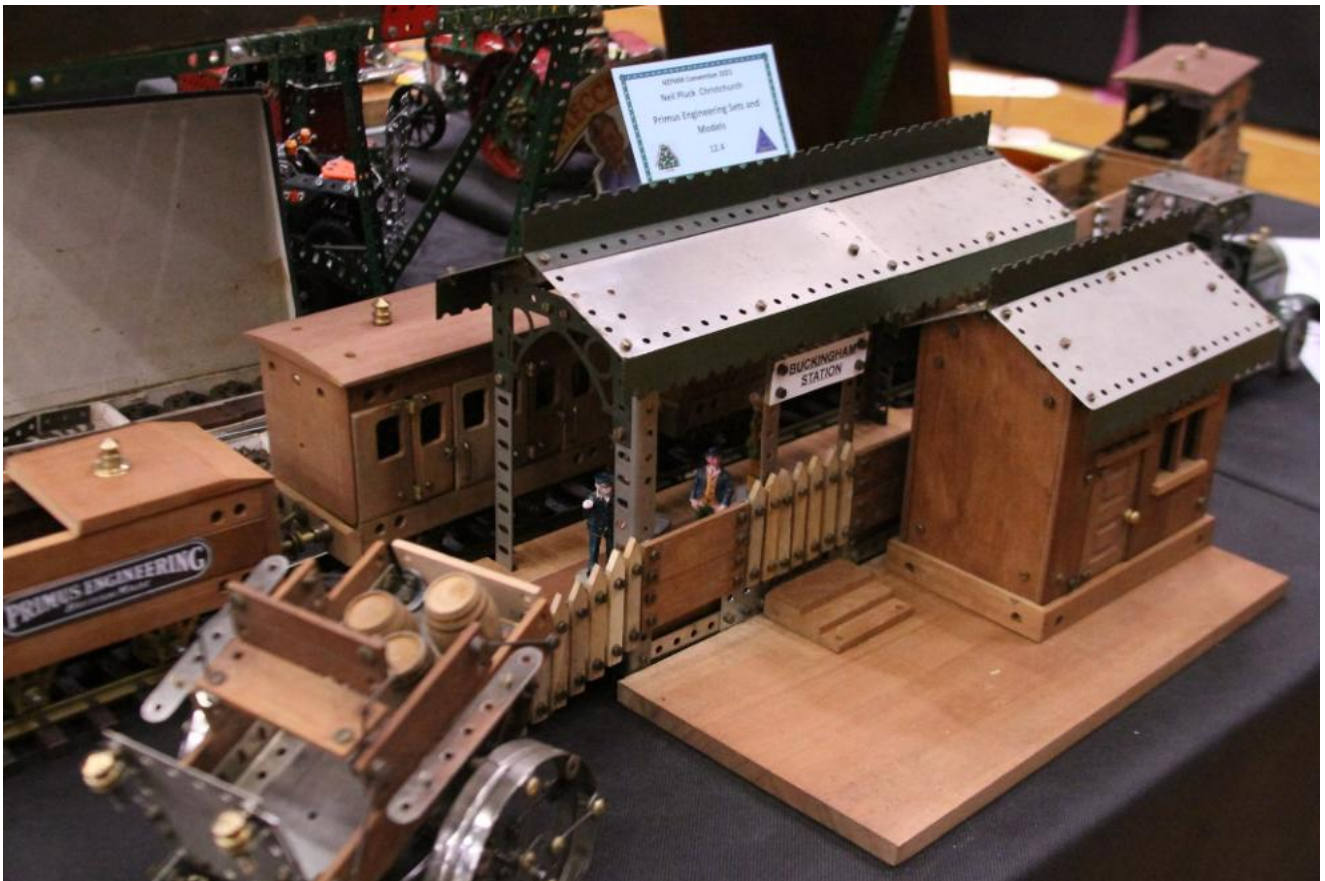


Top and Left: Two models by **Graeme O'Neill** from the Christchurch Meccano Club
Below: an exercise in minimalism by **Peter Satterthwaite**
Bottom: *Primus* by **Brian Buckingham**

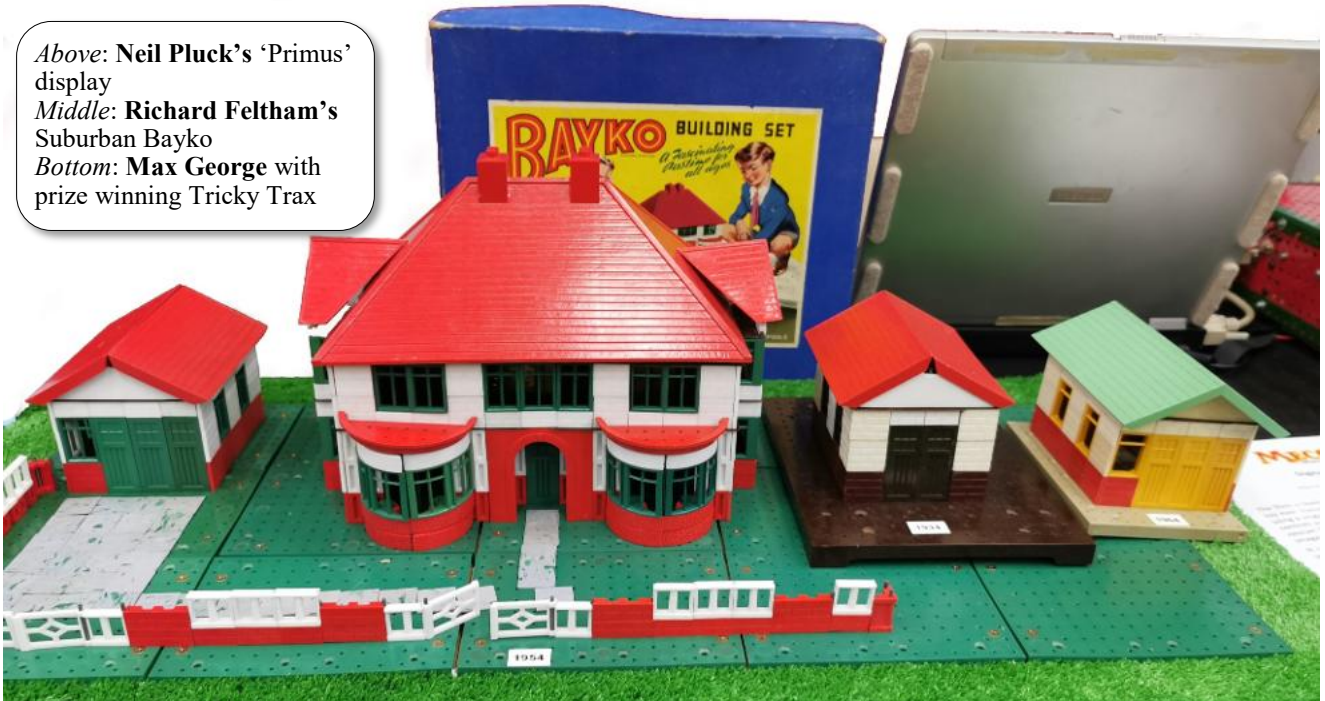




CONVENTION 2021
A selection from Holly Wrightson, Hugh Ramage, Neil Pluck and the late Lou Nichols



Above: Neil Pluck's 'Primus' display
Middle: Richard Feltham's Suburban Bayko
Bottom: Max George with prize winning Tricky Trax



New Zealand Club Diary 2021

Auckland Meccano Guild

President: David Wall, Tel. (09) 426 1965
Secretary: Gary Higgins, Tel. (09) 832 4292
Meetings: Meetings are held quarterly in February May August and November on the second Saturday at 2 pm. The May meeting will be held at Neil Carey's

MWT Meccano Club

Chairman: Chris Morton, Tel. (06) 323 8001
Secretary: Robin Rye, Tel. (06) 764 8670
Meetings: Second Saturday of every second month, at 2pm. Held at St. Luke's Church Hall, Corner Cornfoot and Manuka Streets, Castlecliff, Wanganui.

Wellington Meccano Club

President: Reg Barlow, Mob. 021 955 488
Secretary: Max George, Tel. (04) 232 4200
Contact: Stan Baker, Tel. (04) 566 7150
Meetings: Begin 7:30pm on first Friday every second month.

Christchurch Meccano Club

President: Neil Pluck, Tel. (03) 382 0411
Secretary: Roland Jaspers, Tel. (03) 351 4389
Meetings: Start at 7:30pm on first Friday every month (except January) at Papanui RSA Club, 55 Bellevue Ave or No. 1 Harewood Road, Christchurch.

Greater Waikato Meccano Club

Contact: Graeme Wrightson, (Mob) 027 671 6004
Meetings: These are held on the first Saturday of every second month, except January. Most meetings are held in the Central Waikato area starting at 2 pm. Contact Graeme Wrightson on 027 671 6004, Matamata.

Other Meccano Contacts

Hamilton: Don McClelland, Tel. (07) 843 4198
Tauranga: Barry McKey, Tel. (07) 576-1623
Hawera: Daryl Anderson, Tel. (06) 278 7666
Napier: Trevor Adam, Tel. (06) 843 4837
Palmerston North: Bruce Geange, Tel. (06) 357 0566
Nelson: John Stark, Tel. (03) 545 1025

Articles, etc. for the August 2021 issue of NZFMM Magazine should be sent to Richard Feltham before the 20th July 2021. at: richard.feltham174@gmail.com

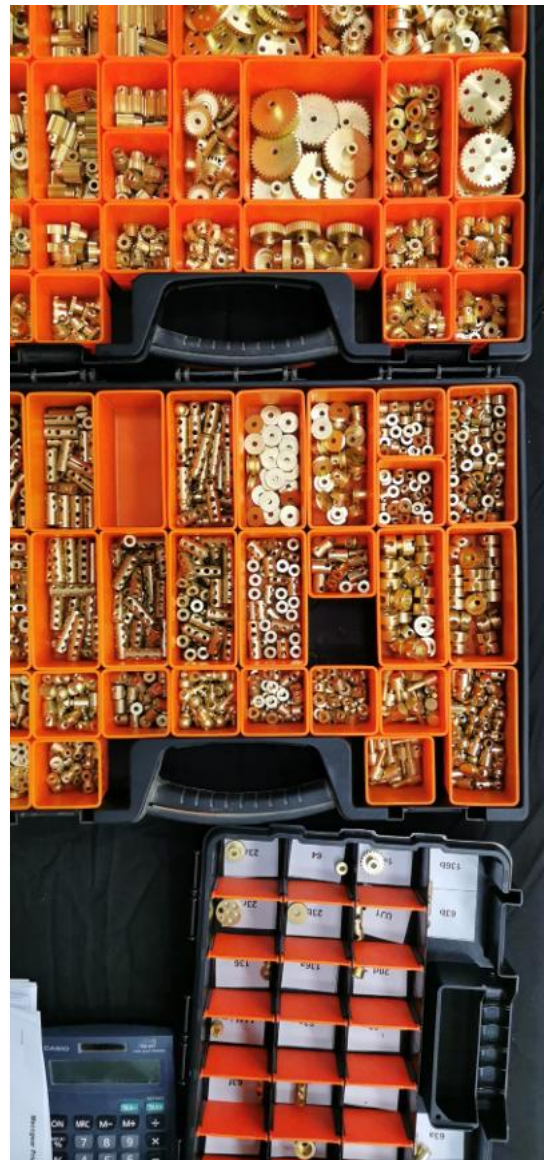
Back Numbers: NZFMM Magazines from April 2001 are available. Please contact Bruce Geange.

WANTED

LOOKING FOR Average to Good condition Super Highway and Crane multi-kits for building. Prefer posted or pickup from Waikato or Auckland Area.

Contact:
 Kegan Wrightson
 0220481447
 s4ndv1p3r@icloud.com

Buy, Sell, Auction & Exchange



MECCANO GEARS and BRASS PARTS

Contact Jeff Clark
jeff@kjid.co.nz
 021 743 080
sales@meccgear.co.nz

NZFMM Waikanae 2021

