

The **IEEE** **TWINS**

***Caught in
the Currents***



IEEE★USA

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For all engineers — and engineers to come — who do and
will do great things to make our world a better place.

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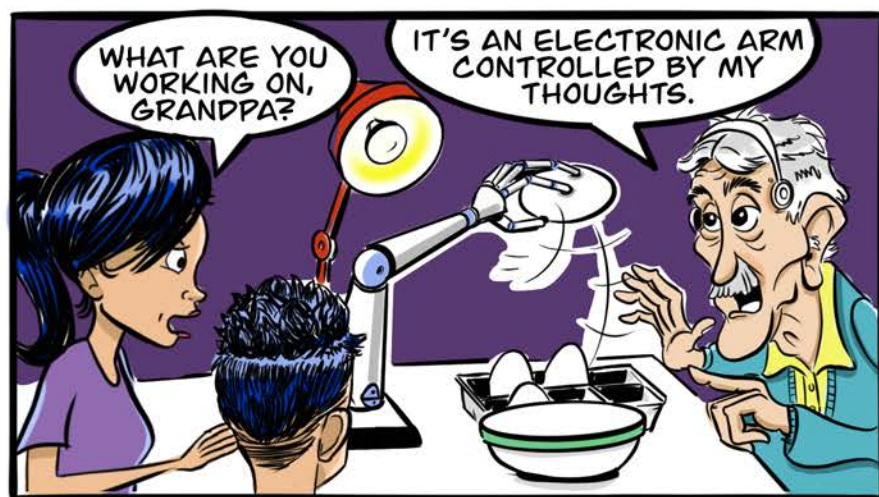
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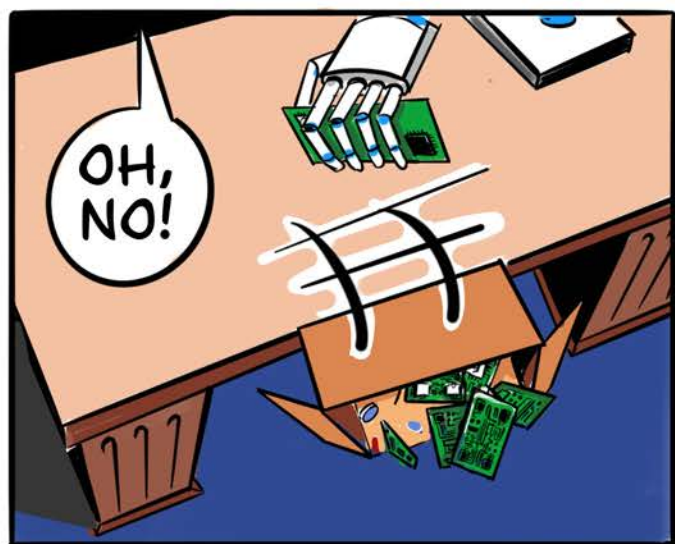
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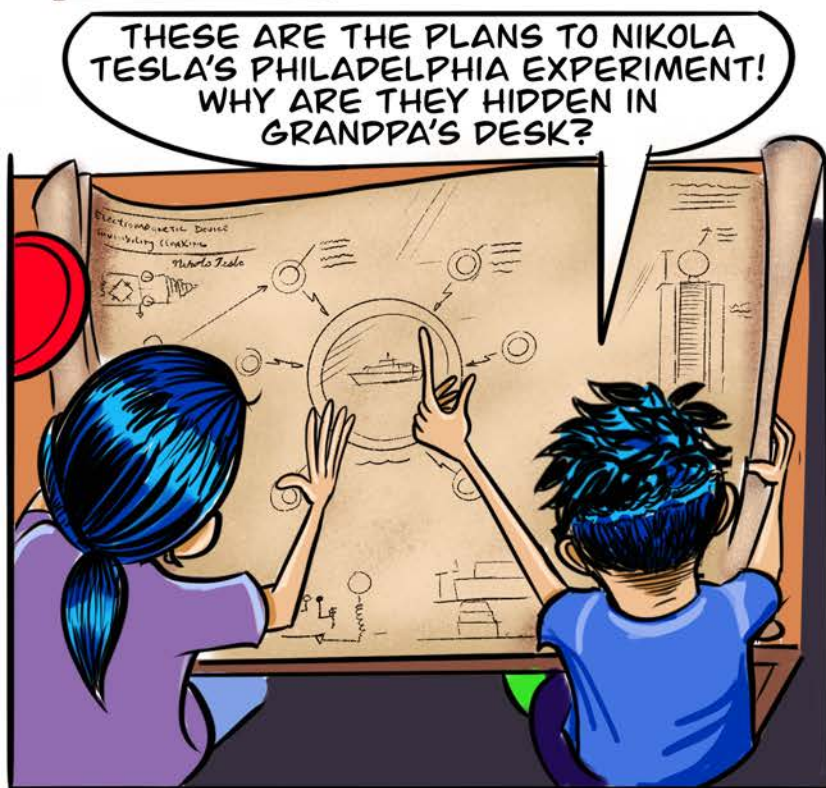
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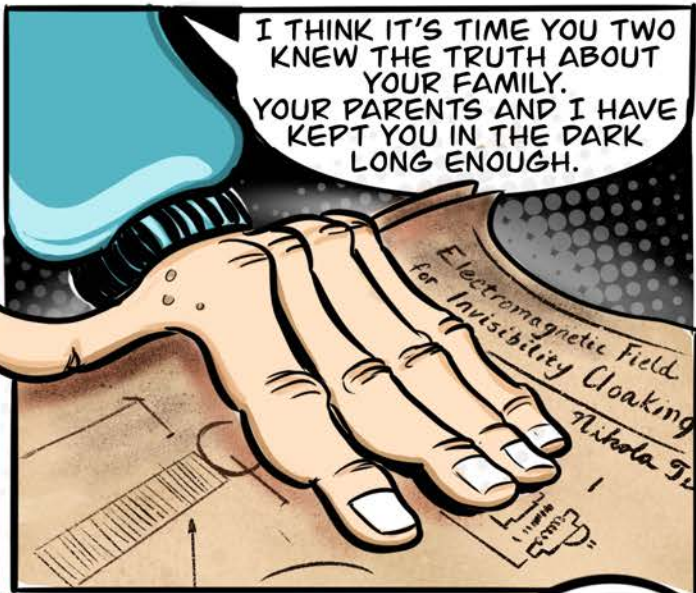


SINCE TRAGICALLY LOSING THEIR PARENTS, THE SLATE TWINS HAVE LIVED WITH THEIR GRANDFATHER, DANE SLATE. THEY COME FROM A LONG LINE OF GENIUS INVENTORS, SO GRANDPA DANE PUSHES THEIR CURIOSITY DAILY.









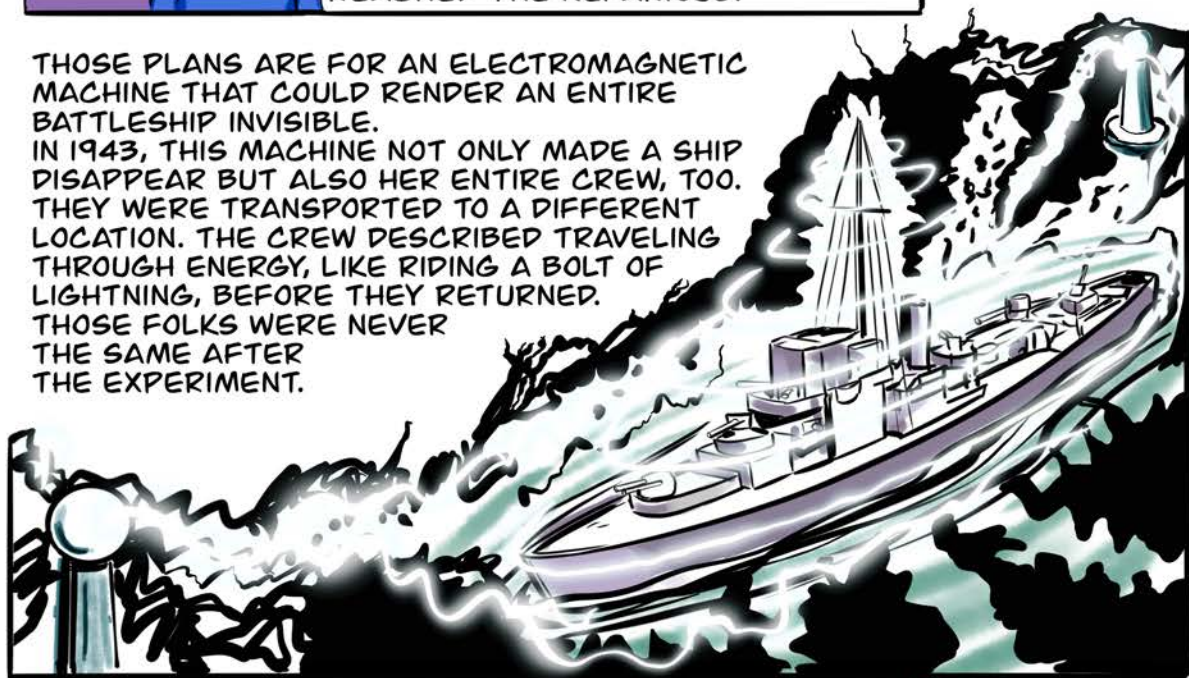
YOUR GREAT-GRANDFATHER WAS NIKOLA TESLA. AS YOU KNOW, TESLA CREATED, DEVELOPED, AND DEVISED HUNDREDS OF ELECTRICAL INVENTIONS. "SLATE" IS AN ANAGRAM OF TESLA. WE HAVE HIDDEN OUR TRUE IDENTITY TO KEEP THE MOST DANGEROUS INVENTIONS OUT OF THE HANDS OF EVIL PEOPLE.

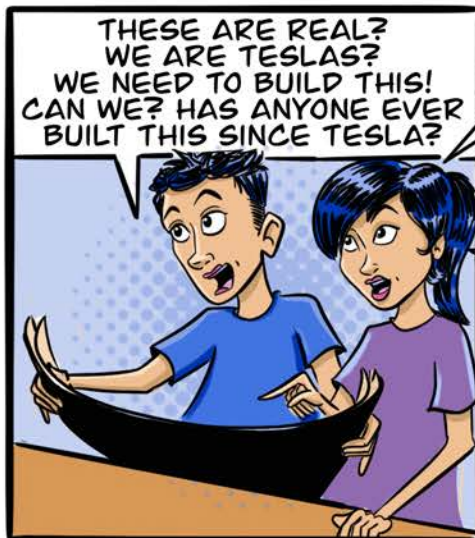


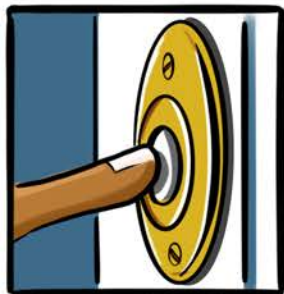
WHAT?! OUR NAME IS TESLA, NOT SLATE?

NO. YOU ARE TESS AND NICK TESLA. NO ONE CAN KNOW THIS. THE WORLD WOULD BE IN PERIL IF HIS PLANS FOR THE PHILADELPHIA EXPERIMENT AND SOME OF HIS OTHER IDEAS EVER REACHED THE NEFARIOUS.

THOSE PLANS ARE FOR AN ELECTROMAGNETIC MACHINE THAT COULD RENDER AN ENTIRE BATTLESHIP INVISIBLE. IN 1943, THIS MACHINE NOT ONLY MADE A SHIP DISAPPEAR BUT ALSO HER ENTIRE CREW, TOO. THEY WERE TRANSPORTED TO A DIFFERENT LOCATION. THE CREW DESCRIBED TRAVELING THROUGH ENERGY, LIKE RIDING A BOLT OF LIGHTNING, BEFORE THEY RETURNED. THOSE FOLKS WERE NEVER THE SAME AFTER THE EXPERIMENT.







WHO COULD THAT BE?



HEY, GRANDPA "S"! OR SHOULD I SAY, GRANDPA "T"?

WHAT?

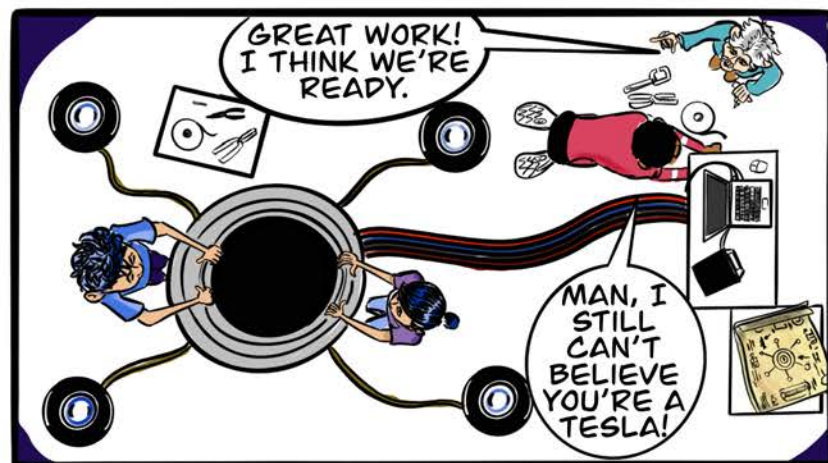
I ASKED WALTER IF HE WOULD HELP.



WALTER IS MY BEST FRIEND AND THE SMARTEST KID I KNOW. PLUS, HE'S A WHIZ AT ELECTRONICS.



YOUR SECRET IS SAFE WITH ME. SCOUT'S HONOR.

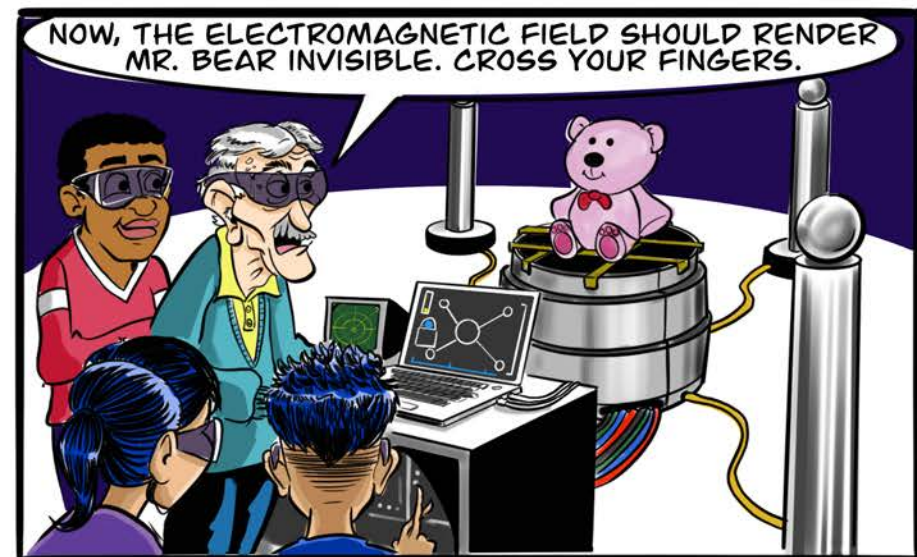


GREAT WORK! I THINK WE'RE READY.

MAN, I STILL CAN'T BELIEVE YOU'RE A TESLA!

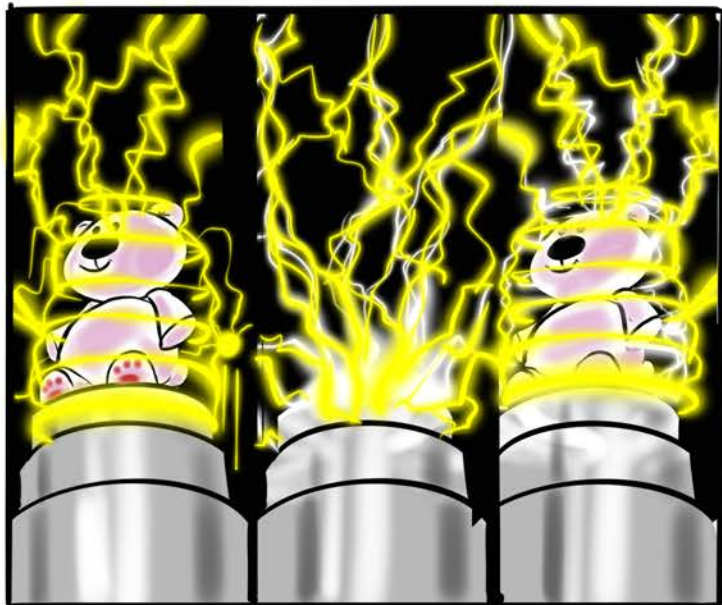


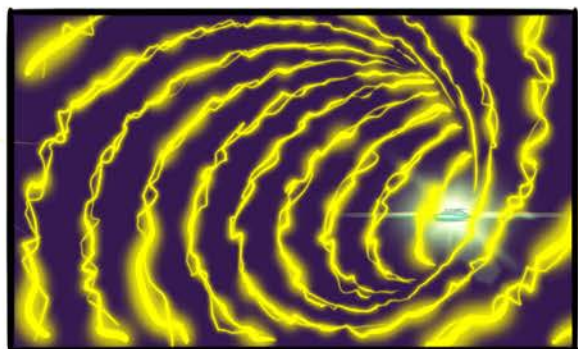
TIME TO TRY IT! GOOD LUCK, HUGGY BEAR.



NOW, THE ELECTROMAGNETIC FIELD SHOULD RENDER MR. BEAR INVISIBLE. CROSS YOUR FINGERS.

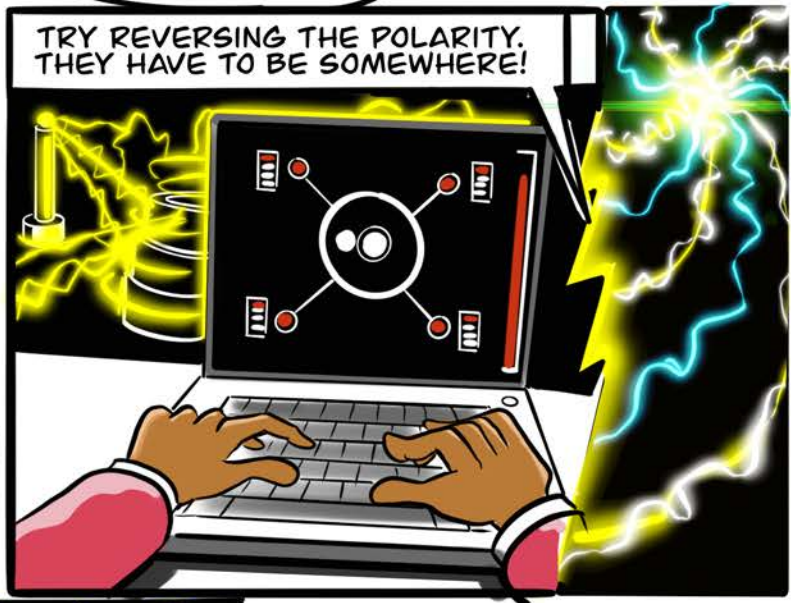








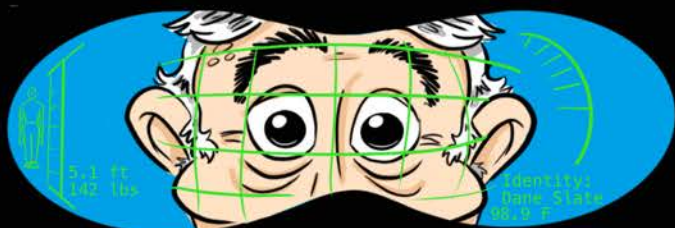
WHAT'S ALL THE NOISE IN HERE? WHY IS THE EXPERIMENT STILL ON?



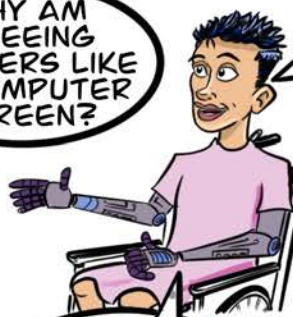


AFTER MONTHS OF RECOVERY, THE TWINS WERE FITTED WITH THE MOST ADVANCED PROSTHETICS KNOWN.

TESS!
CAN YOU SEE ME?
IT'S GRANDPA.



WHY AM I SEEING NUMBERS LIKE A COMPUTER SCREEN?



THAT'S NOTHING. I CAN LIGHT A ROOM, CHANGE THE CHANNEL AND CRUSH CANS WITH MY NEW ARMS.

I CAN EXPLAIN. I'VE TOLD YOU ABOUT YOUR PARENTS' BOSS, BUCK GAINS.



I'M SEEING HEAT, ELECTRICITY, MEASUREMENTS....

ALL I HAVE TO DO IS THINK ABOUT WHAT I WANT IT TO DO. I FEEL THINGS!



HE'S ALWAYS FELT RESPONSIBLE FOR THEIR DISAPPEARANCE AND PASSING. WELL, HE ...

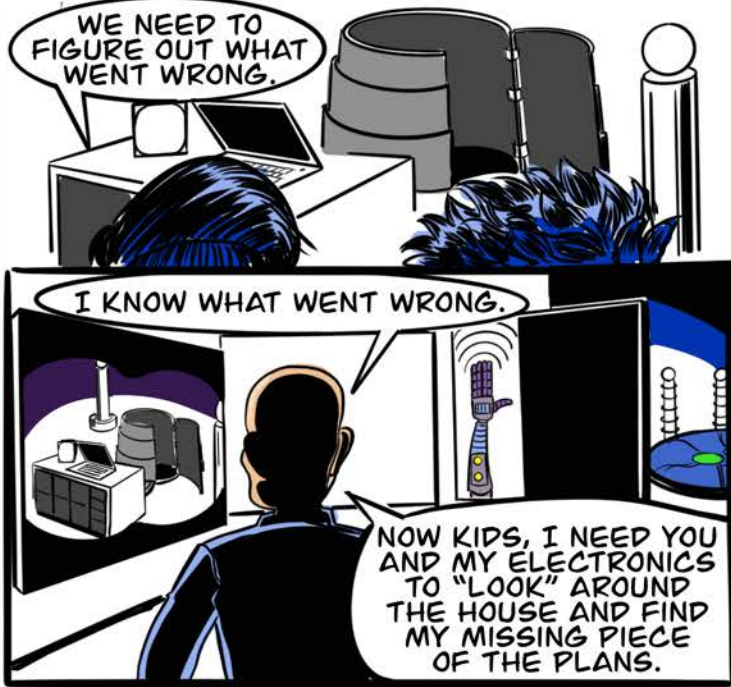
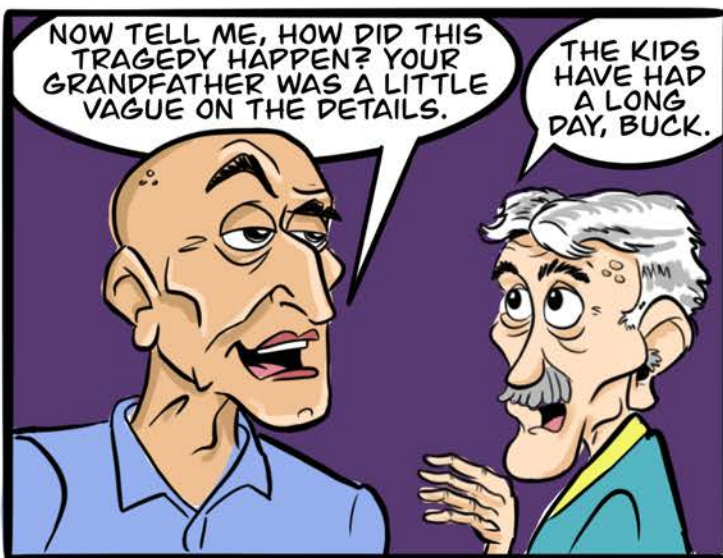


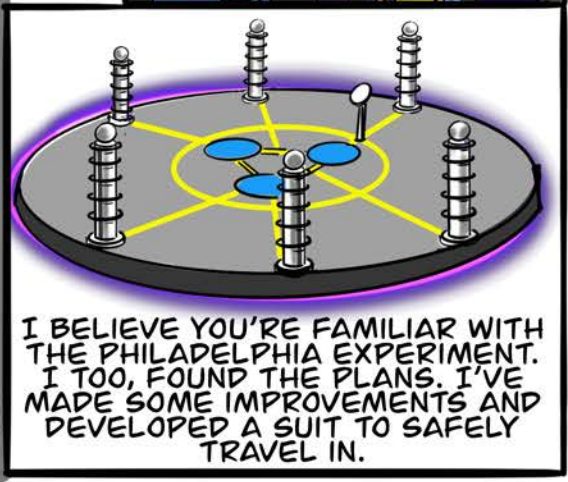
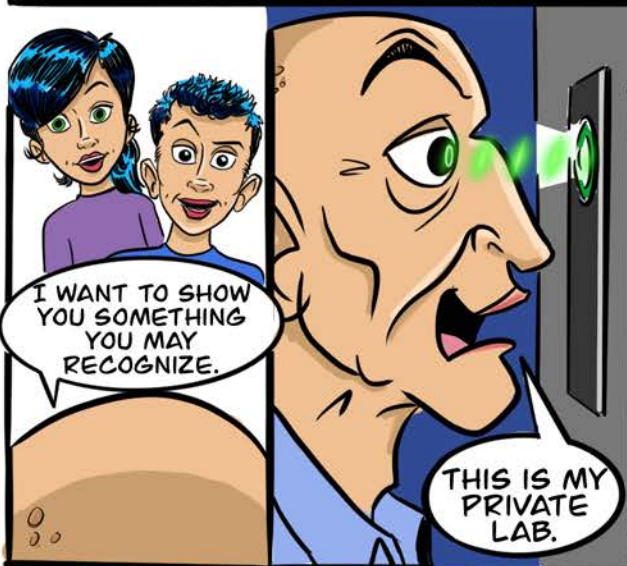
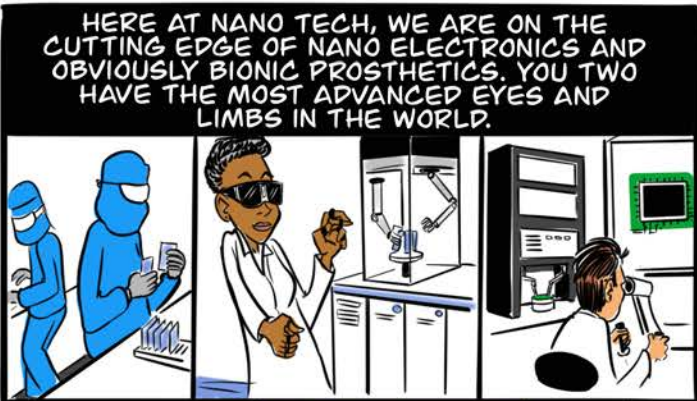
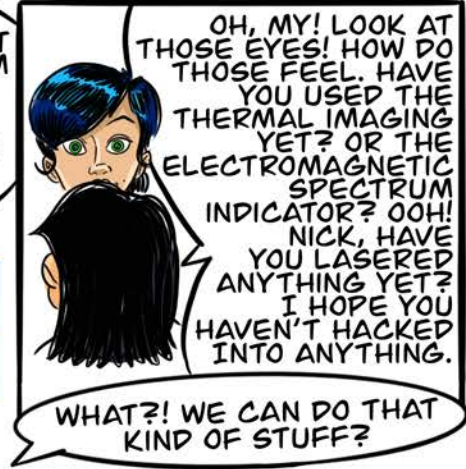
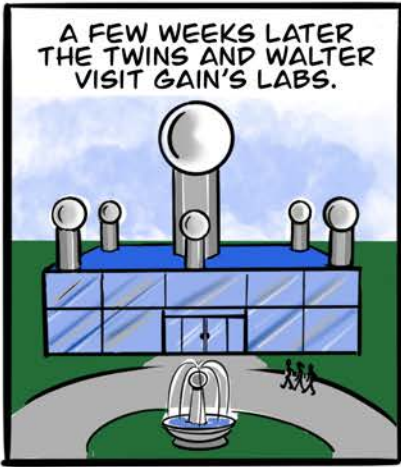
HELLO, SLATE TWINS! IT'S BEEN A LONG TIME. I'M BUCK GAINS. I HOPE YOU'RE ADJUSTING TO YOUR NEW PROSTHETICS. I HAD THOSE MADE ESPECIALLY FOR YOU TWO. I WOULD DO ANYTHING FOR YOUR FAMILY. YOUR PARENTS WERE DEAR FRIENDS TO ME.



AND TO THIS MAN, I OWE ALL MY SUCCESS. AS YOUR PARENTS' FRIEND, GROWING UP, HE TOOK ME IN AND CHALLENGED ALL THREE OF US TO EXPLORE THE WORLD OF ELECTRONICS AND IMAGINE IT'S FUTURE.









A SIMPLE ACCIDENT LED ME TO THE TESLA SECRET.



I KNEW HE WOULDN'T APPROVE. I TOOK PHOTOS OF THE PLANS AND BUILT IT AT MY HOME.



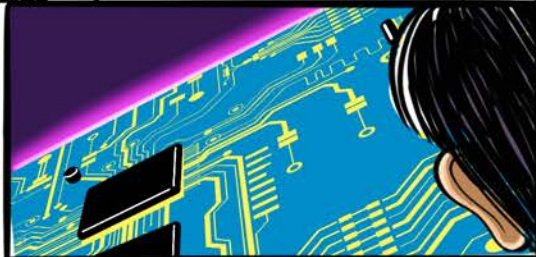
IT WAS FATE THAT I FOUND THE PLANS HIDDEN IN THE DESK.



I WAS DRAWN INTO THE ELECTRICITY. THIS FIRST STOP WAS THE CIRCUITRY CONTROLLING THE NEAREST CIRCUIT BOARD.



YES! WE SAW THE CIRCUITRY. WE DIDN'T KNOW WHERE WE WERE.



IT WAS MY BOARD. I FOUND THAT I COULD TRAVEL THROUGH THE ELECTRICITY TO ANYTHING ELECTRICALLY CONNECTED.



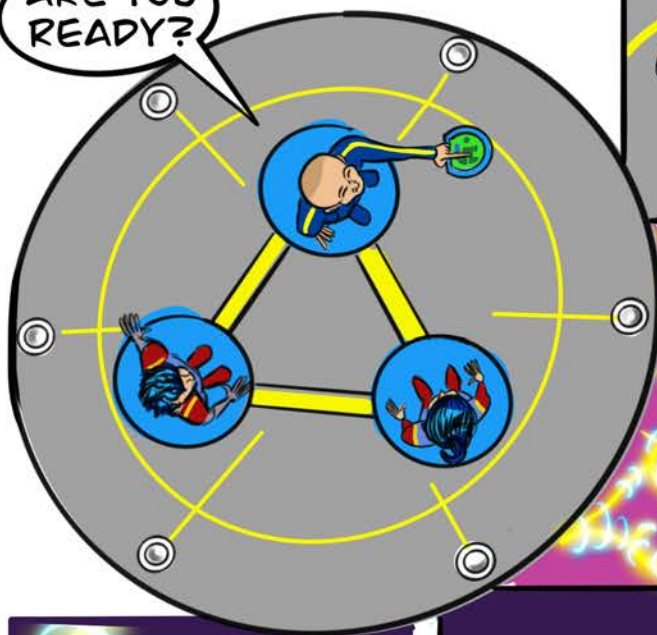
I HAVE BEEN DEVELOPING MY NANO TECHNOLOGY IN WAYS NO ONE COULD IMAGINE, THANKS TO YOUR GREAT-GRANDFATHER, NIKOLA TESLA! HOW WOULD YOU TWO LIKE TO TRAVEL TO SEE WHAT I'VE BEEN WORKING ON FOR YEARS?

IT WILL BE SAFE, I ASSURE YOU. HERE, YOU'LL NEED THESE. THEY ARE DESIGNED TO PROTECT YOU FROM THE ELECTRIC CURRENTS AND WILL WORK WITH YOUR PROSTHETICS.

WOW!

ARE YOU READY?

WE WILL BE TAKEN INTO THE ELECTRICITY DIRECTLY ONTO THE BOARD. TESS, YOU DON'T KNOW THIS, BUT YOUR EYES HAVE BEEN DESIGNED TO SEE THE DIRECTION OF ELECTRICITY.

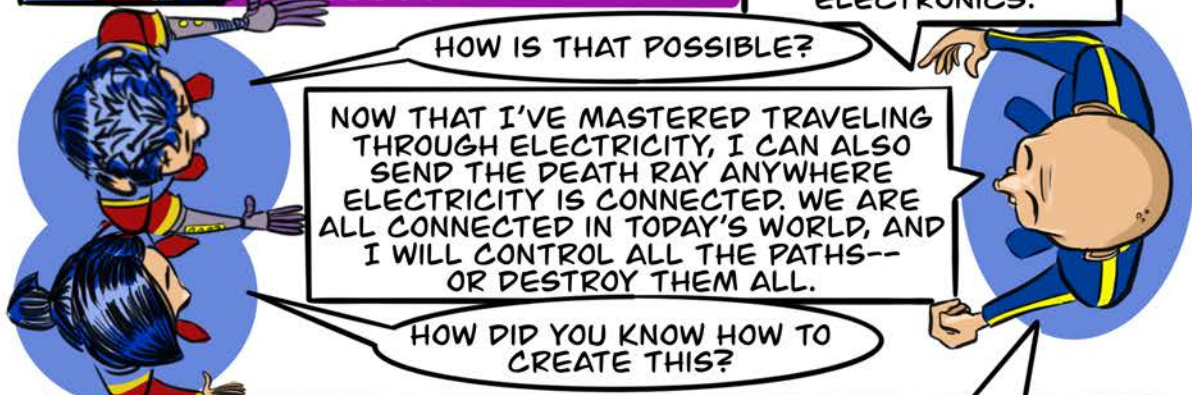
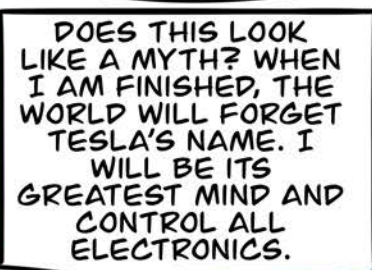


I SEE IT!

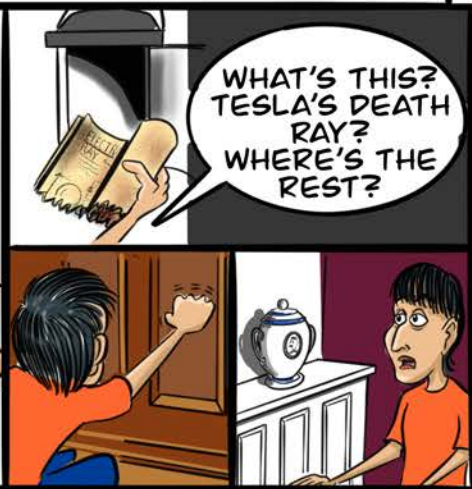
WELCOME TO MY HOME AWAY FROM HOME. OF COURSE, YOUR FAMILY HAD A LOT TO DO WITH IT.

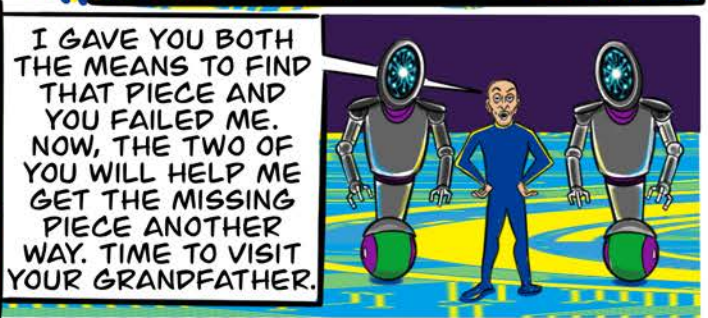
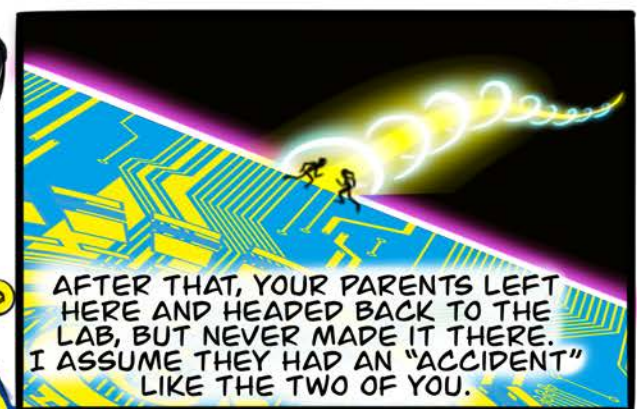
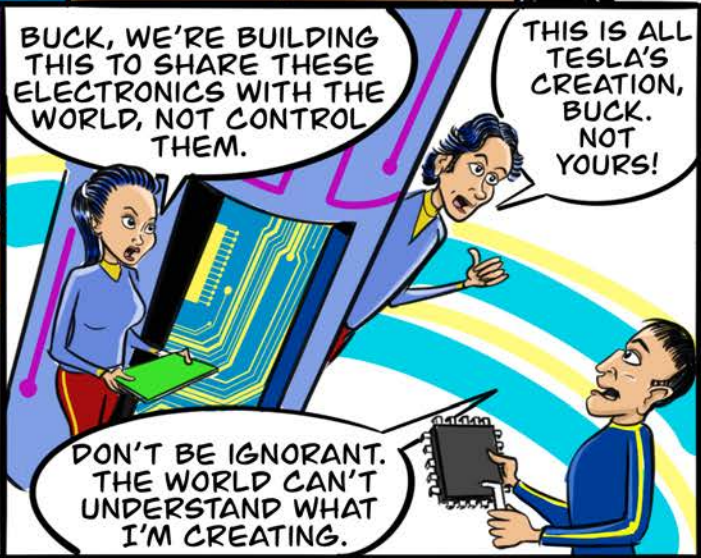


HERE WE ARE!



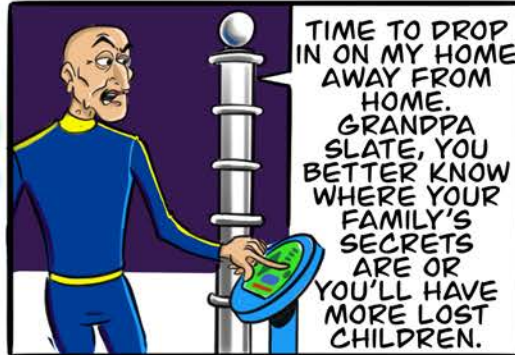
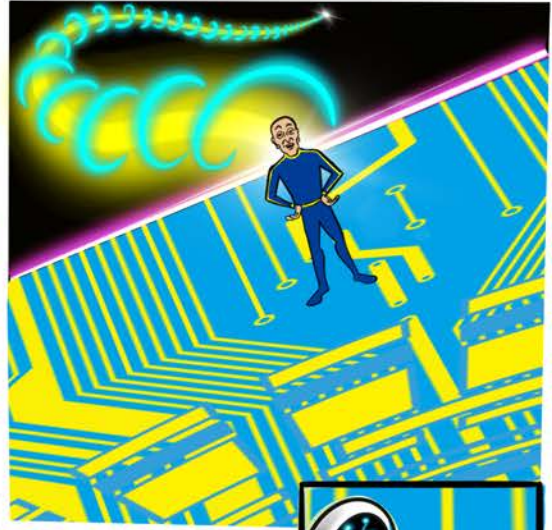
AFTER FINDING THE PLANS FOR THE PHILADELPHIA EXPERIMENT, I ASSUMED THERE HAD TO BE MORE SECRETS HIDDEN AWAY. I LOOKED EVERYWHERE. AND THEN I FOUND PART OF THE **DEATH RAY**'S PLANS, HIDDEN IN THE BUST OF YOUR GRANDFATHER "SLATE".







YOU STAY HERE WHILE I SURPRISE YOUR GRANDFATHER. I HAVE ONE MORE THING I NEED FROM HIM, AND HE BETTER HAVE IT!



TIME TO DROP IN ON MY HOME AWAY FROM HOME. GRANDPA SLATE, YOU BETTER KNOW WHERE YOUR FAMILY'S SECRETS ARE OR YOU'LL HAVE MORE LOST CHILDREN.



HI, MR. GAINS! HAVE YOU SEEN TESS AND NICK?

THEY ARE WORKING ON AN EXPERIMENT FOR ME. I'VE GOT TO GO.

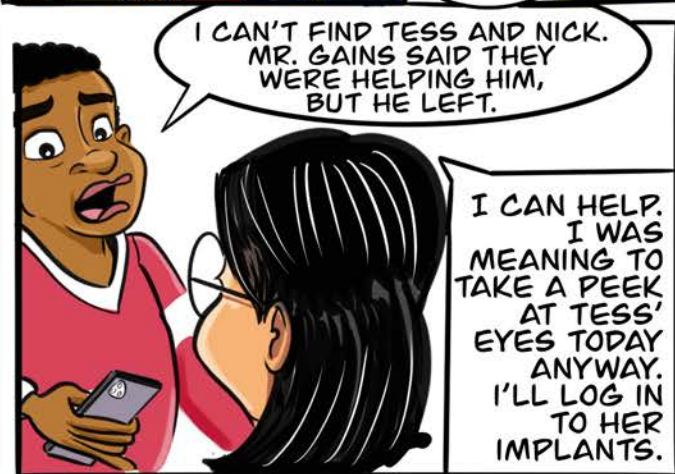


I CAN'T GET A HOLD OF THEM. THEY'D ASK ME TO HELP WITH ANY EXPERIMENTS.

MY MOM CAN HELP.



WHAT'S GOING ON YOU TWO?



I CAN'T FIND TESS AND NICK. MR. GAINS SAID THEY WERE HELPING HIM, BUT HE LEFT.

I CAN HELP. I WAS MEANING TO TAKE A PEEK AT TESS' EYES TODAY ANYWAY. I'LL LOG IN TO HER IMPLANTS.



WHOA! WHERE IS THIS? THEY LOOK LIKE THEY'RE IN TROUBLE!

SHE WILL SEE THIS IN
HER VISION DISPLAY.

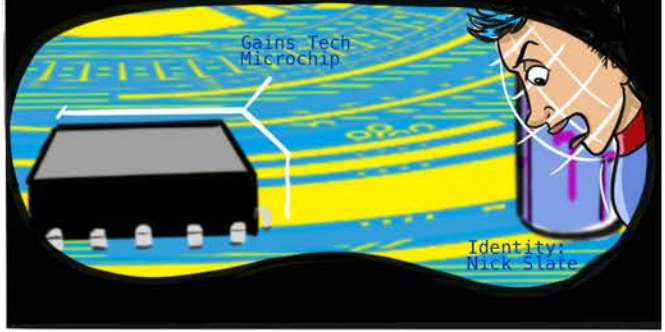


Tess! This is Lily.
Sorry, I'm peeking in
your eyes.
Where are you? Talk
and your speech
will be transcribed for me.



JUDITH'S MOM IS TALKING TO ME
THROUGH MY EYES!

Tess! This is Lily.
Sorry, I'm peeking in your eyes.
Where are you? Talk and your speech
will be transcribed for me.



GREAT SHE SEES IT.
NOW, LET ME ACTIVATE NICK'S
SYSTEMS.

NICK! TESS! DO
YOU HEAR ME?



ASK
HER
FOR
HELP!

YES!
WE HEAR YOU! WE'RE
TRAPPED IN CIRCUITRY.
IT'S HARD TO EXPLAIN.
WE NEED HELP.

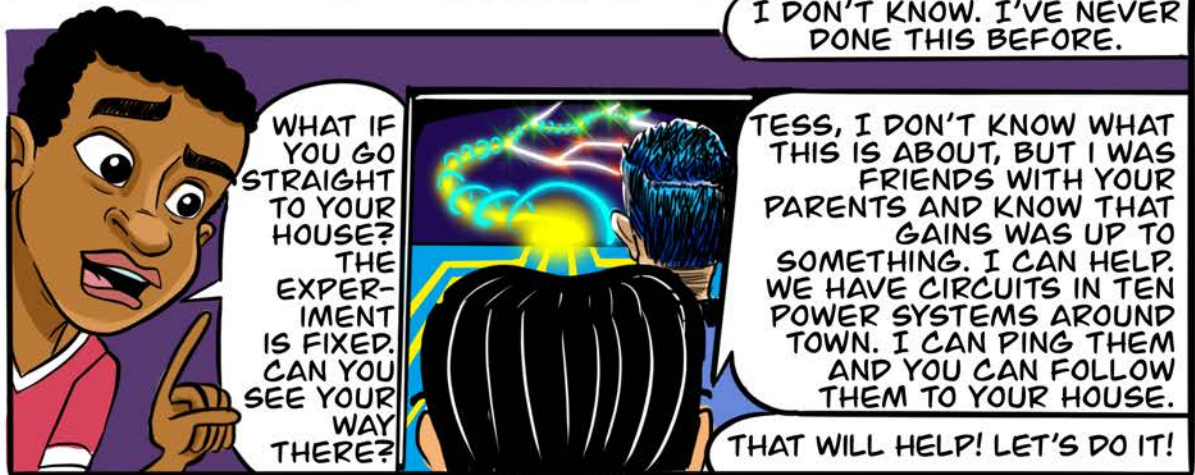
I'M UNLOCKING NICK'S
LASERS.

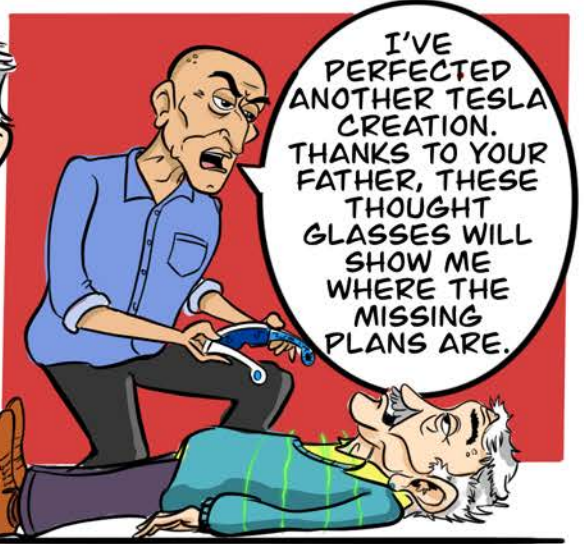
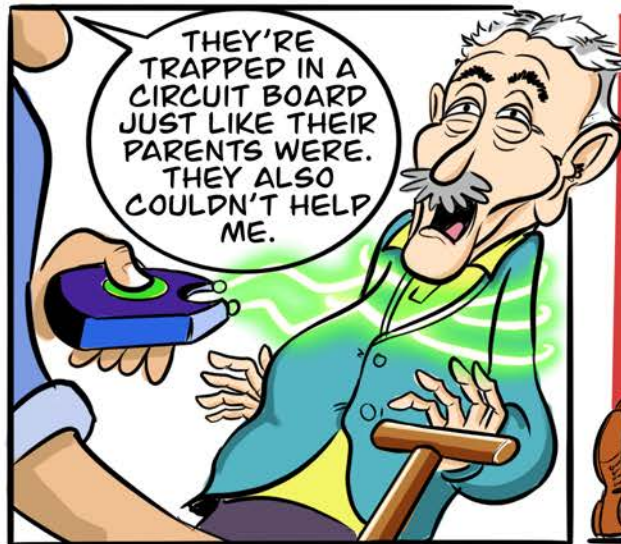
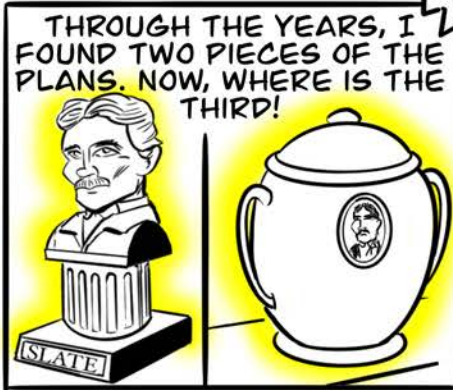
YES, LASERS. NICK, CONCENTRATE
ON YOUR FINGERTIPS CUTTING THE
BINDS. YOUR LASERS WILL KICK IN.
BE CAREFUL!

NICK!
TESS! DO
YOU HEAR
ME?

LASERS!

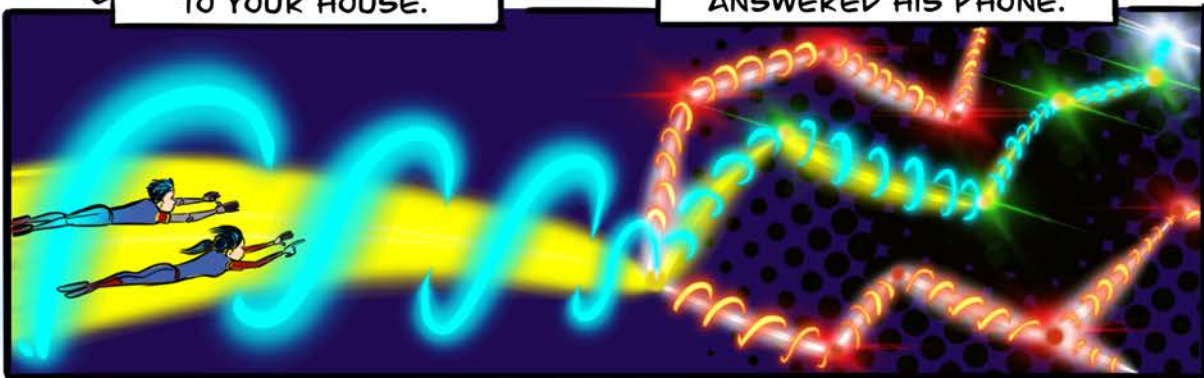






FOLLOW THE BEACONS
TO YOUR HOUSE.

YOUR GRANDFATHER HASN'T
ANSWERED HIS PHONE.



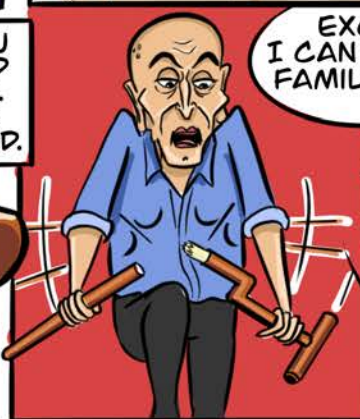
WE'RE
ALMOST
THERE!



THERE YOU GO,
DANE. I KNEW YOU
COULDN'T HIDE IT
FROM ME.



BRILLIANT! YOU
HAD IT IN HAND
ALL THE TIME.
I WOULD HAVE
NEVER GUESSED.



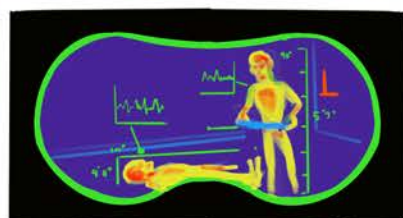
EXCELLENT.
I CAN FINISH YOUR
FAMILY'S LEGACY
NOW.



WE'RE
HERE!

TESS, USE YOUR
EYES TO SEE
WHO IS HOME.

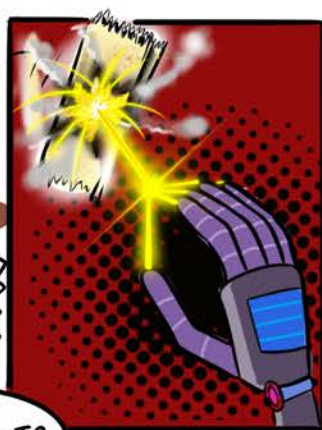
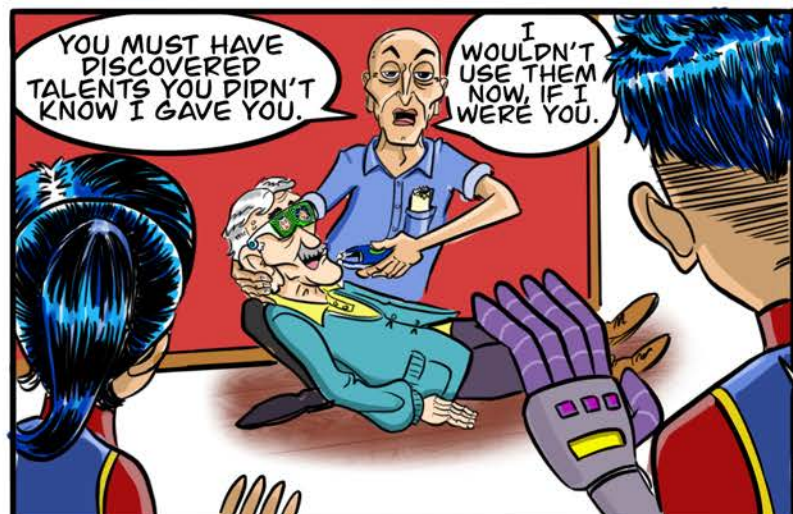
OK!

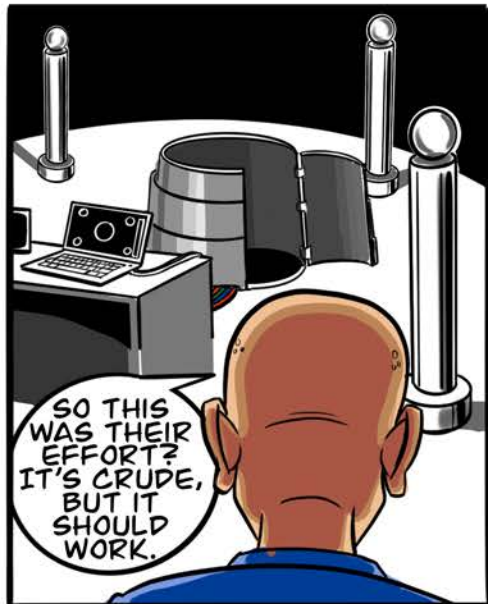


HE'S HERE! I THINK
GRANDPPA IS HURT.



WHO IS HERE?





SO THIS WAS THEIR EFFORT? IT'S CRUDE, BUT IT SHOULD WORK.

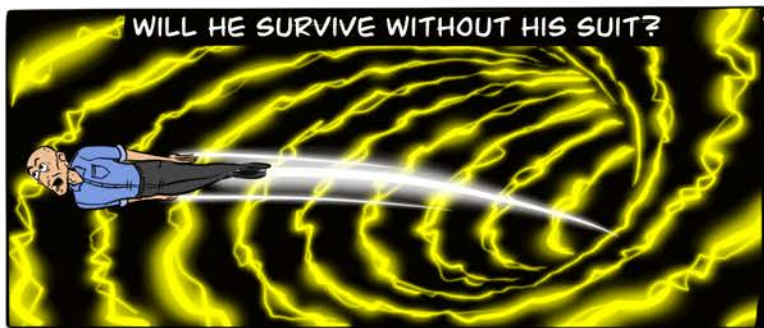


I'M GLAD YOU'RE SAFE.

JUDITH, GAINS IS USING OUR DEVICE TO GET BACK TO HIS LAB.



NICK, WE'LL DIRECT HIM BACK TO HIS LAB AND CUT OFF POWER TO TRAP HIM THERE.

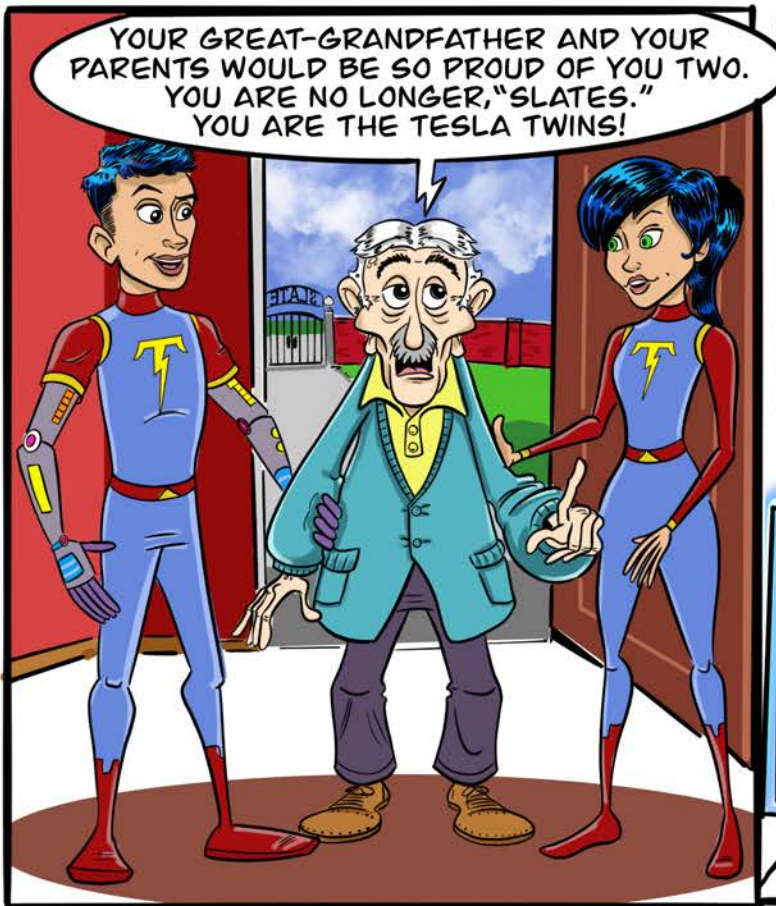


WILL HE SURVIVE WITHOUT HIS SUIT?



THANKS FOR SAVING MY FRIENDS.

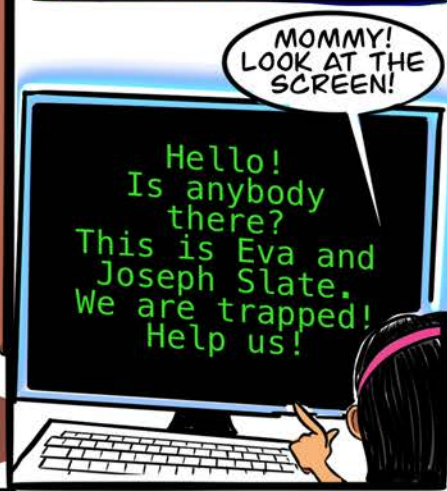
WE ALL DID.



YOUR GREAT-GRANDFATHER AND YOUR PARENTS WOULD BE SO PROUD OF YOU TWO. YOU ARE NO LONGER, "SLATES." YOU ARE THE TESLA TWINS!



SOMEONE HAS CUT OFF MY POWER.



MOMMY! LOOK AT THE SCREEN!

Hello!
Is anybody there?
This is Eva and Joseph Slate.
We are trapped!
Help us!

Nikola Tesla

Inventor



Nikola Tesla was a Serbian-American inventor, electrical engineer, mechanical engineer, and futurist who is best known for his contributions to the design of the modern alternating current electricity supply system.

Born: July 10, 1856; Smiljan, Croatia

Died: January 7, 1943; The New Yorker, A Wyndham Hotel; New York, N.Y.

Education: Graz University of Technology (1875–1878)

Awards: Order of the Yugoslav Crown;
Elliott Cresson Medal (1894); IEEE Edison Medal (1916);
John Scott Legacy Medal (1934)

The Death Ray

The death ray, or death beam, was a theoretical particle beam or electromagnetic weapon first theorized around the 1920s and 1930s. Around that time, such notable inventors Guglielmo Marconi, Nikola Tesla, Harry Grindell Matthews, Edwin R. Scott, Graichen, and others claimed to have invented it independently.

Nikola Tesla claimed to have invented a "death beam," which he called *teleforce* in the 1930s, and continued the claims up until his death. Tesla explained that "this invention of mine does not contemplate the use of any so-called "death rays." Rays are not applicable, because they cannot be produced in requisite quantities, and diminish rapidly in intensity, with distance. All the energy of New York City (approximately two million horsepower) transformed into rays and projected twenty miles, could not kill a human being, because, according to a well-known law of physics, it would disperse to such an extent as to be ineffectual. My apparatus projects particles, which may be relatively large, or of microscopic dimensions, enable us to convey to a small area at a great distance trillions of times more energy than is possible with rays of any kind. Many thousands of horsepower can thus be transmitted by a stream thinner than a hair, so that nothing can resist." [Tesla proposed that a nation could "destroy anything approaching within 200 miles ... [and] will provide a wall of power" to "make any country, large or small, impregnable against armies, airplanes, and other means for attack." He claimed to have worked on the project since about 1900, and said that it drew power from the ionosphere, which he called "an invisible ball of energy surrounding Earth." He said that he had done this with the help of a 50-foot tesla coil.

In 1957, the National Inventors Council was still issuing lists of needed military inventions that included a death ray.

While based in fiction, research into energy-based weapons inspired by past speculation has contributed to real-life weapons in use by modern militaries sometimes called a sort of, "death ray," such as the United States Navy and its Laser Weapon System (LaWS) deployed in mid-2014. Such armaments are technically known as directed-energy - weapons.

TESLA Quotes

The present is theirs; the future, for which I really worked, is mine.

The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries of its existence.

The scientists of today think deeply instead of clearly. One must be sane to think clearly, but one can think deeply and be quite insane.

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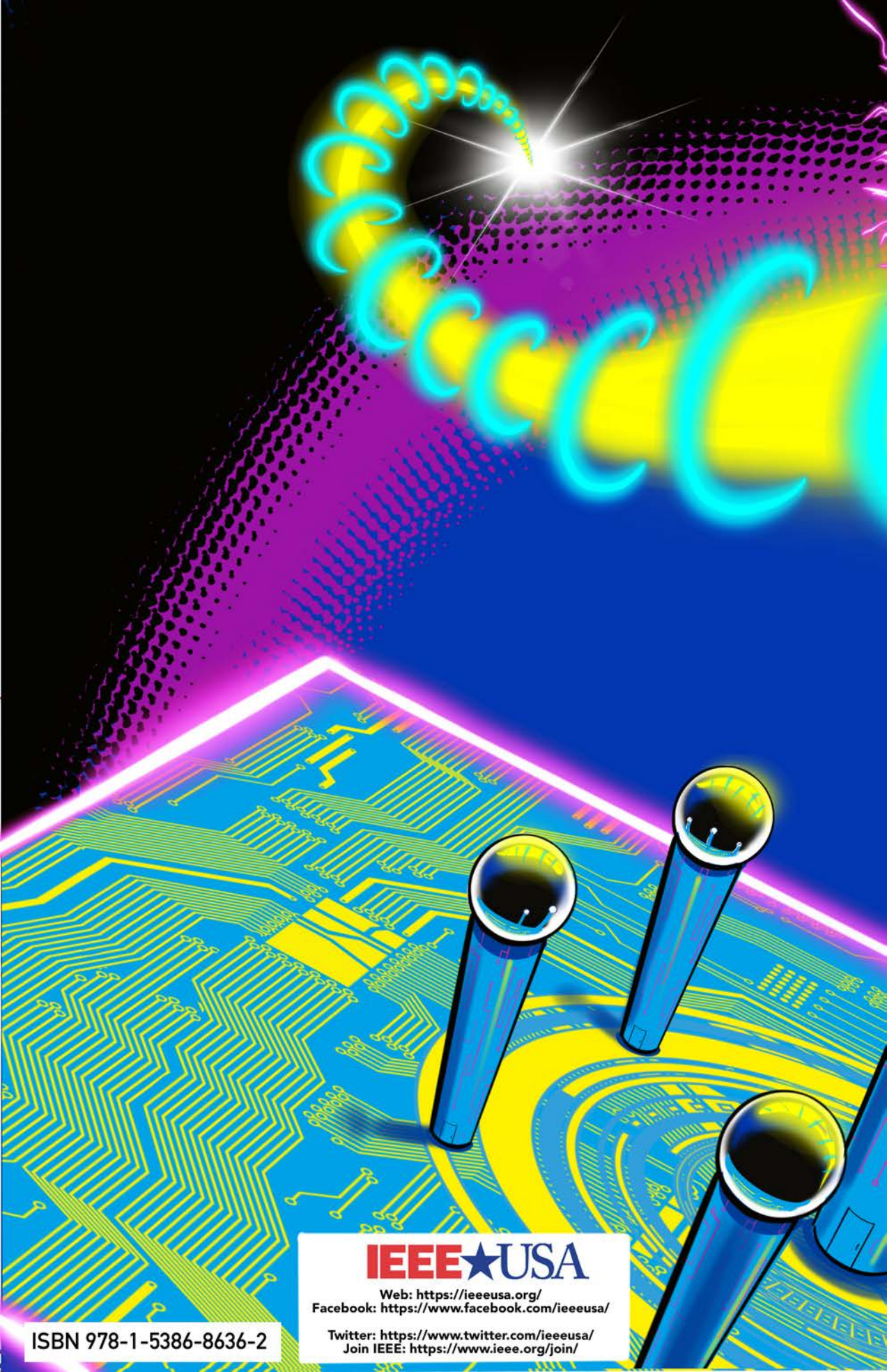
About the Author

Jeff Knurek, Jumble cartoonist, is an award winning toy and game inventor, consumer product developer, graphic artist, illustrator, cartoonist, and puzzle creator. Knurek's first game invention to make it to market, in 1989, was the outdoor game, *Spikeball*. His other game credits include Family Fun magazine's "Toy of the Year" award winners: "What's In Ned's Head?" and "Monster Under My Bed." Knurek also develops and licenses children's magic tricks and products for Las Vegas headliner, Mac King.

In 2008, Jeff Knurek became only the third artist to draw the popular Jumble puzzle cartoon, seen in more than 600 newspapers. He took over the art duties for Jumble, when the great Henri Arnold retired. Knurek's unique humor and style can be seen in the caricatures and fun pop culture references placed throughout his cartoons.

Jeff is also a singer-songwriter. His first album, *Risk Taking Is Free*, is an eclectic mix of songs inspired by his diverse love of many genres of music. He has begun work on his second album.

Knurek's hometown is Southgate, Michigan. He has lived throughout the Midwest, in Ohio, Illinois and Indiana. Knurek received a B.F.A. in Industrial Design, with an Art Education certification, from the University of Michigan. In 2007, he donated a kidney to a family member with Polycystic Kidney Disease, and both are doing great. Knurek currently resides in Fishers, Indiana, with his wife Kathy; and children, Sydney and Cameron.



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