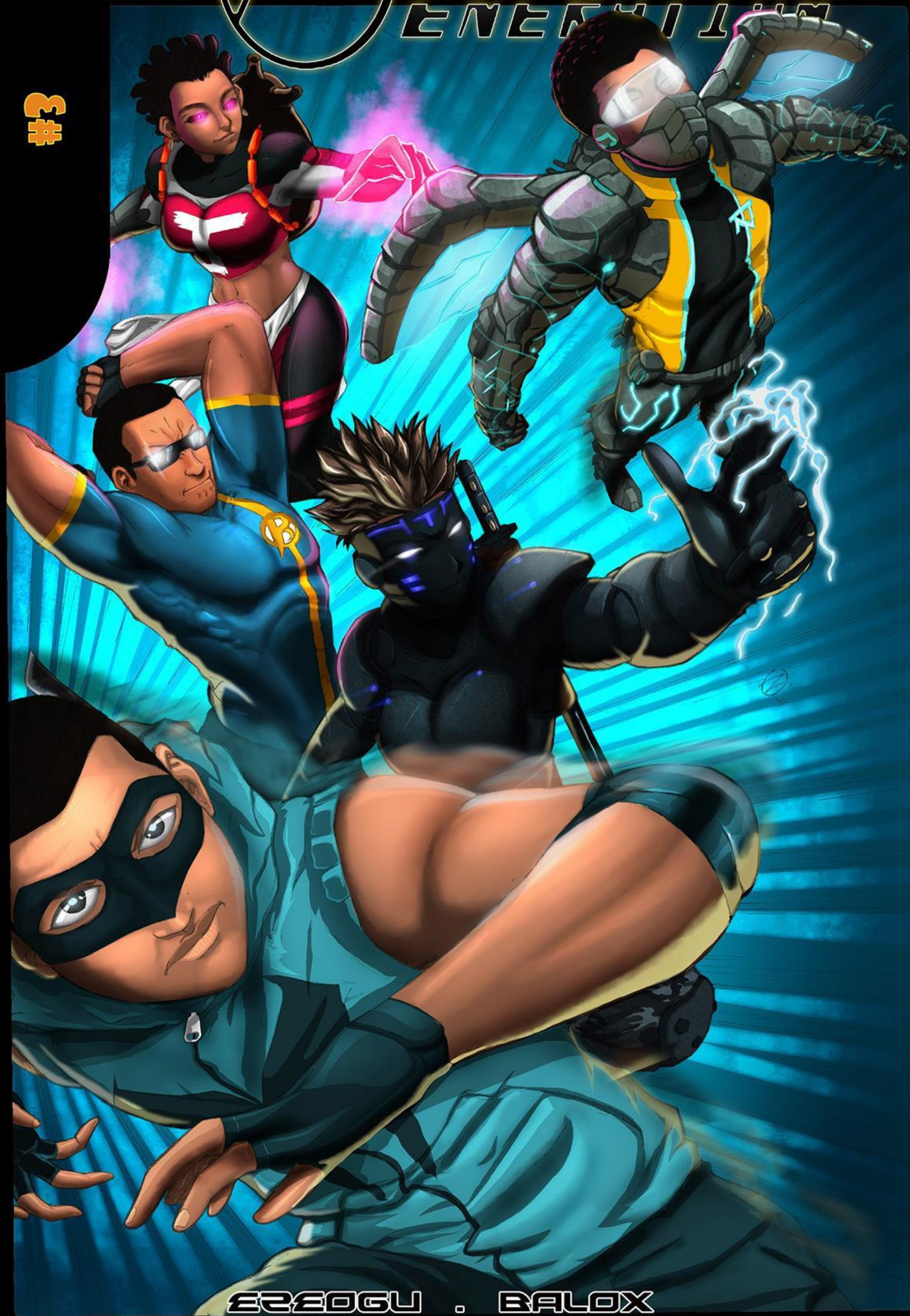




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#3

# AMAZON FLYERS ENERGY



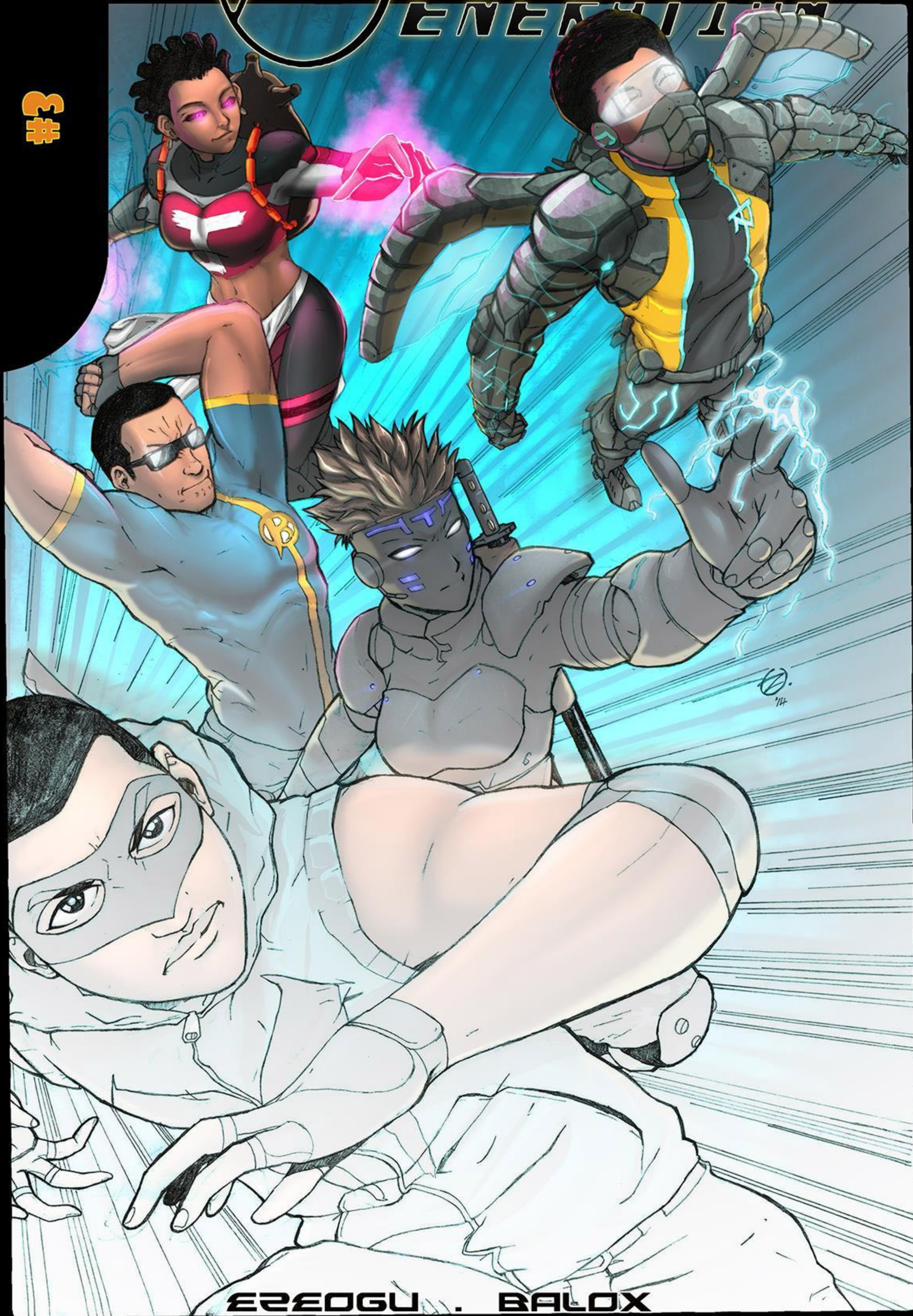
ERZOGU . BALOX



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#3

# AMARA FLYER ENERGY



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HERO GENERATION TELLS THE STORY OF THE EXTREMES;  
AN UNDERGROUND SUPERHERO GROUP CONSISTING OF  
SUPER POWERED INDIVIDUALS THAT THE WORLD IS YET  
TO ACKNOWLEDGE. UNITED BY A HIDDEN PAST AND A  
COMMON CAUSE, THEY FIGHT TO KEEP THE CITY SAFE.

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# HERO GENERATION

## ENERGIUM

PREVIOUSLY ON HERO GENERATION



WEEKS AGO, THE SUPER HERO TEAM OF TEENAGERS, MADE THEIR FIRST PUBLIC APPEARANCE. STOPPING A BURNING BUILDING AND A METEOR SHOWER, AFTER GUARDIAN PRIME HAD STOPPED AN ASTEROID FROM HITTING EARTH. NOW A NEW THREAT CALLING THEMSELVES THE H.I.VES, HAS RISEN. A TERRORIST SECT WITH A RADICAL AGENDA...



MAXSPEED



NU-TECH



POWERBOX

FOR THE PAST FEW DECADES, SCIENCE HAS CAUSED  
US TO UNDERSTAND THAT THERE ARE TEN  
PARTICLES THAT COMPOSE OUR UNIVERSE. THEY  
ARE; Z PARTICLES, BRANES PARTICLES,  
STRING PARTICLES, TACHYON PARTICLES,  
PREONS, GRAVIPHOTONS, GRAVITONS,  
ANTIPARTICLES, SPARTICLES AND STRANGLETS...



IN THE PAST FEW YEARS, CERTAIN TURN  
OF EVENTS HAVE SHOWN  
THE WORLD THAT CERTAIN HUMANS  
EXIST WITH THE ABILITY TO NATURALLY  
ABSORB THESE PARTICLES AT  
ANY STAGE IN THEIR LIFE AND GAIN SUPERHUMAN  
ABILITIES. WE NOW IDENTIFY  
THEM AS HOMO VARIANTS.

HIM?... MAXSPEED?

STILL DOESN'T PLAY WELL WITH OTHERS...  
THE CHOICE OF NAME? I'VE  
SUGGESTED MACH-SPEED DOZENS  
OF TIMES, HE'S TOO STUBBORN TO TAKE  
IT AND IT GETS TIRING.

YOU'RE NOT WRAPPING  
THIS UP LIKE THAT,  
WE DESERVE ANSWERS.  
IF IT WEREN'T FOR  
US, MOST OF YOU...

SEE THIS BOY O,  
BECAUSE YOU THINK  
YOU ARE FAST!  
SEE, LET ME TELL  
YOU EH...

THAT INFORMATION  
IS CLASSIFIED. GO  
HOME BOY, YOU'VE  
TRIED FOR  
TODAY.

BOY!  
TRIED!

HE'S OUR RESIDENT HOT HEAD.

...WE KNOW FOR SURE HIS PARTICLE POWER  
SOURCE IS TACHYONS. HE'S GOT INCREASED  
METABOLISM AND IMPROVED HOMEOSTASIS,  
WELL THAT'S HOW NU-TECH PUT IT...

HE'S REALLY FAST,  
SAME THING.

I'M  
A  
SUPER  
HERO!  
BUT  
NOT  
THE  
KIND  
YOU'  
USED  
TO!

WHAT HAS IT BEEN, LIKE TWO YEARS NOW...  
MARCUS CHIGOZIE, MY FIRST PARAHUMAN FIND.

IF YOU ASK ME, I'M STILL AS LOST THEN WITH HIM AS I AM NOW...  
MINE WAS SIMPLE, I MEAN I CHOSE THIS PATH BECAUSE, WELL, IT JUST HAD TO BE, LIKE IT WAS WHAT I HAD TO DO...  
DO I SAY A CALLING?

PLUS, GUARDIAN PRIME MADE ME A FAN OF THE...  
NEVER MIND.

BUT WHEN I FOUND HIM THAT NIGHT, IN THE ALLEY, NEWLY PARAHUMAN, BARELY IN CONTROL...

TAKING ON THUGS. THE ANGER, UNRESTRAINED, BLIND! IT WAS LIKE AS IF..

"TOYE, IF YOU DON'T STEP IN, WHOEVER WILL IS GOING TO POISON HIS MIND"

HEY KID, WHAT ARE YOU DOING?

KID?! REALLY?

THAT WAS IT!

WE NEEDED PEOPLE FOR OUR CAUSE, RIGHT? SO... HE SEEMED LIKE AN OPTION... AN UNEASY ONE, TROUBLESOME!

IT TOOK MONTHS OF... PERSISTENCE.

BUT I SAW IN HIM A CHANCE TO BECOME SOMETHING ELSE THAT THE WORLD NEEDED, A HERO...

HE SAW AN AVENUE INSTEAD, TO LET OUT WHAT I DESCRIBE AS... AN URGE.

... LOOK, MARCUS IS MORE OF A MYSTERY TO ME AS HE IS TO EVERYONE HE MEETS. I DON'T KNOW WHY HE'S A RAGING TUMOR HALF THE TIME, I DON'T EVEN KNOW HOW THIS 15 YEAR OLD IS AN ACE CAPOIERA FIGHTER!

... BUT HE SAID YES TO OUR CAUSE.

MAXSPEED.

COSTUME CHOICE; WELL HE WENT MORE CASUAL INSTEAD, SPANDEX WASN'T HIS THING, EMBLEM WAS MY IDEA.

HIDDEN AGENDA? DOUBT IT... NOT THAT I DON'T WANT TO BELIEVE IT, IT'S JUST... I KNOW HIM. BUT HE HAS HIS SECRETS AND IT'S EATING HIM UP



WE'VE ALREADY  
GONE THROUGH  
NUTECH!

HE'S AN  
OPEN BOOK.

TECHNOPATH... PERHAPS THE  
MOST POWERFUL WE'VE COME  
ACROSS, BUT HE HASN'T QUITE  
REACHED HIS FULL POTENTIAL...  
WE SHOULD CREATE A SYSTEM  
OF CLASSIFICATION FOR  
POWER LEVELS---

CONFIDENTIAL,  
ABI?

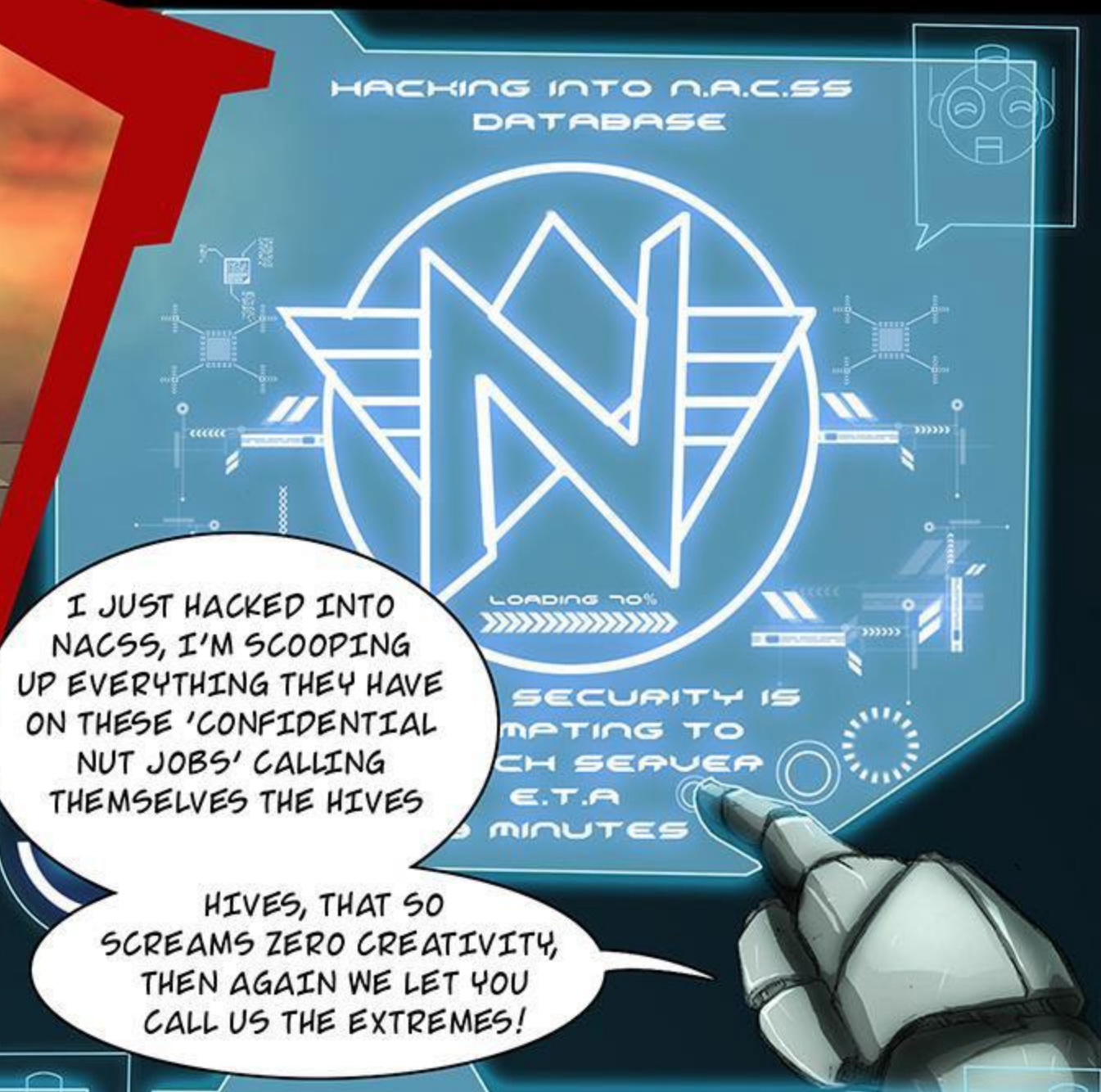
HE DEVELOPED SOME  
NANITES WHEN WE  
HAD OUR METEOR INCIDENT,  
THAT FORMS WHAT WE SEE  
AS HIS SUIT. THAT'S  
WHY THE METALS HE FORMS,  
BONDS WITH THEM.

TECHNOPATH, ON ONE HAND WE KNOW  
THAT MEANS HE CONTROLS ELECTRONIC  
MACHINERY. I MEAN AFTER WE TOOK DOWN  
THE HIVES, HE DISASSEMBLED THEIR  
ARMORED VAN AND CONSTRUCTED A BIKE  
OUT OF IT, JUST FOR TRIPS. CYBERPATHY  
ON THE OTHER HAND ALLOWS HIM TO  
CONTROL SOFTWARES. LIMITED KINETIC  
CONTROL OVER METAL ETC

BUT YOU ALREADY KNOW  
THAT, THAT'S SURFACE  
LEVEL INFORMATION, YOU  
WANT DEEPER.



WHAT'S CONFIDENTIAL? WHAT HAVE YOU GOT?

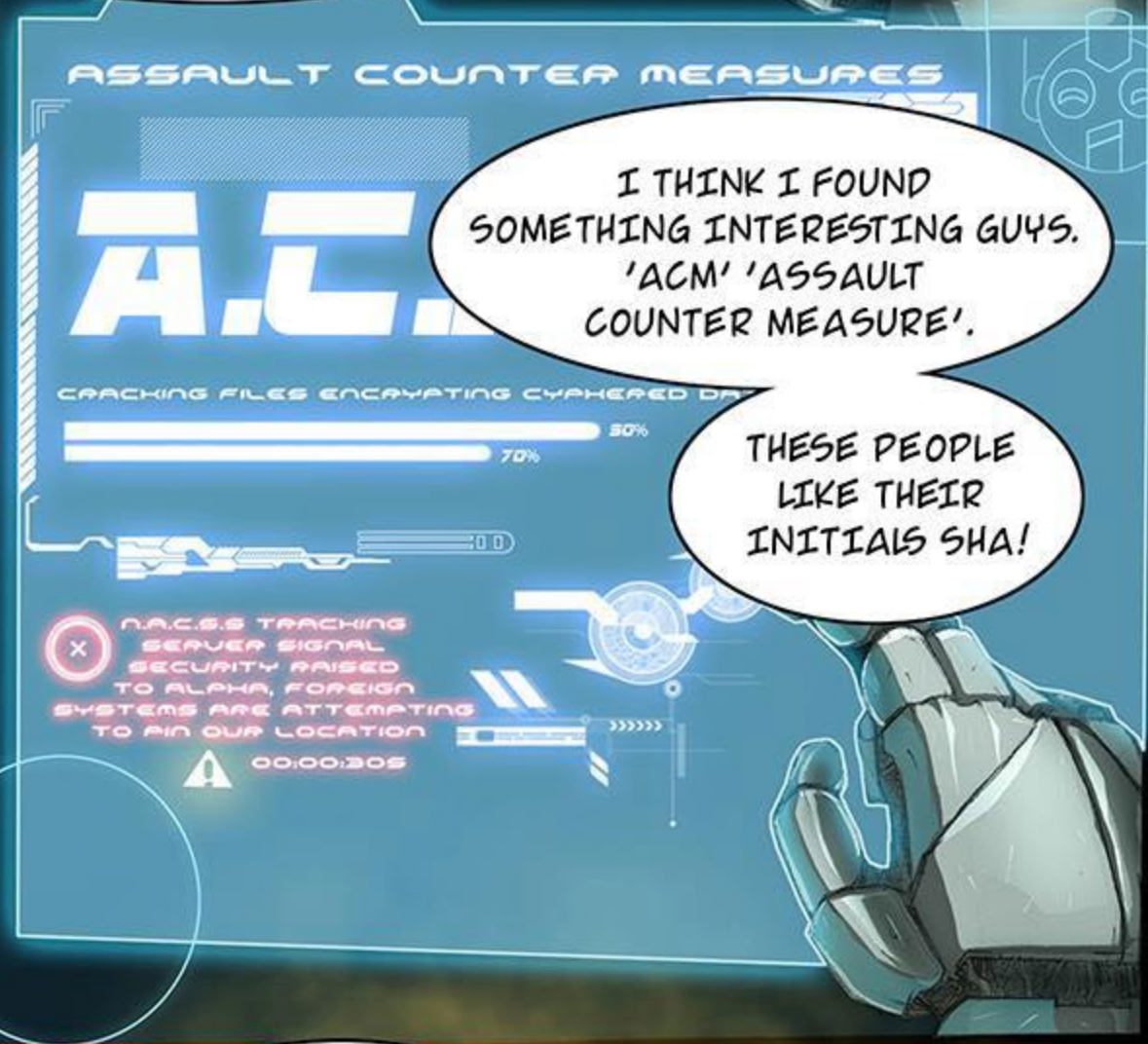


I JUST HACKED INTO NACSS, I'M SCOOPING UP EVERYTHING THEY HAVE ON THESE 'CONFIDENTIAL NUT JOBS' CALLING THEMSELVES THE HIVES

HIVES, THAT SO SCREAMS ZERO CREATIVITY, THEN AGAIN WE LET YOU CALL US THE EXTREMES!

H.I.V.E.S, H-I-V-E-S. IT ACTUALLY STANDS FOR HUMAN INITIATIVE AGAINST VIOLENT ENVIRONMENTAL SITUATIONS... WHAT HAPPENED TO 'A' NA?

A FAILED PROGRAM THAT WAS DEVELOPING SUPER SUITS, AFTER IT WAS ABANDONED, IT WAS HIJACKED BY A TERRORIST GROUP OF SOLDIERS. THAT EXPLAINS HOW THEY GOT SUCH TECH... WHAT'S THIS?



I THINK I FOUND SOMETHING INTERESTING GUYS. 'ACM' 'ASSAULT COUNTER MEASURE'.

THESE PEOPLE LIKE THEIR INITIALS SHA!



GUYS, YOU'VE GOT TO TAKE A LOOK AT THIS! THEY FOUND A...



HAYCE! EXCUSE ME, WETIN UNA DEY DO FOR THERE?

YOU!

MAX DONT!

YOU WANT TO KNOW ABOUT NETWORK.

THIS IS FROM MY REPORT...



NETWORK WAS THE FORMAL IDENTITY OF JOSHUA MARTINS, NOW KNOWN AS NUTECH AS OF 8 MONTHS AGO.

THE CHARACTER WAS FIRST INTRODUCED TO THE WORLD 2 YEARS AGO AS AN ANONYMOUS CYBER INDIVIDUAL OPERATING A WORLDWIDE COMMUNICATIONS NETWORK AND USING IT TO TAKE DOWN CRIMINALS BY LEAKING INFORMATION TO SECURITY ARMS OF THE GOVERNMENT



AS OF THE FIRST YEAR OF NETWORK'S APPEARANCE, I DID NOT KNOW HIS IDENTITY, BUT THE LIST OF CRIMINALS HE HAD TAKEN DOWN HAD GROWN. QUESTIONS ABOUT HIS IDENTITY GREW, AND THE GOVERNMENT HEAVILY SUSPECTED AN ANONYMOUS GROUP KNOWN AS THE HACK-TIVISTS.

MY SUSPICION AS AT THEN; A PARAHUMAN CYBERPATH, BUT STILL YET UNCONFIRMED

SSS HEADQUARTERS...

THIS BREAKTHROUGH TODAY DOESN'T REST SOLELY ON ME OR THE POLICE, BUT RATHER THE ANONYMOUS CYBER INDIVIDUAL KNOWN AS NETWORK

IF NOT FOR HIS INTERVENTION, BY ALERTING US FROM WHEREVER HE WAS, THINGS WOULDN'T HAVE TURNED OUT LIKE THIS. SO ON BEHALF OF---

POWERBOX! WOULD YOU ADMIT TO BEING MORE EFFECTIVE THAN THE POLICE OR THE COSTUMED SUPERHEROES WE'RE ACCUSTOMED TO?



ONE YEAR AGO, THE CYBER 'VIGILANTE' REACHED ME...

HE HACKED MY COMPUTER AND WAS ABLE TO MAKE CONTACT. HE ARRANGED A MEETING, I WENT ALONE, AS INSTRUCTED.

21:38. WHERE IS HE?

!

POWERBOX?

IT'S ME, NETWORK, OR JUST CALL ME CHRIS FOR NOW!

HE WENT BY A FAKE ALIAS AT FIRST DUE TO REASONS OF TRUST AND CONFIDENTIALITY. CALLING HIMSELF CHRIS INSTEAD OF JOSHUA.

AT THE POINT OF OUR FIRST MEETING I WAS STILL UNSURE WHETHER I WAS SPEAKING TO THE REAL NETWORK OR A FRONTMAN DUE TO AN ABNORMAL SOCIAL BEHAVIOUR



YOU, YOU'RE NETWORK?



...OKAY, CAN I STOP READING THIS REPORT, I HAVE IT ALL IN MY HEAD...

NETWORK WAS AN IDENTITY JOSHUA FELT MADE AN IMPACT, AS IT WAS ANONYMOUS.



SO IN THE TIME IT TOOK US TO ALLY OURSELVES WITH HIM, HE FASHIONED A NEW IDENTITY INSTEAD, AND THE NETWORK ALIAS REMAINED WHAT IT WAS...



NU-TECH WAS THE ON DUTY SOLDIER... OKAY LET ME NOT USE MILITARY TERMS... HERO.



OH! AND YES, THE BURNING BUILDING AFTER THE METEOR INCIDENT.

THAT WAS OUR FIRST TIME IN PUBLIC, THE THREE OF US... BUT YOU KNOW THAT ALREADY.



\*READ HERO GENERATION #1...



**IRETI**  
THE SERIES

**COMING SOON!!!**







THESE GUYS ARE IT...  
THEY'RE WHAT WE TALKED  
ABOUT...

MY BROTHERS,  
HAVE WE NOT FOUGHT  
FOR THEM? HAVE  
WE NOT DIED FOR THEM,  
BLED FOR THEIR CAUSELESS  
WARS?



THEY HAVE SENT  
CHILDREN, CHILDREN AFTER  
SOLDIERS. THEY  
THINK THEY CAN CRIPPLE US.  
THEY MAY HAVE  
SUCCEEDED IN SLOWING  
US DOWN BUT ONLY FOR  
A FRACTION!

I SAID I NEEDED  
A TEAM...



WE DID NOT  
RISE AGAINST THE  
GOVERNMENT TO  
BE STOPPED BY  
CHILDREN!

I FOUND THEM...



THIS IS  
STRATEGIC  
MANEUVERING.  
THE ART OF  
WAR.

THEY THINK  
WE ARE FAR,  
WE WILL SHOW  
THEM WE ARE  
CLOSE!

THEY NEED  
TRAINING,  
YES.



WE WILL  
RELEASE THIS  
PLAGUE. WE  
WILL SHOW  
THEM FEAR.

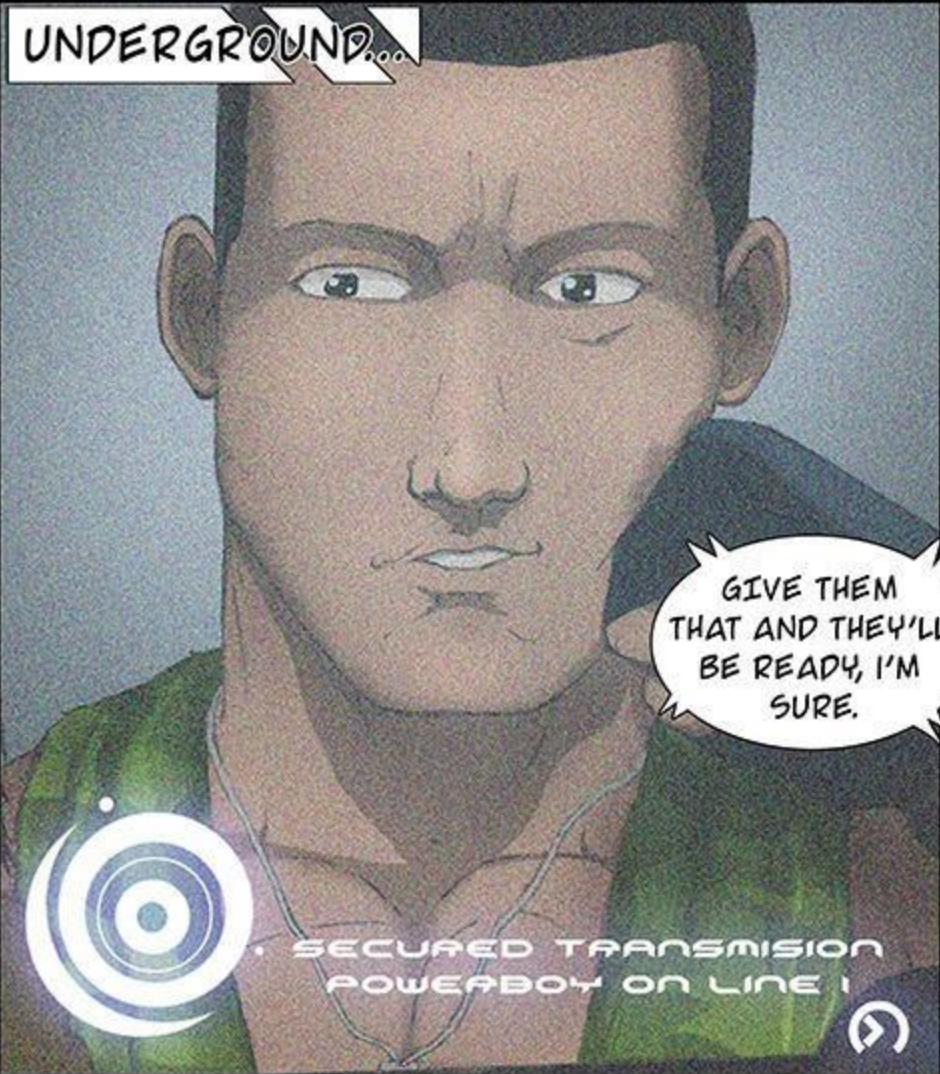
THEY NEED  
MORE THAN  
A YEAR...



SOMEWHERE IN THE OUTSKIRTS OF LAGOS...



UNDERGROUND...



GIVE THEM THAT AND THEY'LL BE READY, I'M SURE.

SECURED TRANSMISSION  
POWERBOY ON LINE!



TIME? THERE'S TIME. JUST BRING US RESULTS. WE NEED A READY TEAM ON STANDBY. AND YOU DIDN'T HANDLE THE METEOR INCIDENT PROPERLY AT ALL.

BUT THE TEAM'S REPORT SO FAR HAS BEEN PROGRESSIVE. WE'RE ALL TRYING TO MAKE THE WORLD SAFE.

THE EXTREMES' UNIT IS DOING A GOOD JOB. HAVE YOUR PERSONAL EVALUATION DRAFTED A-S-A-P, YOU'RE DISMISSED. GOOD JOB TOYE.



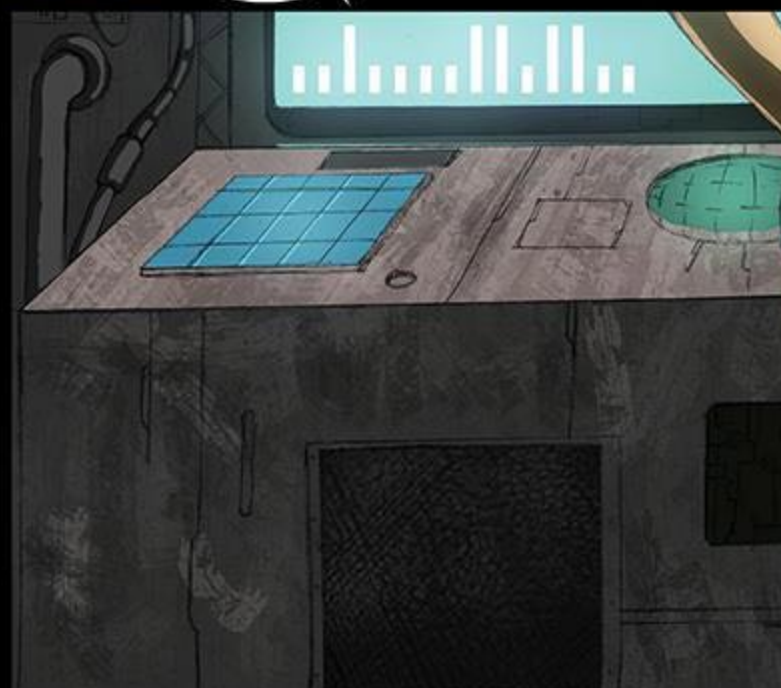
X DELETING COMMUNICATION FOOTPRINT

THANKS MA'AM!



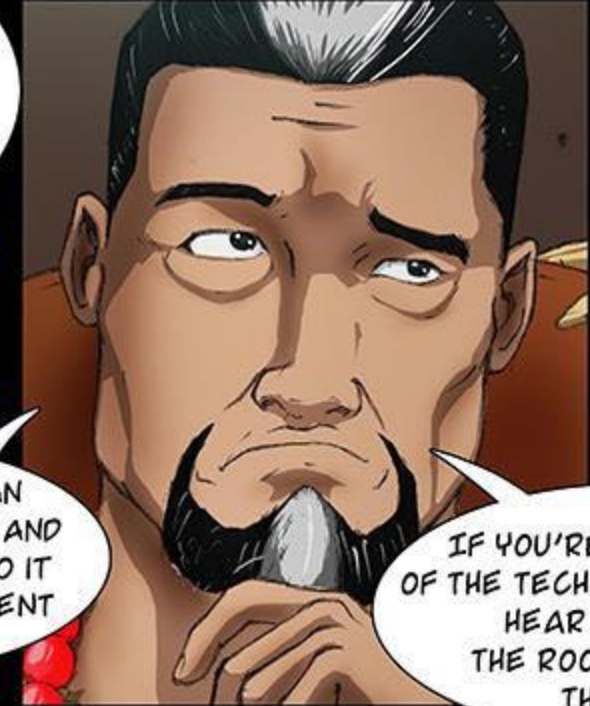
THERE'S TIME? HOW LONG?

AS LONG AS IT TAKES



NOT THAT, YOU KNOW THEY'LL FIND OUT SOON, PEOPLE ALWAYS DO... WAIT ARE WE?

YES, I CREATED AN ASTRAL DIMENSION AND MOVED US INTO INTO IT IMMEDIATELY HE WENT OFFLINE.



IF YOU'RE SUSPICIOUS OF THE TECHNOPATH, HE CAN'T HEAR OR SEE US. THE ROOM LOOKS JUST THE SAME.

WE HAVE TO KEEP MAKING THE THREE OF THEM BELIEVE THAT THIS IS JUST A FRONT FOR SUPERHEROES. AND THAT ALL WE'RE DOING IS TRAINING THEM TO GO OUT AND FIGHT CRIME...

WE KNOW WHERE THE REAL CRIME IS?

THE UNDERTAKING.

WE NEED TO INCREASE OUR NUMBERS.

I WAS ABLE TO TRACK THEM DOWN ALL THE WAY IN BAYEISA. THEY SEEM TO HAVE BEEN ACTING OUT ON THEIR OWN.

ILLUSORY CAPABILITIES THROUGH EYE CONTACT

MUSCLE MIMICRY



THEIR FULL POTENTIALS ARE STILL BURIED DEEP WITHIN.

MULTIPLE PARTICLE ABILITIES? NOW THAT'S RARE!

HAVE YOU MADE CONTACT?

ENHANCED REFLEXES  
ENHANCED HUMAN STRENGTH  
BY FACTOR OF 30



EDITH EFFIONG  
AKA JAZZ

WE'RE ABOUT TO...

VERY SOON.



SARAH OKUTE  
AKA TAG

TO BE CONTINUED...

# SUPER FACT

FOR AGES, HUMANKIND HAS DUG INTO THE MYSTERIES SURROUNDING THE EXACT COMPOSITION OF THE UNIVERSE. ANCIENT GREEKS WERE THE FIRST TO SURMISE THE EXISTENCE OF ATOMS, WHICH THEY BELIEVED TO BE THE SMALLEST PARTICLES IN THE UNIVERSE —THE "BUILDING BLOCKS" OF EVERYTHING. FOR ABOUT 1,500 YEARS, THAT WAS THE MOST WE KNEW ABOUT MATTER. THEN, IN 1897, THE DISCOVERY OF THE ELECTRON LEFT THE SCIENTIFIC WORLD IN SHAMBLES.

JUST AS MOLECULES WERE MADE OF ATOMS, NOW THE ATOMS APPEARED TO HAVE THEIR OWN INGREDIENTS. AND THE DEEPER WE LOOKED, THE MORE THE ANSWERS SEEMED TO FLIT THROUGH OUR FINGERTIPS, ALWAYS OUT OF REACH. EVEN PROTONS AND NEUTRONS—THE BUILDING BLOCKS OF ATOMS—ARE MADE OF EVER-SMALLER PIECES CALLED QUARKS. EVERY DISCOVERY JUST SEEMS TO RAISE MORE QUESTIONS. ARE TIME AND SPACE JUST BUNDLES AND CLUSTERS OF LITTLE CHARGED CRUMBS TOO SMALL TO EVEN SEE? MAYBE—BUT THEN AGAIN, THESE TEN THEORETICAL PARTICLES COULD EXPLAIN EVERYTHING. IF WE COULD ACTUALLY FIND THEM

ANDREW HANDLEY



# THE TEN PARTICLES



PREONS

The nucleus of an atom has seventy-nine protons. Each proton is made of three quarks. Now, the width of that gold atom's nucleus is about eight femtometers across. That's eight millionths of a nanometer, and a nanometer is already one billionth of a meter. So let's just agree that quarks are small, and realize that preons—sub-quark particles—would have to be so infinitesimally small that there is no scale right now which could measure their size. There are other words used to describe the theoretical building blocks of quarks, including primons, subquarks, quinks, and tweedles, but "preon" is generally the most accepted. And preons are important because right now, quarks are a fundamental particle—they're as low as you can go. If they were found to be composite, or made of other pieces, it could open the door to thousands of new theories. For example, one theory right now states that the universe's elusive antimatter is actually contained in preons, and therefore everything has bits of antimatter locked inside it. According to this theory, you're part antimatter yourself—you just can't see it because the matter pieces build into bigger blocks.



GRAVITONS

Right now, antiparticles are a huge problem in current particle physics theories. Care to hear about another problem? Gravity. Compared to other forces, like electromagnetism, gravity is weaker than sneezing your way through a fist fight. It also seems to change its nature based on the mass of an object—gravity is easy to observe in planets and stars, but get it down to the molecular level and it seems to do whatever it wants. And in addition to all that, it doesn't even have a particle to carry it, like the photons that carry light. That's where the graviton comes in. The graviton is the theoretical particle that would—sort of—allow gravity to fit in the same model as every other observable force. Because gravity exerts a weak pull on every object, regardless of distance, it would have to be massless. But that's not the problem—photons are massless and they've been found. We've gone so far as to define the exact parameters that a graviton would have to fit into, and as soon as we find a particle—any particle—that matches those parameters, we'll have a graviton. Finding it would be important because, as of now, general relativity and quantum physics are incompatible. But at a certain precise energy level, known as the Planck scale, gravity stops following relativity rules and slips into quantum rules. So solving the gravity problem could be the key to a unified theory.



GRAVIPHOTONS

There's another theoretical gravitation particle, and it's absolutely beautiful. The graviphoton is a particle that would be created when the gravitational field is excited in a fifth dimension. It comes from the Kaluza Klein theory, which proposes that electromagnetism and gravitation can be unified into a single force under the condition that there are more than four dimensions in spacetime. A graviphoton would have the characteristics of a graviton, but it would also carry the properties of a photon and create what physicists call a "fifth force" (there are currently four fundamental forces). Other theories state that a graviphoton would be a superpartner (like a sparticle) of gravitons, but that it would actually attract and repel at the same time. By doing that, gravitons could theoretically create anti-gravity. And that's only in the fifth dimension—the theory of supergravity also posits the existence of graviphotons, but allows for eleven dimensions.



STRANGELETS

According to the strange matter hypothesis, strangelets are created in nature when a massive neutron star—a high-mass collapsed star—builds so much pressure that the electrons and protons in its core fuse together, then collapse further into sort of a dense quark bubble, which we call strange matter. And since large strangelets can theoretically exist outside of those high pressure center-of-a-star environments, it's likely that they've floated away from those stars and into other solar systems—including our own. And this is where it gets crazy: if these things did exist, a large strangelet would be able to convert an atom's nucleus into another strangelet by colliding with it. The new strangelet could then collide with more nuclei, converting them into more strangelets in a chain reaction until all the matter on Earth had been converted into strange matter. In fact, the Large Hadron Collider facility had to put out a press release stating that they were unlikely to accidentally create strangelets that could destroy the planet. That's how seriously the scientific community takes the matter of strangelets.



TACHYONS

Nothing comes closer to breaching the known laws of relativity than a tachyon. It's a particle that moves faster than light, and if it existed it would suggest that the lightspeed barrier is . . . well, no longer a barrier. In fact, it would mean that the speed we know of—as the speed of light—would be the center point—just as normal particles can move infinitely slow (not moving at all), a tachyon existing on the other side of the barrier would be able to move infinitely fast. Bizarrely, their relationship to the speed of light would be mirrored. To put it simply, when a normal particle speeds up, its energy needs increase. To actually break through the lightspeed barrier, its energy needs would rise to infinity—it would need infinite energy. For a tachyon, the slower it goes, the more energy it needs. As it slows and approaches the speed of light from the other side, its energy requirements become infinite. But when it speeds up, the energy requirements decrease, until it needs no energy at all to move at infinite speed.



STRINGS

Nearly all of the particles we've talked about so far are called point particles; quarks and photons exist as a single point—a tiny little dot, if you will—with zero dimensions. String theory suggests that these elementary particles aren't actually points at all—they're strings, one dimensional particle strands. At its core, string theory is a Theory of Everything that manages to coexist with both gravity and quantum physics (based on what we know right now, those two can't physically exist in the same space—gravity doesn't work at the quantum level). So in a broad sense, string theory is actually a quantum theory of gravity. And for comparison, strings would replace preons as the building blocks of quarks while at higher levels everything remains the same. And in string theory, the string can turn into anything based on the way it's shaped. If the string is an open strand, it becomes a photon. If the ends of that same string connect and form a loop, it becomes a graviton—in much the same way that the same piece of wood can become either a house or a flute.



SPARTICLES

In particle physics, heavier particles decay faster than lighter particles. If a particle gets heavy enough, it breaks down almost immediately once it's created. So assuming the sparticles are incredibly heavy, they would break down in the blink of an eye, while their superpartners—the particles we can see and observe—live on. This could also explain why there's so much matter in the universe yet precious little dark matter, because the sparticles could comprise dark matter and exist in a field which is—so far—unobservable.



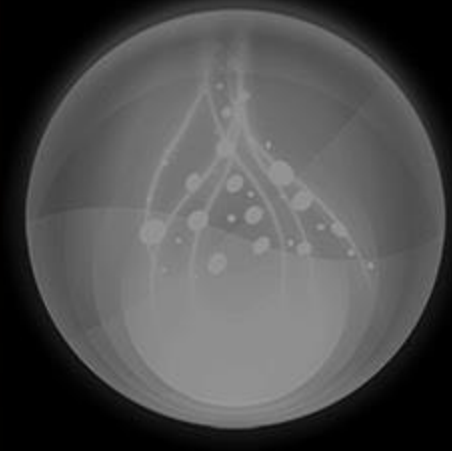
ANTIPARTICLES

Matter is made of particles—and in a similar way, antimatter is made of antiparticles. This all makes sense, right? Antiparticles have the same mass as normal particles, but an opposite charge and an opposite angular momentum (spin). It sounds like the supersymmetry theory, but unlike particles, antiparticles behave just like particles—even building into anti-elements, like antihydrogen. Basically, all matter has corresponding antimatter. Or at least, it should. That's the problem—there's plenty of matter around, but antimatter just doesn't really show up anywhere. (Except the Large Hadron Collider—full disclosure, antiparticles have been found and are no longer theoretical).



Z PARTICLES

Basically, the Z particle is produced in the Higgs field and was proposed as a way to explain why some particles that should have had mass were actually massless. The Higgs field—which had never been observed—would have to exist throughout the universe and provide the force needed for particles to acquire their mass. And if that were true, it would fill huge gaps in the Standard Model, which is the basic explanation of literally everything (except, as always, gravity). The Higgs boson is vital because it proves that the Higgs field exists, and explains how energy inside the Higgs field can manifest as mass. But it's also important because it sets a precedent; before it was discovered, the Higgs boson was just a theory. It had mathematical models, physical parameters that would allow it to exist, how it should spin—everything. We just didn't have any evidence of its existence whatsoever. But based on those models and theories, we were able to pinpoint a specific particle—the smallest thing in the known universe—that matched everything we'd hypothesized.



BRANES

If you really want an explanation of gravity, you have to look to M-theory, or Membrane theory. Membranes, or branes, are particles that are able to encompass multiple dimensions. For example, a 0-brane is a point-like brane that exists in zero dimensions, like a quark. A 1-brane has one dimension—a string. A 2-brane is a two-dimensional membrane, and so on. Higher dimensional branes can have any size—leading to the theory that our universe is really one large brane with four dimensions. That brane—our universe—is just a piece of multi-dimensional space. And as for gravity, our four-dimensional brane can't simply contain it, so gravity's energy leaks into other branes as it passes them in the multi-dimensional space; we just have the dribbles of what's left, which is why it seems so weak compared to other forces. Extrapolating that, it makes sense that there are many branes moving through this space—infinite branes in an infinite space. And from there we have the multiverse and cyclic universe theories. The latter states that the universe cycles itself; it expands from the energy of the Big Bang, then gravity pulls everything back into the same space for the Big Crunch. That compression energy sets off another Big Bang, bouncing the universe into another cycle, like a cell flaring into life and then dying.

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