Impington
Model Aeroplane Club
Founded in 1946 by Ray Malmström

November 2017
www.impmac.co.uk

edited by Alan Paul
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Cheesewrap

Alan Hunter writes about a recent creation that took under a week to create!!

The original idea for this came from the US as a garden flyer (they must have large gardens) and comes from the late 1990's. It was 6 cell nicad powered with a 280 brushed motor just rubber banded on the nose and looked really crude to my eyes, so I thought I would have a go..... Mine is a little smaller at 34" span and weighs 4 oz ready to fly whereas the original was 8 oz. Bryan Gostlow reckons the wing loading is about 2.4 oz to the square foot so it is well in the floater class.

Mine is all balsa and named "Cheesewrap" as it is in the colours of Mature Cheddar and Fine Red Leicester and is covered in Tesco PVC Clingfilm like some cheese comes packaged. Because the covering is transparent, I used acrylic ink to colour the airframe instead to get a bit of colour. In the US they offer tinted Clingfilm in several colours which would have been nice, but it's not available in the UK as far as I know. The Clingfilm is stuck with Prittstick - it does not stick it very well, but will be easy to get it off and recover when the time comes. Tesco Clingfilm is £1.30 for 25 mts and is by far the cheapest covering I know of.

If you try Clingfilm go carefully with the heatgun temperature for shrinking as it is easy to melt a hole if you overcook it!!

The motor is a cheapo 1811 mini brushless and the plane loops easily at half power from level flight. You may just notice that I have thread turbulators under the covering which also help with the sag.

It has proved to be a gentle slow flyer with no vices but is not very keen on much of a breeze. My intention is to try it in the large hall if the Police allow it. We shall see....

P.S. The Tesco Clingfilm may not be such a grand idea. After the fuselage/tail sat in my workshop exposed to sun light for two months the covering is starting to pinhole a little, so I am assuming it is UV degradation of the plastic. I have now read that PVC Polymer is not UV stable - it's either that, or it self destructs like some plastic bags do. The Wing is ok but that's not in the light.

Oh well, if I had just kept it in the dark along with my other models, or maybe coated it in factor 50!! UV makes a good job of bleaching coloured tissue too.

Mid air collision at Ivinghoe

Steve contemplates his Phase 6 glider after it was very inconveniently sliced in two by another glider (an Algebra) during a days soaring at Ivinghoe Beacon in September. Steve says this was the second time the model had been involved in a mid air collision. One might be considered unfortunate but two……??

Alan ignores Steves mid air and carries on flying less his cap which blew off in the wind!! Trevor put a Mobius video camera on Alans Lightning glider and you can see the flight at the link below https://www.youtube.com/watch?v=t9b3o6tkmPo The noise is just pure wind noise – no engine and there were a few close calls including with Steves yellow and red spare Phase 6…..

Control of the pole

Indoors this time. Chris Strachan demonstrates good technique to rescue his model from the ceiling of the gym.

Dates for your Diary

Thur 26th Oct – Farman competition

Sat 28th Oct – Volunteers wanted at 4.30pm to help set up for the Open Day. See details later in Newsletter

Sun 29th Oct – Public Open Day 9am to 5pm. See flyer on last page

Sat 4th Nov – Indoor flying Sports Hall 2pm to 5pm. £3 entry fee

Sat 18th Nov – Indoor flying Sports Hall 2pm to 5pm. £3 entry fee

Thur 23rd Nov – AGM 8pm

Sat 2nd Dec – Pussycat competition during the afternoon flying session

Tyger Tyger burning bright?

Chris Stewart proudly displays his immaculate Tiger Moth. Made to his own scaled down drawings it is a real beauty that Chris says he made in a week – amazing. After a few trimming flights it was flying very nicely in the gym with electric power and RC guidance.

Chris says he will do some more work on the RAF Training Command markings once he's satisfied with the flight performance and has trimmed it out completely.

Now pay attention dad!!

Bill tries to stay awake as his son Rowan explains the intricacies of programming a Spektrum DX6i for his new Night Vapor.

Christmas Party 2017

The annual extravaganza will once again be held in the Conference Room at IVC on Thursday 14th December starting at 7.30pm. Volunteers to help set the room up are welcome from 7pm.

The cost is £4 per person and this includes a buffet meal and drinks. Get your tickets from John Copsey.

Alternative model rescue

No time for a pole – Phil Bailey climbs the bars to get his Gymminie Cricket down…..

A far too casual toss saw the model circle round and get stuck in the next set of bars!!

Indoor flyers

Bruce campaigns his Bellanca. The model was built 4 years ago and is a scale replica of the 1930s US trainer – one of many Bellanca variants. In the background, Hugh watches his Farman do a circuit.

Hugh Stevenson with his Farman bipe. This is the subject of a "One model" contest to be held at IVC. There were a few getting trimmed out and all seemed to fly rather well. It's all about wing area you know!!

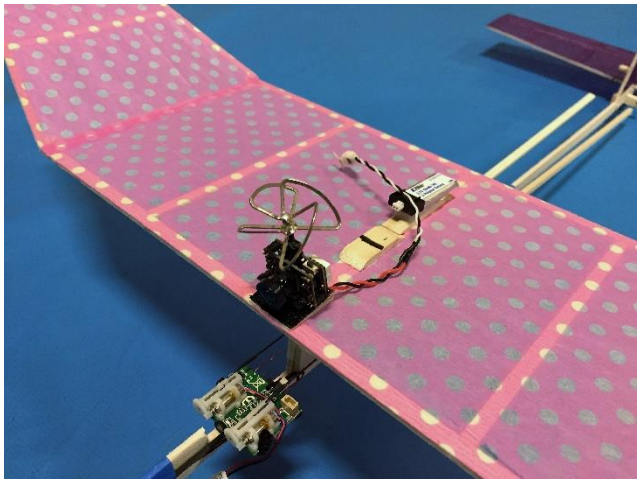
Hugh built this in September and this was its second outing in the main Sports Hall.

John Wynn flies one of Mick Staples fleet. This is a Stinson. Beautifully made of course and by the end of the afternoon in the Sports Hall, John had it going rather well.

Stinson were a prolific US aircraft manufacturer from the 1920s to the 1950s, but we are not sure which variant this was – who can fill in the details?

Another Farman, this time by Clive Anderson. There is clearly going to be some competition amongst the Farmans!!

It definitely qualifies as an aircraft. This is Clive Holgates rubber powered hovercraft. It's yet to be finished but was having test flights in the gym. The green scoop at the back picks up the airflow from the prop to form the cushion on which the craft rides.



This is Alans 150% Gymminie Cricket with Vapor entrails. It flew quite well till Trevor and I fitted the video camera!! The plane weighed 26g ready to fly but we added 11g with the camera and extra battery. We managed 2 descending circuits at full power before gravity won. See video at https://www.youtube.com/watch?v=0iz3RhBTtfg

Indoor RC streamer cutting

A very light hearted competition was held on 5th Sept. After some practice and discovering that it was better not to stick the streamer on your rudder, we had a 5 minute combat session.

There were clearly 2 different tactics – either engage the enemy and risk everything, or skulk round in the sidelines and keep your streamer intact!!

The planes were lined up with their 6 ft streamers trailing behind and took off at the same time. There were a number of mid air collisions and some pretty hairy flying, but also some streamer cuts. Luckily all the models survived the experience.

After landing the streamers were measured and the winner was the one with most left. The results were –

1st Mick Sumpter	Vapor
2nd Tony Welch	Vapor
3rd Alan Paul	Spacewalker
4th Peter Cunnison	Stick

Steve Mynott decided his machine wasn't up to the job on the night and like a chicken, did not fly…….

Apologies to anyone who feared for their life during the competition…….!!!!

3D Print your model

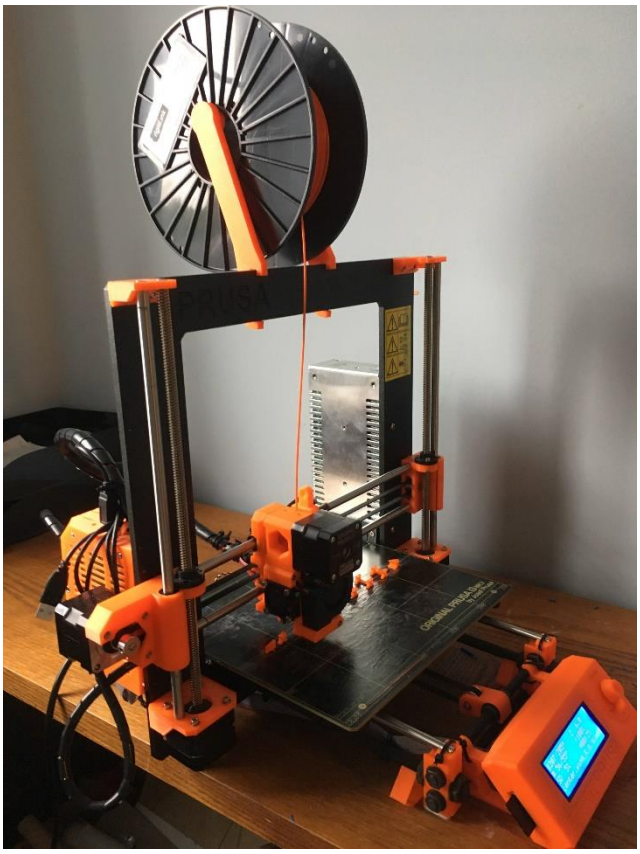
Stuart Jessup has been pushing the boundaries by using his new 3D Printer to make his new glider as he reports below –

Having acquired a 3D printer earlier this year for another project, my thoughts turned to using it to print model aircraft. It turns out that the Czechs are the pioneers in this area with two designers offering a number of model designs to download. I choose a glider design from 3dprintedrcplanes.com, the Kraga Kodo.

The 3d printer was purchased last year in kit form for about £600 from a well-respected Czech manufacturer, but it is now possible to buy an entry-level printer kit for £100.

Having got the printer built and running on the previous project, printing was fairly straightforward. It is not a fast process - total printing time was about 60 hours, but as a slow builder it would probably have taken this many hours of my own time to build a similar model conventionally.

The printer just chunters happily along on its own while the parts appear, almost miraculously, from nothing.

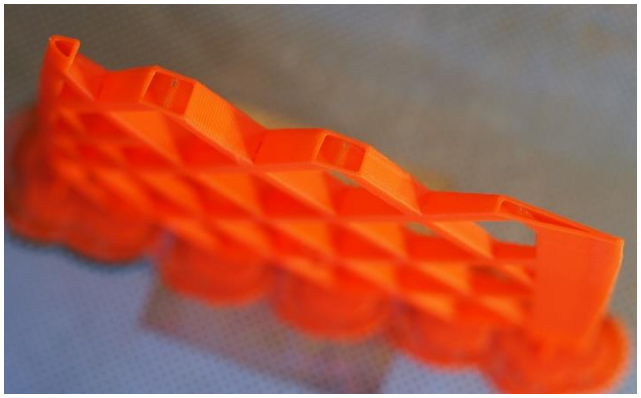


The 3D Printer – a Prusa Mk2S

The wing and fuselage are printed in sections of about 3-4 inches high in PLA plastic and cyanoed together. The plastic starts as a 1.75mm diameter filament on a reel, before being melted and squeezed into place by the printer.

About £20 worth of filament was used to print the glider. PLA is also biodegradable, so if the model ever ends up in a sad black bin bag, at least it can go on the compost heap!

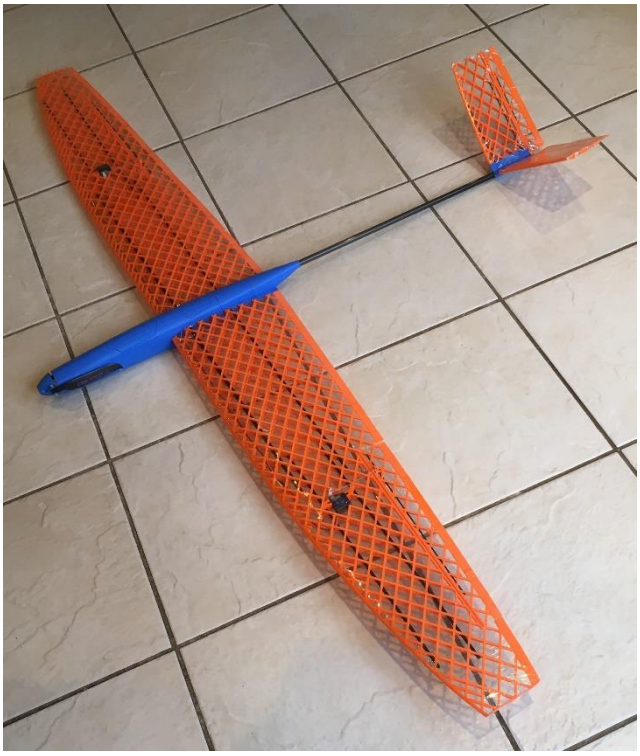
Alternatively, just print new copies of the damaged parts and glue them back in place.



Wing section after printing

Fuselage section after printing

PLA has a lower melting point than most plastics which makes it easy to print. It still has good strength, although carbon rods are used to reinforce the structure in this design. The pretty geodetic wing structure is covered in clear Solarfilm and the model kitted out with a standard radio and electric power system, with a folding prop.



The finished Kodo electric glider

Yet to have its maiden flight, I'm not expecting stellar performance from the Kraga Kodo as the wing loading is inevitably higher than for a conventional structure. However, for someone with dubious dexterity and limited free time, it is a great way of creating a good-looking model and hopefully it will take to the air soon. In the meantime, parts for my next model, an aerobatic sports plane are being printed - the Kraga Maripi. Maybe I'll design my own one day…..

If any club member would like a part 3D printed, I just need the design as an STL file which most 3D CAD systems can export. Things like scale spinners or undercarriage spats lend themselves well to 3dD printing, although the slightly ridged surface does need sanding/filling to produce a smooth finish.

Kraga Kodo www.3dprintedrcplanes.com/kodo

Kraga Maripi
www.3dprintedrcplanes.com/maripi

3DLabprint's range of scale models
www.3dlabprint.com

Prusa printers www.shop.prusa3d.com/en/17-3d-printers

£100 3d printer kit www.imakr.com/en/235-startt-affordable-3d-printer

Who's winding?

Can you put a face to those hands. There may be a picture clue earlier in the newsletter. Answer at the end.

What's this then?

Answer at the end of the newsletter……

Guess the date

Well, The RAF Phantom was retired in Jan 1990 and the C130 was not converted to a refuelling tanker till mid 1982 after the Falklands war, so it was definitely between those 2 dates. However, my photo supplier Alan Hoensch says it was taken in 1983.

Caption Competition

Can you think of a suitable caption for this flying contraption sent in by Paul Craske?

I wasn't sure if it was a hairdryer or a leaf blower, but I have never got on too well with either of them!!

A study in concentration

Andy Halmshaw flies his helicopter indoors in the gym

Safety Corner

I'm sure that everyone has read the new BMFA Handbook from cover to cover – all 78 pages!! If not, I have checked and there are no changes to the legal obligations on all pilots of models less than 7kg which are shown below. We just need to think before we launch – can we say we are compliant with these? Better to think beforehand rather than trying to justify it after an incident!!

1. Do not endanger any Person, Property or Aircraft
2. Only fly if reasonably satisfied that the flight can be made safely
3. Maintain a direct line of sight with the model (for FPV aircraft below 3.5kg and lower than 1,000ft, an observer can do this)

For models with cameras, the following additional laws apply

a. Don't fly over or within 150m of congested areas or an organised assembly of people
b. Don't fly within 50m of people, vehicles or structures not under your control (30m when landing). Club members count as being under your control!!

Indoor flying timings

As we can get into the gym more promptly this year, we have changed the flying timings to reflect this.

The first session will start at 7.00pm (rather than 7.10pm as it was last year) and the changeovers will be on the hour and half hour (rather than the 10 and 40 minute marks!!)

Public Open Day set up

If you can spare some time on Saturday 28th, your help would be appreciated setting out tables for the Sunday 29th meeting. If we have enough bodies the task is made much easier.

The time for doing this is 4.30pm as shown on the club programme. We are also asking for donations for the raffle which takes place on Sunday. If you have anything which you may feel is suitable we would be very grateful. In the past we have had books, kits, small tools, glue, wine, pilot figures and chocolates so, as you see, we are not limited to modelling items.

Club Membership Cards

The club has invested in some professionally printed club cards. There is no difference in the appearance with the exception that they are on thicker card. This means they are more robust than the old card and should last longer. As you know the membership secretary notes on the back the fee paid, the date and then he or she signs it. This can be done four times before a new card is needed so try not to lose your new card - please put it somewhere safe and remember where you put it for next time.

BMFA proof of membership cards are not given to everybody, they are provided by the BMFA so that a member will have proof of BMFA membership when joining or renewing his membership of another club. If you need one tell the membership secretary when paying your fee.

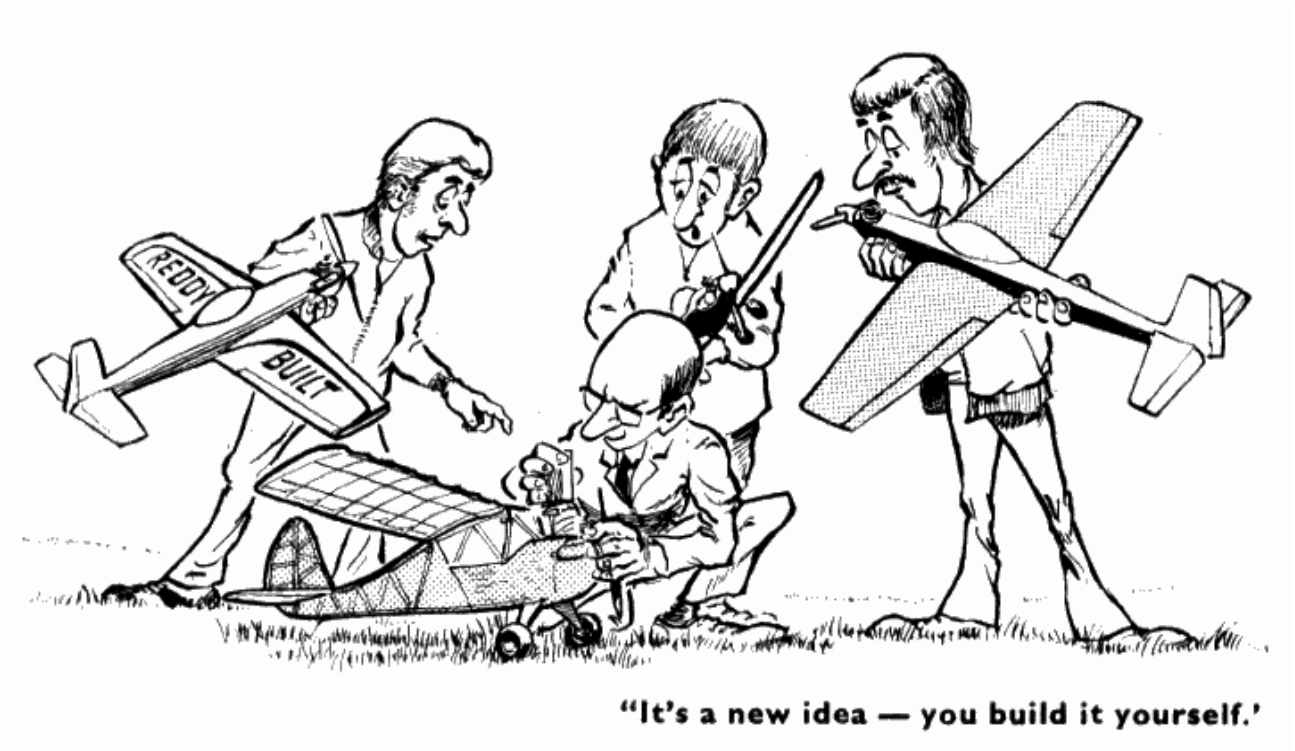
Answer to What's this then?

I wonder if you thought it was a Lockheed SR-71. Close but no cigar - it's a Bristol 188. This was a British supersonic research aircraft built by the Bristol Aeroplane Company in the 1950s, although its first flight was not until 1962.

Its length, slender cross-section and intended purpose led to its being nicknamed the "Flaming Pencil". The aircraft was expected to spend a considerable amount of time with a skin temperature around 300 Celsius and its take off speed was nearly 300mph!!

The model winder was Hugh Stevenson with his Farman

One for the purists perhaps…….?



"It's a new idea — you build it yourself.'

Spotted in a Church magazine

Male Logic

This a conversation between a man and his wife. Please note that she asks five or six questions which he answered quite simply:

Woman: Do you drink beer?

Man: Yes

Woman: How many beers a day?

Man: Usually about three

Woman: How much do you pay per beer?

Man: £5.00 which includes a tip (this is where it gets scary!)

Woman: And how long have you been drinking?

Man: About 20 years, I suppose

Woman: So a beer costs £5 and you have three beers a day which puts your spending each month at £450. In one year, it would be approximately £5400 correct?

Man: Correct

Woman: If in 1 year you spend £5400, not accounting for inflation, the past 20 years puts your spending at £108,000 correct?

Man: Correct

Woman: Do you know that if you didn't drink so much beer, that money could have been put in a step-up interest savings account and after accounting for compound interest for the past 20 years, you could have now bought an airplane?

Man: Do you drink beer?

Woman: No.

Man: Where is your airplane?

IVC - Indoor flying on 29th October 2017 9 am to 5 pm

We will be using the large (100 x 50 x 28 ft) sports hall at the College. The only restrictions are no radio models in the main hall and no internal combustion engines, jets or catapults anywhere. Also Round The Pole (4.5 metre lines) and small electric helicopter and fixed wing flying (X twin or Vapour type) in a separate hall (radio or infra-red).

SAMS MODELS will be in attendance to supply all your needs on the day.

Competitions:

There will be two, low key free flight (and one car!) competitions:

- **A Peanut** event using a simplification of the usual international rules, developing further on the march 2017 rules
  Maximum size of model either 13" span or 9" length excluding propeller
  A GA drawing, photograph or any other proof that the actual aircraft existed.
  A single judge for all entrants to award up to 30 scale points and up to 90 "difficulty bonus points",the purpose being to encourage those flying models of difficult and adventurous prototypes
  Any number of flights with a 10 second bonus for ROG.
  Total of best two flights plus scale and bonus points to decide final score

- The usual duration event for **Bostonian** models. Any design to the Bostonian formula (If you are unclear about the Bostonian formula rules ring or email the contact below). Minimum airframe weight 14 gm and all flights to be ROG. Total score from best 3 flights

- For both competitions get your flights timed and reported to control. As many attempts as you like. Awards in each event for overall winner and best junior (under 18). Bostonians to be weighed. No builder of the model requirement in any competition. Build one for your wife (or husband), child or grandchild who just has to wind and launch.

- We will also feature the **Racing Car event** as usual. This is a fun event for rubber powered cars. We vary the distance to be covered, number of heats etc depending on the entrants on the day! Ring or email below for any further information and for plans of suitable vehicles.

Exhibition

We would like models of all types in the exhibition and models other than aeroplanes are more than welcome. Bring whatever you like but please bring something (don't be shy) as this is a feature much enjoyed by our visitors - both flyers and spectators. It is also a good way of showing our kind of modelling to the public.

Seminar

The seminar will be given by Andrew Hewitt. His subject will be - Getting challenging free flight scale models to fly - something at which Andrew has enjoyed very considerable success.

Round the Pole and Small Radio Models

David and Will Beavor will be bringing their equipment, using 4605 connectors at the model, available from The RTP Hut (www.thertphut.co.uk). .As usual RTP will share the second hall with small R/C helicopters and fixed wing models.

Refreshments

Hot drinks and snacks will be available from the Sports Centre

Web Site

Have a look at our website at **www.impmac.co.uk** for more details of club activities

Cost of admission: Indoor Flyers - Adults £6.00, under 18s £1.50, Spectators and Chatters - £3.00

***Directions to Impington Village College*: Post code CB24 9LX**

Leave A14 at the first junction East of M11 J14, signed Cambridge B1049. At the roundabout take B1049 to North signed Cottenham, Histon. In ¾ km at 2nd lights turn right into New Road. Pass hospital entrance on right. Village College is next on right (two entrances, 1/3 and 2/3 km). Entrance to be used and car park will be signed.

Contact:- Chris Strachan Tel no: 01223 860498 Email: chris.strachan@btinternet.com