



SunFest was a huge success and the Sunbury Men's Shed assisted SunFest by constructing equipment and setting up the iconic Dance Floor.



Sunbury Men's Shed Newsletter

Issue no 6

Shed Chatter

March 2016

Sunbury SunFest Day of Celebration



Sheddies doing what they do best ...servicing the community constructing the dance floor for the Festival



The dance floor in good use



Sunbury Sunfest Parade showcasing Sunbury

Angel helps men's shed

DONOR BUYS GARDEN GEAR LOST IN THEFT

Barry Kennedy

AN anonymous donor has bought the Hume Men's Shed (Sunbury) a new mower and whipper snipper after a burglary.

Club president Dieter Jankovic said since the January break-in of their garden shed, the group has had to rely on members bringing in gardening equipment to tidy the grounds beside the Evans St grasslands.

Mr Jankovic said the club had approached Sunbury councillor Jack Medcraft through club member Jim Moffat, hoping Hume Council would be able to replace the stolen gear.

While the benefactor's identity is unknown, Sunbury Mower and Chainsaw Centre sold the garden gear at a discount and offered to continue to service the two items free.

Also, Sunbury Bunnings gave a discount on a security upgrade undertaken by the shed, Mr Jankovic said.

"The theft was about eight weeks ago from our garden



Men's shed members Peter Wilkinson, John Hunter, Frank Zambello and Dieter Jankovic, with Cr Jack Medcraft, have a new mower and whipper snipper following the anonymous donation.

Picture: ROB LEESON

"We're just so fortunate to be based in Sunbury which has so many residents with an exceptional ability to look after their own." Mr Jankovic said security

Cr Medcraft said the theft was another example of how community groups and sports clubs were often targets for thieves. "Community groups are

tunate, but I'm again impressed that a philanthropic solution has been found from within Sunbury." It's the second time in weeks that the Sunbury

The Hume Men's Shed is one of the biggest in the state not aligned to a council or community health organisation and has a membership of more than 100.

A Lawn Mower and Whipper Snipper stolen from the Shed have been replaced by the donation of a kind person ... thank you to the person who donated these and Jack Medcraft for taking the initiative.



We have added the late Graham Bouchier, our past Treasurer to this fine group of Sheddies.

MEMBER PROJECT

3D PRINTING...by Victor Swain

I have been asked by the Men's Shed to write a piece on 3D printing.

First question I asked myself was why did I want a 3D Printer. The answer? I have been in Vehicle Engineering all my working life, and have a background in Product Design and Development, as well as an interest in art, electronics and computers. I figured that 3D Printing could well fill a gap lost after retirement, by extending my thoughts and imagination into "new technologies". Consequently I decided to have a go at 3D Printing.

So what is 3D printing? It is part of the Third Industrial Revolution. Just as the invention of the printed word or the smelting of pig iron into steel changed the world, 3D printing is part of the digital revolution. The start was the invention of the transistor. The 3D Printer uses computing power to drive electronics, which in turn drives a number of mechanical devices simultaneously, in this case "Stepper Motors".

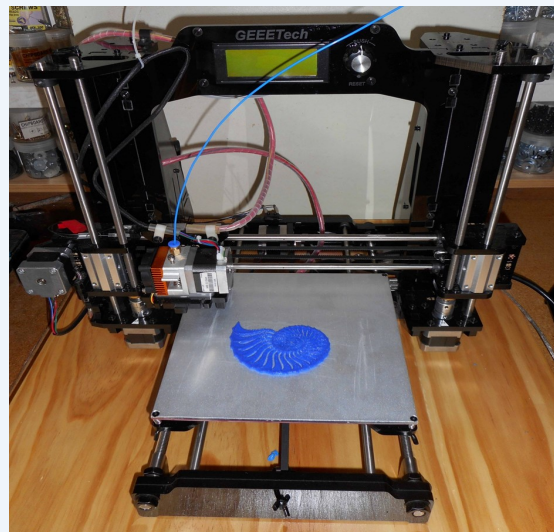
A "Stepper Motor" works by taking impulses from electronic drivers, which in turn changes the direction and strength of the magnetic flux, within the motor. These pulses will drive the shaft of the motor in either direction at various revs per minute to a predetermined position/shaft orientation.

If you held an unconnected "Stepper Motor" in your one hand and then turned the shaft, you would feel a series of "soft bumps"; this is the internal magnet, moving from one magnetic pole to the next. For a comprehensive explanation, see https://en.wikipedia.org/wiki/Stepper_motor

3D Printing is a computer controlled method of "additive manufacturing" that is to say that a substrate is added continually by following computer instructions. See https://en.wikipedia.org/wiki/3D_printing. This link is very comprehensive, with lots of information and extra links.

The Machine

My search started off on the internet—should it be DIY or buy? From my point of view, to buy a ready to go 3D Printer, was defeating the purpose. So what kit to buy? I settled for a Chinese manufactured product from Geeetech, a mid-range machine. A few weeks later a package arrived, somewhat damaged.



I cleared a space on a bench at home and went completely through the box contents. Most parts matched the inventory; with changes that the manufacturer made, and the internet webpage, it all got sorted, well almost!

Now for a 3D Printer to work we have a few areas of technology to understand; we have the physical parts and then electronics, plus the software to drive it all.

The physical part is the frame work onto which all the cool neat technology stuff hangs. The "Perspex" (8 mm thick) frame work of the printer consists of a bed which can move forward and back (Z axis) by just over 100 mm each way. (200 mm travel). The above bed is secured in place by 2 straight ground rods of stainless steel which run on 4 linear bearings. The ends of the rods are accurately located into the main frame of the machine. A gantry sits above the bed of the machine; embedded in this sits the printing head. This head can move left and right, (X axis) and is kept in position by linear bearings and rods. The whole gantry assessable can move up or down (Y axis), some 190 mm.

3D PRINTER

Once again this feature is located on rods and driven up and down by two screws, which are driven by Stepper Motors. The actuation of both the X and Z directions is also carried out by Stepper motors connected to “toothed drive belts and pulleys”. After reading the instructions a few times I assembled the above framework with drivers and accessories over a two week period, doing a few hours each day. After this I fitted and connected all the electronics, set it up and it was ready to go.

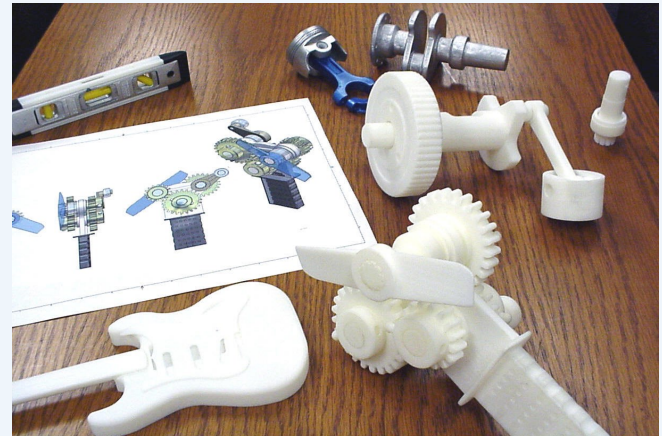
How it works. From my understanding, the initial starter is an idea for an object. Just say that I wanted to build a camera mount to suit a tripod. The object can be initially hand draw on paper and then the dimensions are added. The part can then be drawn up in either AutoCad (Professional) or Sketchpad (free) to the correct 3 dimensional size. This will produce a .dwg which is used to generate a .stl file. I have yet to do this for myself as most items which you may want to print can be found on the internet. The .stl file, is now taken over to be processed in a computer attached to the 3D printer. I use a laptop. I have previously loaded a “Slicer” programme from the Geeetech Webb site. I run the “Slicer” and load the file of the object to be made. The “slicer” runs and produces a file that has reduced the object into a virtual series of rows. Imagine building a wall ... you lay down the first line of bricks, followed by the second. This is how the printer produces the object, layer upon layer. On the computer screen you can view the proposed finished object and make changes if you wish.

Before you print you need to introduce the manufacturing substrate to the 3D printer. The gantry carries the “printer head”. This head has a “stepper motor”, which by the means of a spring loaded serrated wheel against a roller traps the substrate which is known as a filament. This filament (1.75 or 3.0 mm diameter) can be a

thermo plastic such as ABS or a substance made from renewable resources known as PLA. Below the serrated wheel is a electric heater which will heat the filament to its melting point. At the bottom end of this chamber is a “Nozzle” which is 0.4 mm in diameter. On instructions from the computer, the above “Stepper” motor will progress the filament forward and squeeze out the molten substrate as directed. It’s like toothpaste out of a tube.

After some time and effort, the “hard part” of setting up was completed and then checked. This is where the science takes a hike and jammy art takes over. So the moment of truth has come, everything is ready to go. I press the button on the computer. The printing head moves from its parked position; the substrate starts to come out of the nozzle. The filament oozing out of the nozzle, contacts the bed plate of the machine. A trail is left behind; the machine puts down a spiral trail if a Nautilus shell. IT’S WORKING.

However it is not as easy as it sounds, as temperatures, feed rate, design, errors. All creep in, and I suppose this is where patience and knowledge come in, but I hasten to add, if it was easy, then it would be boring!



Joke Corner



I know a guy who's addicted to brake fluid, but he says he can stop any time.

How long can this guy ride before his arms go numb?



This month we had a visit from the Melton Men's Shed members ... a very nice bunch and we got on very well. We showed them around and had a lot to talk about.



The Sunbury Men's Shed Management Committee plus our Stan Petryk went to the VMSA for an informative presentation on how Men's Sheds are tracking and how to apply for Grants etc. Followed by a wholesome meal. Following the presentation, we were invited to visit to the Hill Men's Shed. totally managed and funded by the Melton Council. They have a different model to the Sunbury Men's Shed. The Melton Council built and stocked the Shed in state of the art fittings and finance all activities. No fees, no fundraising ...

Office Bearer Positions.

In July we will have an AGM where we get a big member turn out. I am suggesting –**subject to member approval** — planning on a lunch on that day...Christmas in July stuff—big group photo with an iconic Classic car.

We need to give some thought to the Elections themselves and are looking for people to nominate for the 14 positions.

We would like two people to share each position as people go on holidays or are sometimes absent for various other reasons.

CURRENT OFFICE BEARERS

President	Dieter Jankovic
Secretary	John Hunter
Treasurer	Stan Rasanayagam
Vice President	Kevin Swaffield



COMMITTEE

Peter Wilkinson, Ian Lupson, Mike Newman, Rod Jackson, John Staines, Frank Zambello,

1. Shed Manager	Peter Wilkinson
2. Men's Health and Safety Officer	Kevin Swaffield
3. Projects Officer	Peter Wilkinson
4. Sponsorship and Fundraising Coordinator	Ian Lupson and various members of committee
5. Membership and Welfare Officer	Mike Newman is Membership and Rod Jackson is Welfare
6. Communication, Marketing and Media Officer	Frank Zambello, Rod Jackson and other members of committee
7. Asset Management Officer	Brian Girdwood. Maintains database with photos of all the assets
8. Social Activities Officer	Ian Lupson and various members of committee
9. Grants Coordinator	Mike Newman and Frank Zambello .
10. Computer IT maintenance	Rod Jackson, Allan Beck, Stan Petryk

Shed Issues.

Leader Local community grants: We applied for a **Leader Local Community Grants** for a Wood Fired Pizza Oven for our hungry blokes but it seems Pizza Ovens are not the flavour of the month so we will make our own.

First Aid certificates: we are organising First aid courses. Watch this space.

Polo Shirts: We are looking at **the Shed polo shirts**. Currently looking into an alternate subdued colour as well as the current colour. Talking to Melton Shed and Sunfest as they have got their act together.

Tattslotto: A **Tattslotto Fund** still to be organised. We still need a champion to run with this. Come on guys.

New Member Pack: We are putting together a **Welcome New Member Pack** with a few goodies in it to make new members happy to be with us. Near completion.

Discounts: We are still looking into gaining **Discounts from Local Traders to Shed Members** with a Shed Identity Card ... similar to what the Shed Pioneers received.

Tools are available for Loan by filling out the form provided.

There will be an auction of donated goods for donated at the end of the month goods where members can put in a bid in the box provided.



We need some bricks to make a portable Wood fired Pizza Oven on wheels so we can wheel it in the shed on rainy days. Please bring some in or tell us and we will come and pick them up. Work will start when we get sufficient bricks. Frank Zambello is the project manager ... I have a trailer so we won't need the bike.



*The Men's Shed
built Tardis is near
completion. The Sunbury Youth
Group are painting it in authentic
colours and soon we will be called
on to do a little story for the
Leader Newspaper.*

Editors Corner

Went to Echuca for our 43rd Wedding Anniversary recently as it was on my bucket list to go on a paddle steamer. Fascinating place. On the way I couldn't resist a photo at Bendigo with our idol, Marilyn Monroe. That is me in her shadow in case you didn't know.

OK guys, let's think about the coming elections and becoming involved in the running of the shed. It would be good to get a spread of helpers so the same people don't do all the work. Many hands make light work and with many people come many ideas which will help to improve our Shed. The shed we get is dependant of the effort we all put in. Happy Shedding.

