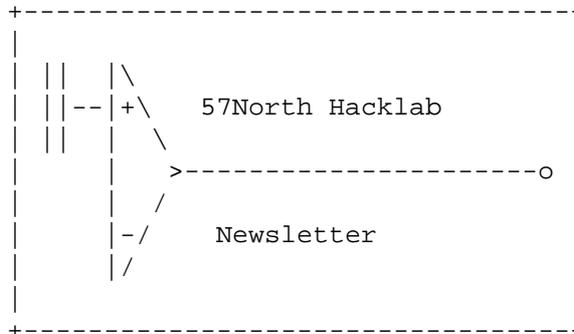


57North Hacklab Newsletter



August 2014

1. Welcome

Welcome to the monthly 57North newsletter. This is the second issue of this newsletter and it contains news about the space, news about projects and news about our members. It also contains a list of upcoming events for your diary.

If you would like something included in the next issue of the newsletter, please send an email to irl@fsfe.org.

2. Amateur Radio Licensing

Since having more radio activities in the space, there has been interest from members in becoming licensed to use the radios. On Thursday 7th August, irl and adventureloop visited the radio club and met with Peter Thomson GM1XEA who runs the training and examination. irl returned on the Saturday and has already got two of his practical activities completed and is on his way to his Intermediate license and adventureloop will be starting a Foundation course in September. Nordin will also be taking a Foundation course and hibby will be doing the Intermediate course when he returns from the desert.

- Local radio club: <http://aars.org.uk/>
- Radios wiki page: <https://57north.co/wiki/Radio>

3. Member Update: hibby

I've been making structured cabling and then phone systems work in the desert all week. It's been groovy

and frustrating.

Here's a funny story of the stuff I come up against.

I've got rows upon rows of these: <http://i.imgur.com/XBNdsVO.jpg> - 3 or 4x 3570x switches, 10gbit fibre connection back to a few <http://i.imgur.com/ixIHhpw.jpg> 6509s in a few cabinets. I've been trying to work out why there's so much fine dust (like microsand) in the cabinets. The buildings were sealed and sandtight before the telecoms kit was installed.

I had a chat with the HVAC guy to check the filters - nothing unusual comes up. Ignore it for a day. Over dinner, I had a conversation with another vendor who's been here a while. "Oh yeah, sand? it's everywhere. The HVAC wasn't done, so they covered all the cabinets in plastic wrap and took the main doors off the hinges to get airflow for the technicians".

Good - they sealed it all off. What they didn't seal off was the false floor, so all the sand and dust, under the influence of gravity and losing speed due to the slower air came to rest there. Now, several weeks later, there are cabinets pulling air through their bottoms (ooh! pardon?) from a void containing sandy dust beneath. Yellow kit ahoy!

It could be a big problem: <http://i.imgur.com/ZWAegIS.jpg> (from pre-commissioning storage). I'm sure it'll be fine. Either way, I'll be on a boat in Trondheim.

For all of how bad I sometimes say it is, the desert has nice sunrises, <http://i.imgur.com/BbvrTxu.jpg>, incredible weather and lots of surprises. Every day's a lesson - when you're low on resources, creative hacks are your only solution to so many problems. It's a challenging, hostile and rewarding environment to live and work in.

Stay tuned on the discussion mailing list for next week's exciting installation about how much fun it is to inspect the wiring on a black phone in direct sunlight when the air temperature is over 50C!

4. Project Idea: 3D Printer/CNC Machine

Nordin has a set of 3d printer/CnC miller parts (listed below) that he would like to see doing something together in the space. He's giving the parts as an incomplete kit to the space in the hope that someone can make it into something groovy. Note: Any completed project using the kit items collectively must also be donated to the space. Contact Nordin if you are interested in making a 3d printer/CnC miller from the parts. Nordin asks that the kit, if left unclaimed, not be broken up for unrelated projects for a period of 2 months. Beyond that, individual parts can be claimed by any current space member.

5. Project Idea: Quadcopter Drone Army

After being kindly given a Turnigy micro-x quad to play with, Nordin is seeking other interested parties to build a drone quad army and is asking if others are interested in some r/c quad fun? The goal is to achieve an airborne version of those line-following robots using principles from stigmergy rather than a control structure based on complex representations etc.

The suggested quad is cheap, standards complaint and most hackable, having an Arduino 328p flight controller powered by MultWiii firmware (<http://www.multiwii.com/software>) and plenty of spare i/o solder points. Initial plans are to hook up a cheap DSM2 100mW transmitter circuit (on order) to a ground Arduino that generates the simple PPM control data via simple override pots (for now). Beyond that, two choices:

(1) Explore use of the WiiMote's pixelart i2c camera as computatively cheap beacon tracking like our moth colleagues. Case use: Dones, follow that lightbar!

(2) Explore use of i2c gas sensors that follow concentration gradients, like our puny but clever friends, the ants. Case use: [Sniff sniff], Wheres that leak! - send the drone(s).

If you're interested, email the discussion list with ideas.

6. *Hibby's Horoscope Corner*

6.1 *Aries*

We start with the ram. You must embody the spirit of your kind, and channel your strong and stout spirit into your future this month. In focussing on your goals and locking horns with your challenges, the energy from Uranus on the rise shall carry you to glad tidings.

6.2 *Taurus*

Welcome, bull. You have travelled a long way recently, and the journey is far from over. Fear not, for you are not one to be milked and you have the great power of Jupiter on your side. By standing strong in the storm, you can overcome the fatigue of your woes and continue joyfully.

6.3 *Gemini*

The Twins have influenced you deeply, I can feel their energy emanating from you. With your unique balance of two conflicting headspaces, you are feeling compelled to appease everyone and succeeding well. If you can maintain the balance and control Mercury, you shall do well this month.

6.4 *Cancer*

The crab - You are the strong bearer of others pressures, holding proud against Saturn's onslaught. The sun is in your transit now, and she is shining upon your good will and has the power to heal. Enjoy well deserved rest, for you have been a loyal friend - allow yourself to trust in others for a change.

6.5 *Leo*

Strong and proud lion, the sun is in your transit also. Take strength in her golden rays, for they are of the same colour as you and will recharge your energies if you permit them. With a warm heart, you can celebrate your time to shine upon others, for it is now.

6.6 *Virgo*

Maiden, fear not threats from others. Your time is imminent, with Mercury transitioning to a rise across the duration this month. You have felt compromised and intimidated by others thanks to the recent strength of Neptune, but the battle can come to an end now - draw pride, strength and comfort from the victory.

6.7 *Libra*

Much like the scales that represent you, friends have been relying on you due to your balanced, well considered opinion. Fear not in relying upon others this month. As Venus is not feeling strong and the Sun is on the fall, you have to accept that your weaknesses might be dominating your headspace. Share this load and you shall find happiness.

6.8 *Scorpio*

Scorpion, move quickly and surely this month. Mars may be intimidating for others, but you can grow with the Red planet. Drawing on her energy, you can grow yourself and your push your goals to a new level. With careful planning, you can achieve lots this month.

6.9 *Sagittarius*

Archer, this month is a turbulent period for you. You have to push forward and keep your eyes on the target - the only way you can achieve that bullseye is with patience and careful consideration. You must keep a low profile and your accomplices close while your Jupiter transits through the Danger Zone.

6.10 *Capricorn*

Ah, goat - your sun transit is far off, but do not fear these dark times. You can consider this a time for introspection and consideration. You may feel far from friends and loved ones but trust me, once you're reunited, good times shall follow.

6.11 *Aquarius*

Water carrier, your time of subservience is long past. While the sun is far you can shine, and with the recent movement of Uranus, you can go far this month. As is typical, you have to put in hard work and tolerate others, however this always comes with its own rewards.

6.12 *Pisces*

Ah, fish - come forward. Typically you are a slippery one, quietly brooding and watching - this month, open yourself up and draw from Neptune and Jupiter's interaction. While some argue over whether this is the age of Aquarius or the age of Pisces, listen not. Be strong and make this your age of Pisces.

7. *Upcoming Events*

Tuesday 19th August 2014

Cryptonoise @ The Illicit Still - 5pm to 7pm

Tuesday 19th August 2014

Open Night @ 57North Hacklab - 7pm to late

Wednesday 20th August 2014

TechMeetup @ Meston Building - 6:30pm to 9pm

Thursday 21st August 2014

AberLUG @ Ma Camerons - 7:30pm to late

Tuesday 26th August 2014

Open Night @ 57North Hacklab - 7pm to late

Tuesday 2nd September 2014

Cryptonoise @ The Illicit Still - 5pm to 7pm

Tuesday 2nd September 2014

Open Night @ 57North Hacklab - 7pm to late

Tuesday 9th September 2014

Open Night @ 57North Hacklab - 7pm to late

Tuesday 16th September 2014

Cryptonoise @ The Illicit Still - 5pm to 7pm

Tuesday 16th September 2014

Open Night @ 57North Hacklab - 7pm to late

You can see all the upcoming events for 57North Hacklab at <https://57north.co/calendar>.