

Drone Zone



JUNE SAW A GROUP OF LIKE-MINDED UAV (UNMANNED AERIAL VEHICLE) ENTHUSIASTS CONVERGE ON SURREY FOR THE FIRST EVER 'DRONE ZONE' MEETING. WITH UAVS BECOMING MORE POPULAR AS KITS BECOME MORE READILY AVAILABLE, IT WAS A GOOD CHANCE FOR ANYONE INTERESTED IN AMATEUR UNMANNED SYSTEMS TO LEARN MORE AND SWAP IDEAS. THE EVENT WAS ORGANISED BY WELL KNOWN 3D JUDGE AND CONTRIBUTOR TO ROTORWORLD, NIGEL FRASER KER AND ALL PROCEEDS RAISED WENT TO THE 'HELP THE HEROES' CHARITY



There's been a definite surge of interest in UAVs or 'Unmanned Aerial Vehicles' recently for a number of reasons. With the technology required to operate an autonomous vehicle becoming cheaper, easier to use and generally more readily available, more people have started to look into this fascinating area of the radio controlled model flying hobby. Also, with models such as the Parrot AR.Drone and Gaiu 330-X also becoming popular, those interested in UAVs have a good starting point from which their interest and knowledge can grow.

EARLY ADOPTERS

UAVs or 'drones' are typically a little easier to fly than a traditional model helicopter which is mainly down to the clever electronics they have inside. This obviously makes them quite attractive propositions for those pilots looking for something on which to hone their skills. Couple this with the autonomous technology available which means that they can be programmed to actually fly

themselves and it's easy to see why their popularity is steadily increasing.

Nigel Fraser Ker has had an interest in UAVs for a while and was instrumental in setting up and hosting this first event specially for anyone interested in finding out more about drones. Luckily Nigel has the space at his house to be able to hold such an event and was ably helped by his family who provided some excellent catering in the form of a barbeque and hot and cold drinks and were also busy selling raffle tickets with all the funds raised going to the 'Help the Heroes' charity.

With the event only being promoted through the DIY Drones website (<http://diydrones.com>) and spread through word of mouth no-one was quite sure how many people would turn up to this first meeting. In the event there were about 50 visitors on the day all with varying degrees of experience, but all with a keen interest in learning more about drones and the various kits and technology available.

ON DISPLAY

Various suppliers of UAV kits and equipment brought along products to display which

enabled visitors to find out more about the latest developments. These included Martin Toovey from 'buildyourowndrone.co.uk' among others. There was also the opportunity for both visitors and vendors to show off their aircraft by having flights in Nigel's back garden. Unfortunately the weather wasn't as good it should have been in June, but in between rain showers various craft took to the sky much to delight of everyone attending. There was a real mix of aircraft present on the day which gave everyone the opportunity to discuss the merits of the various models available including some that had been built from scratch by their owners.

INTRODUCTION TO THE ARDUPILOT

One of the kits on display was the ArduPilot. The initial impression of an ArduPilot quad is that it's not unlike any other multi-rotor contribution to the growing number currently in the marketplace. However when you take the time to look a little closer you notice a few understated items which begin to command your attention, the very first item is the 'brain', called the ArduPilot Mega (APM), this has the ability to know the speed, rotation, altitude, pitch and direction of travel, the APM is the nucleus to all the functions this small but feature packed platform can offer. The current ArduPilot Quad can be used as a fun flyer in a 'stable mode', or for the more adventurous there is an 'acrobatics mode', other functions see return to home, position hold and camera stabilisation.

There are many applications for this aircraft, normally they are used for aerial work, photography being the main interest or for more serious applications such as surveying buildings, with the free

to use software allowing easy configuration and waypoint navigation. Also, by adding a telemetry pack you can monitor the flight from a laptop in real time. This kit when fully built offers many high end features at a very reasonable price

One of the best features of this platform is the ability to move the APM 'brain' from one airframe to another, a simple flashing of a new code for that airframe is all that is required. To date there is code for the T-Rex 450 heli, fixed wing craft, quad, hex, tri and Y6 configurations. There are also 600 and Oct codes in the works at this time. This means that you can start small with a quad or a tri and then update the frame and flash a new code and you're ready to fly again after a little tuning of the APM, without the expense of starting over from the beginning.

FIRST OF MANY

At the end of the day everyone who came along agreed that the event had been a great success and it's hoped that his may just be the first of many regular meets for UAV enthusiasts. If many more people do want to come along and get involved the event many soon outgrow Nigel's house and garden so a new more suitable venue will have to be found, but I know that Nigel is already looking into this.

Personally I thought it was a very friendly event that had a great atmosphere and I think it could just be the start of something quite big, so watch this space.

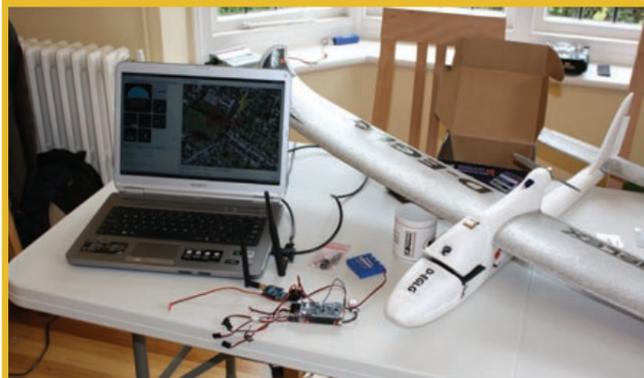
Neil Mead

More details/info

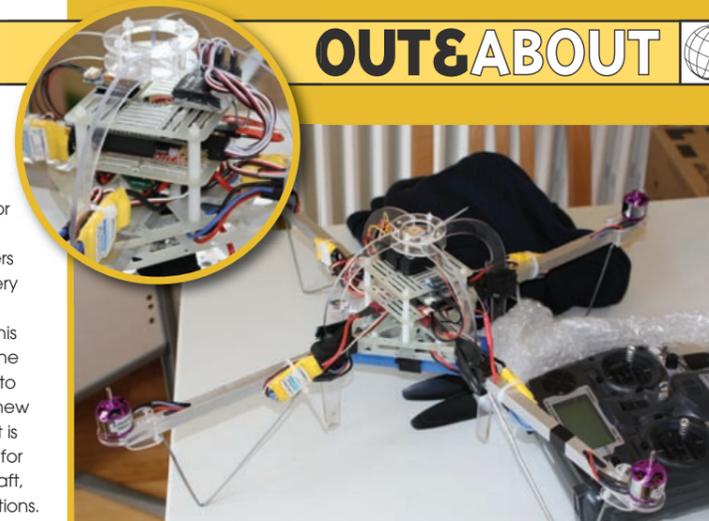
To find out more about the Drone Zone and future events please visit www.homegrowndrones.co.uk. You can also find out more about UAVs by visiting the ArduPilot kit manufacturer's website at www.jdrone.com and the UK distributor's site at www.buildyourowndrone.co.uk. We will be publishing more details about UAV kit manufacturers and publishing articles on UAVs/drones in future issues.



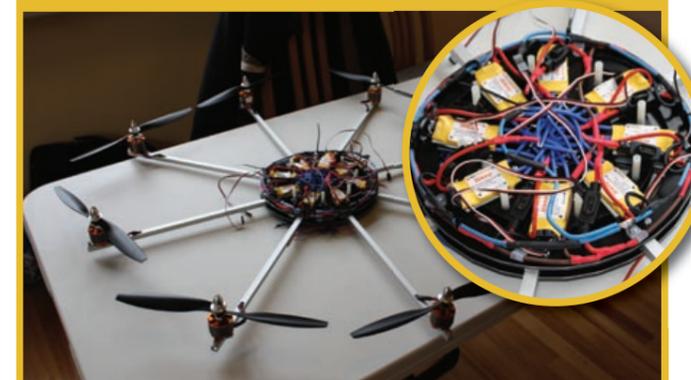
The first Drone Zone meeting was organised by Nigel Fraser Ker and attracted enthusiasts from around the UK and was a very friendly and enjoyable event



Martin Toovey displayed several Arduino-based autonomous aircraft including this Multiplex EasyStar which is controlled by the ArduPilot Mega system



One of the most impressive small UAV systems currently available is the Hexakopter produced as a kit by German company MikroKopter



This prototype octocopter is being developed for the aerial photography market by Andy Shrimpton. Eight speed controllers can cause some wiring issues (inset), but Andy plans to simplify this on production models



This quadcopter UAV features two GoPro cameras which when configured as a pair can be used for making 3D aerial recordings



A Bormatec Maja displayed by Matthew Bennett which featured UAV electronics made by his company Sky Circuits Ltd

Visitors to the Drone Zone event enjoyed discussing the merits of the various models on show and were able to swap ideas and experiences

