

# THE **GENESIS** **MATRIX**



30<sup>th</sup> September, 2018  
*"Oh, so that's what that button does!"*

<---yawn---> Craig says that I really need to do this Gold Channel, but I can hardly keep my eyes open so please forgive my rambling.

Last month-and-a-bit's program was kindly provided by Tony, and a nice program it was, too. I didn't watch the movie very closely, but what I saw was intriguing and I think I'll make a point of watching it properly. Thanks, Tony!

This month is courtesy of Jacob, and he spent much time and effort getting it together. His theme (yes, he even has a *theme!!*) is 'crashes'. Well done Jacob! And I promise I won't get inside knowledge of the quiz...or at least not too much. Honest.

Amazing as it is, it's time to arrange the Christmas meal. This year, it's going to be at the Red Lion again and will be on our regular Genesis day, if possible. I'll get the prices and put out a sign up sheet/menu selection, and Matt will collect the payment. The Council provides the December program, so we'll try to get you something good!

Your Chair,  
René



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René Arnush CHAIR, David Offen-James SECRETARY,  
Craig Arnush MINION AT LARGE, Matthew Greet TREASURER,  
Jacob Arnush PROGRAMME

Various Arnushes CONTRIBUTORS

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## Club Events For Your Diary

### Book Club

**Southam Library** on the 13th October, 2018, 10:00 to 12:00.

This month's topic is Kurt Vonnegut.

Address: Paddock Rd, Basingstoke RG22 6QB

Phone: 0300 555 1387

Web: <https://www.hants.gov.uk/librariesandarchives/library/libraryfinder/southam>

### Club Meeting

**The Red Lion Hotel** on the 21<sup>st</sup> October, 2018, 15:00 to 21:30.

This month's programme will be provided by Jeremy Ogden.

RG21 7LX, 01256 328525 <http://redlionhotelbasingstoke.com/>

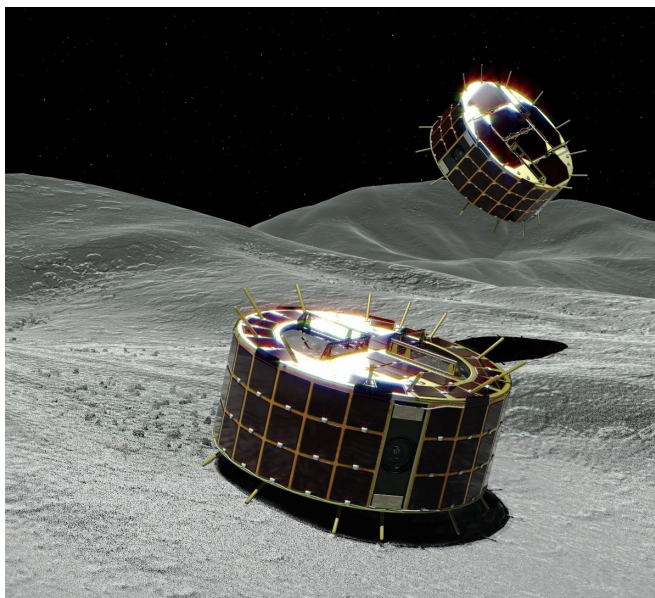


## Hayabusa-2 Reaches Ryugu

On 3rd December, 2014, the Japanese Exploration Agency (JAXA) launched the Hayabusa-2 probe, destined to explore the near-Earth asteroid 16173 Ryugu, collect samples, and return them to Earth.

As you can gather from the ‘2’ in the name, this is the second probe, after the original Hayabusa (Japanese for ‘peregrine falcon’) probe visited 25143 Itokawa and returned samples. In the case of this first probe, its rover didn’t so much land on the asteroid as tumble off into space.

Hayabusa-2 was designed after learning lessons from the first probe. It was sent to asteroid 16173 Ryugu. Ryugu refers to Ryūgū (Dragon Palace), a magical underwater palace in a Japanese folktale. In the story, the fisherman Urashima Tarō travels to the palace on the back of a turtle, and when he returns, he carries with him a mysterious box, much like Hayabusa2 returning with samples.

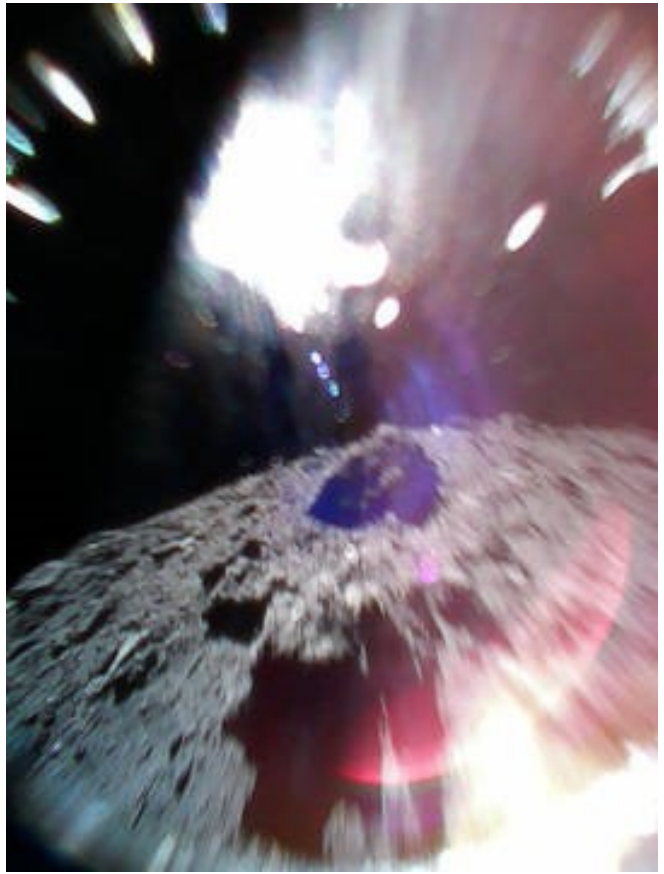


Hoppity Hop!

Hayabusa-2 arrived at Ryugu on 27th June, 2018 and released the first two of its four rovers the following 21st September. This time, the rovers successfully made it to the surface, as confirmed the next day.

These first two rovers, imaginatively named ROVER-1A and ROVER-1B, don’t actually have any wheels, which

would be fairly useless in the low gravity of the asteroid. Instead, they have a flywheel mechanism that allows the probes to actually hop around the surface. Among the first images from the probes is one taken during one of the hops.



First image from the surface

There are two other rovers, one sticking with the creative name of ROVER-2, with the fourth rover named MASCOT. Unlike the three ROVER rovers that use solar power, MASCOT has a non-rechargeable battery that is good for no more than 16 hours of activity.

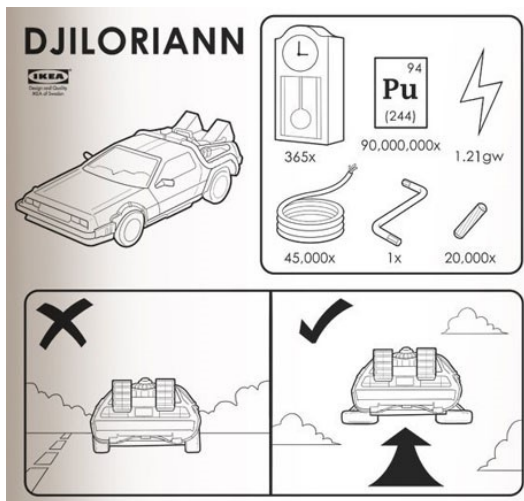
At some point, the main probe will close in on Ryugu and use a 5 gram tantalum bullet, fired at 300 m/s into the surface. The resulting particles from the bullet's collision will be collected for return to Earth.

The current plan is for Hayabusa-2 to depart in December, 2019, and then return to Earth, and land in Woomera, Australia in December, 2020. It will be carrying all that lovely, alien rocks and who knows what else. What could go wrong?

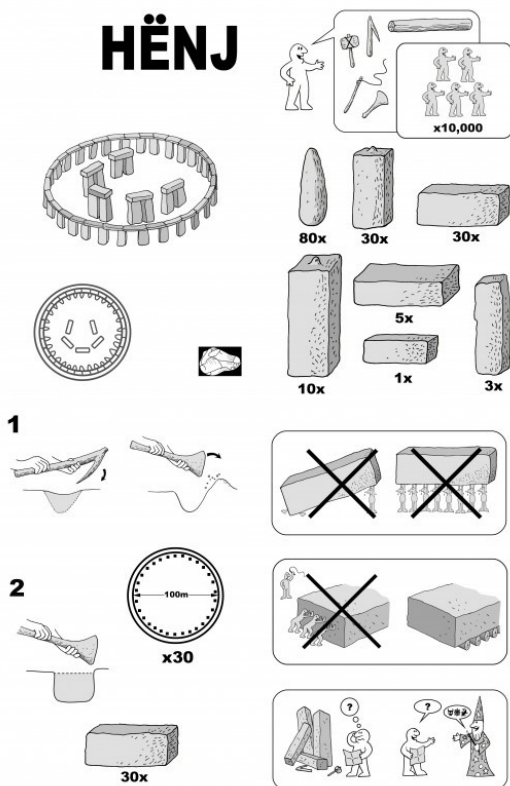


Uh, Yeah. Okay...

# Instructions from Ikea



## HËNJ



## HÄDRÖNN CJÖLIDDER



# Genesis Programme Calendar

When and Who

Date	Host
30-Sep-2018	Jacob Arnush
21-Oct-2018	Jeremy Ogden
18-Nov-2018	Louise Ogden
16-Dec-2018	Genesis Committee
13-Jan-2019	David Offen-James
10-Feb-2019	TBD
10-Mar-2019	TBD
7-Apr-2019	TBD
5-May-2019	TBD
2-Jun-2019	Paul Russell
30-Jun-2019	Arnush BBQ
28-Jul-2019	TBD
25-Aug-2019	David Offen-James

Behold the programme calendar for the next year. If you are interested or willing (or can be forced into) providing a programme for one of the months in 2019, please let me know so that I can sign you up.

