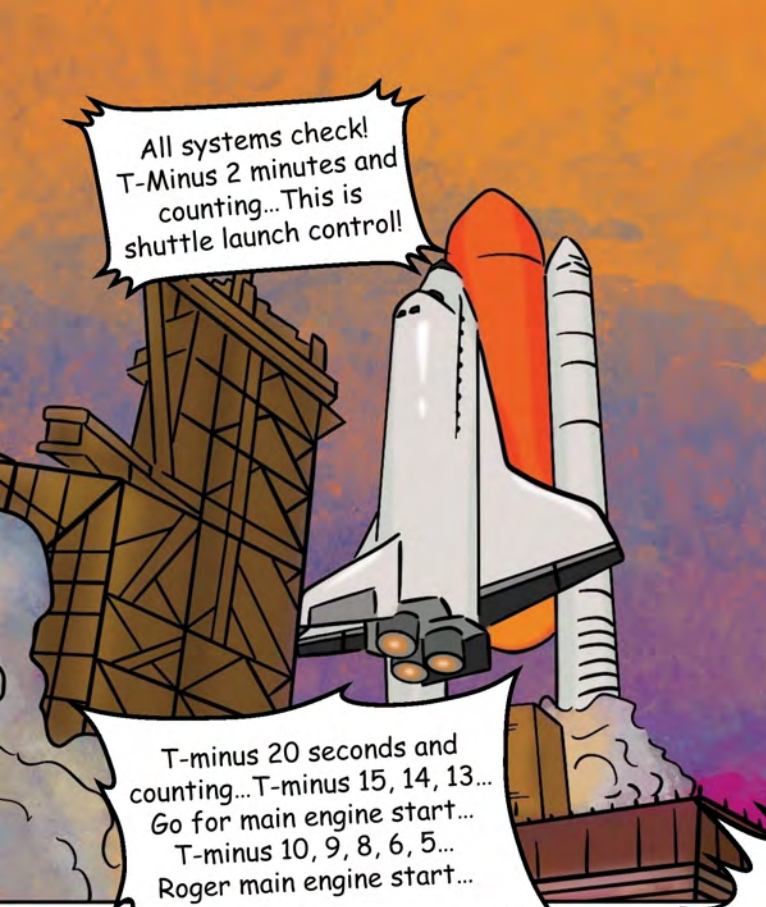


PROJECT AVATAR




VOL.6 - SINTERING & THE SCENT OF SLUMBER



All systems check!
T-Minus 2 minutes and
counting...This is
shuttle launch control!

T-minus 20 seconds and
counting...T-minus 15, 14, 13...
Go for main engine start...
T-minus 10, 9, 8, 6, 5...
Roger main engine start...



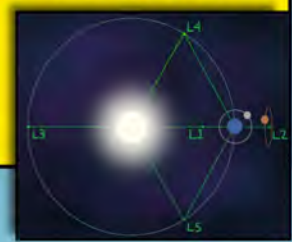
T-Minus 3, 2, 1...The shuttle has
cleared the tower - and we have
Liftoff of Shuttle* Rescue2 on
their 7-month journey way to the
Mars Lagrange 5 point* in deep
space, where the Gate Ring is being
assembled to rescue the Tanken.

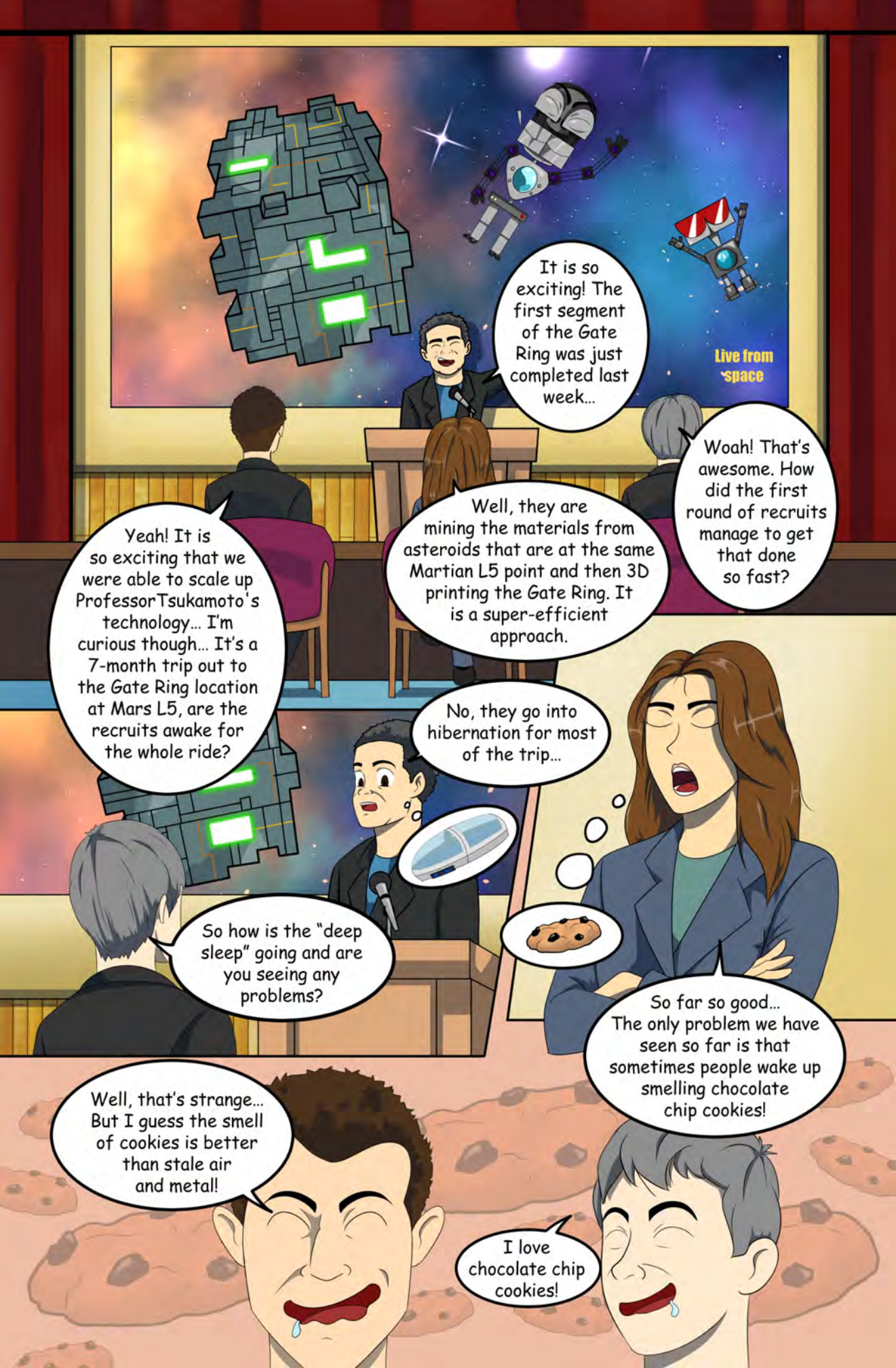




* The US Space Shuttle program began in 1981 and operated through 2011. The fourth installment of NASA's manned space flight program, the Space Shuttle was unique in that it incorporated a reusable winged glider designed to carry large payloads, and typically had a crew of 7 astronauts. The Space Shuttle program consisted of 5 spacecraft (Columbia, Challenger, Discovery, Atlantis and Endeavor) and flew 135 missions. The program suffered 2 catastrophic accidents resulting in the loss of the Challenger in 1986 shortly after take-off and the Columbia in 2003 upon re-entry.

* Lagrange points are stable positions in space where the gravitational pull of two objects is balanced by the centripetal force of an object moving with them. This makes Lagrange points ideal locations to place satellites since less fuel is needed to keep the object in position. There are 5 Lagrange points for any system consisting of two large masses. L1, L2 and L3 all lie on a line that runs through the two masses. L4 and L5 are located at the apex of equilateral triangles, defined by the distance between the 2 masses. Hundreds of asteroids have been found in the L4 and L5 points of Earth, Mars, Jupiter and Saturn.





It is so exciting! The first segment of the Gate Ring was just completed last week...

Live from space

Woah! That's awesome. How did the first round of recruits manage to get that done so fast?

Well, they are mining the materials from asteroids that are at the same Martian L5 point and then 3D printing the Gate Ring. It is a super-efficient approach.

Yeah! It is so exciting that we were able to scale up Professor Tsukamoto's technology... I'm curious though... It's a 7-month trip out to the Gate Ring location at Mars L5, are the recruits awake for the whole ride?

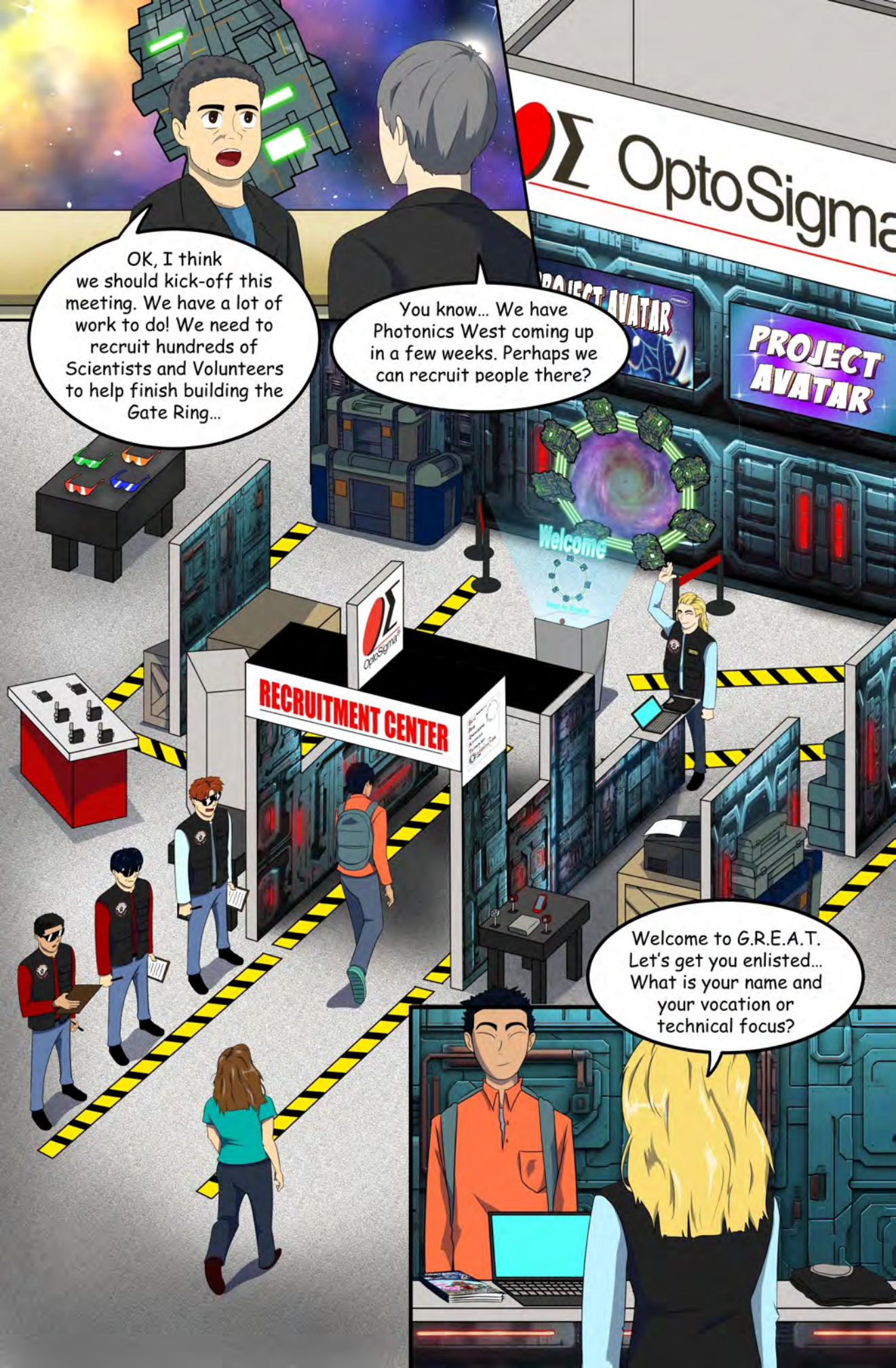
No, they go into hibernation for most of the trip...

So how is the "deep sleep" going and are you seeing any problems?

So far so good... The only problem we have seen so far is that sometimes people wake up smelling chocolate chip cookies!

Well, that's strange... But I guess the smell of cookies is better than stale air and metal!

I love chocolate chip cookies!



OK, I think we should kick-off this meeting. We have a lot of work to do! We need to recruit hundreds of Scientists and Volunteers to help finish building the Gate Ring...

You know... We have Photonics West coming up in a few weeks. Perhaps we can recruit people there?

Welcome to G.R.E.A.T. Let's get you enlisted... What is your name and your vocation or technical focus?

RECRUITMENT CENTER

OptoSigma

PROJECT AVATAR

PROJECT AVATAR

Welcome



Recruit
GATE RING
ENGINEERING
ADVANCED
TECHNOLOGY
ASSOCIATION
Physicist

Here is your badge.
Some reading material.
And your CREW uniform...



Head on over to the Gate Ring directory to get your housing and work assignment...



AVATAR

Welcome

Whoa! Super cool!
A holographic display,
amazing technology!

Press to Begin

Hi I'm Clayton!
Looks like you are a
Physicist assigned to Gate
Ring Segment B, and you
will be helping to align the
Optical Frequency Comb*.
Let me guide you to your
equipment bay and then we
can get you over to your
hibernation pod.

How dangerous is
hibernation?

Aaah...it's nothin!
They say you
dream of chocolate
chip cookies...

To Be Continued...

* Optical Frequency Combs are lasers whose output spectrum is made up of discrete and equally spaced wavelengths/frequencies. These precisely spaced lines of light act like a ruler that can measure time and help synchronize clocks over large distances. Additionally, since Optical Frequency Combs can divide time into extremely small slices, scientists can use these tools to detect incredibly small changes such as the wobble of a star that has a planet in its orbit, or the effect of gravity on the passage of time. Optical Frequency Combs are being placed in satellites to improve GPS resolution. They are also being used to detect air pollution and may even have use in medical diagnostics to help detect diseases.



Meet Morgan Korzik, the winner of our "Call for Artist" contest. His artwork is featured on page 1.

Morgan Korzik has a B.S. in Biology, and a M.S. in Forensic Science. He is currently a forensic scientist with a focus in forensic biology and DNA analysis.

Morgan enjoys volunteering and participating in outreach to help inspire young scientists. Additionally, Morgan hopes to highlight how art and science intersect.

His first authorship entwining the two areas is a self-illustrated book titled "Scene to Scientist: A Visual Introduction to Forensic Science." His self publication is available on Amazon.

