

#1 CONSTANCE & NANO

ENGINEERING ADVENTURE!

Rain, Rain, Go Away!



CONSTANCE & NANO

ENGINEERING ADVENTURE!

Constance walks to her school bus every day, but when things get extra rainy, the streets flood...and traffic gets dangerous! But why does the rain wreak such havoc in her town? A new friend with some cool tech might be able to point her in the right direction.



Plus, learn more about **SWENext**, a way for students to become part of the **Society of Women Engineers**, the world's largest advocate and catalyst for change for women in engineering and technology!

Become part of **SWE** and **#BeThatEngineer**
at **swe.org/swenext**



sweNEXT

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MORNING.

MAKE SURE
TO PUT ON YOUR
COAT. IT'S REALLY
COMING DOWN
OUTSIDE.

~GROAN~
I AM, MOM.

YIKES. YOU'RE
COVERED IN
MUD.

MORE GARDEN
TROUBLE?

ARGGGH.
YES. I CAN'T
FIGURE OUT
WHAT'S GOING
WRONG.

EVERY
TIME IT'S
RAINED IN THE
LAST SIX WEEKS,
THE GARDEN
FLOODS. WHAT
A MESS.

WELL, I'D LOVE
TO HELP YOU WITH
THAT, BUT YOU
KNOW, SCHOOL
CALLS.

BE CAREFUL
IN THE RAIN.
ESPECIALLY AT
THE BAD
INTERSECTION!

I KNOWOW,
MOM!





SKREEEECH



ALLEY-OOP!



YOU... YOU JUST SAVED MY LIFE.



YOU OKAY?

...YEAH. THANK YOU.

NO PROBLEM. YOU HAVE TO BE CAREFUL HERE WHEN IT'S RAINING.

YEAH, I KNOW... MY FRIEND PETE GOT HIT BY A CAR HERE JUST LAST MONTH. BROKE HIS ARM.



WHOA. YOU'RE

NANO!

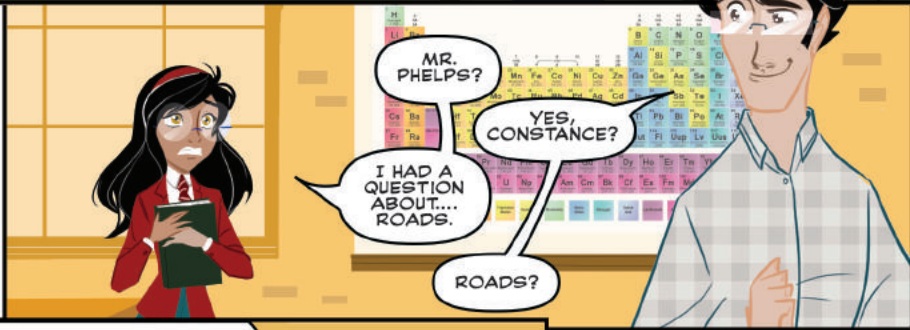


WHY DOES THE RAIN MAKE IT SO DANGEROUS HERE?

WELL, THERE'S ACTUALLY A PRETTY INTERESTING ANSWER TO THAT —

— UNFORTUNATELY, THOSE SIRENS MEAN I HAVE TO GO...





A WEEK LATER,
AT CITY HALL.

WHOA.
IT'S BIG!

DO YOU
KNOW WHO
WE'RE
SUPPOSED
TO SEE?

YEAH,
HER NAME IS
MARIANA
BAHRI.

HI, ARE YOU
CONSTANCE AND
LESLIE?

YES,
WE ARE.

HI, I'M ALEX NGUYEN. I'M
INTERNING FOR MS. BAHRI'S
DEPARTMENT. IF YOU'LL JUST
FOLLOW ME I'LL TAKE YOU
BACK TO SEE THEM.

IT'S GREAT THAT YOU COULD COME
DOWN, CONSTANCE. I WISH MORE YOUNG
PEOPLE LIKE YOU WERE INTERESTED IN
ENGINEERING—THERE ARE SO MANY WAYS
PEOPLE CAN USE ENGINEERING TO
MAKE A DIFFERENCE.

WE NEED ALL THE
YOUNG PEOPLE WHO
WANT TO MAKE A
DIFFERENCE THAT WE CAN
GET. FUTURE GENERATIONS
ARE NEEDED TO ENGINEER
CITIES AS CIVIL ENGINEERS,
AND THERE'S SO MUCH
POTENTIAL IN COMPUTER
ENGINEERING.

WELL, HERE WE
ARE! I HOPE YOU
BOTH FIND THE
ANSWERS YOU'RE
LOOKING FOR.

HEY...
ARE YOU—

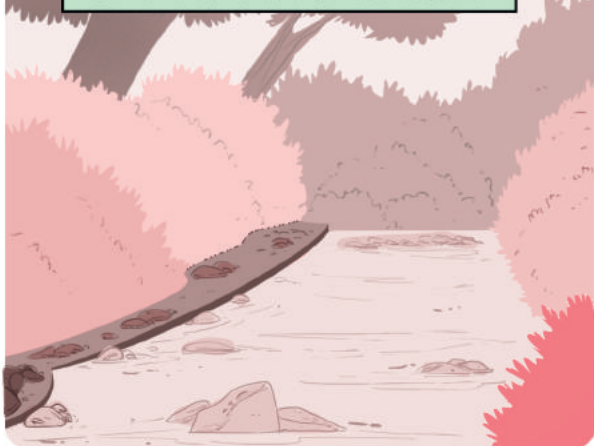
I THINK I
KNOW YOU.

SURE YOU
DO, CONSTANCE,
I'M ALEX.

gwinck



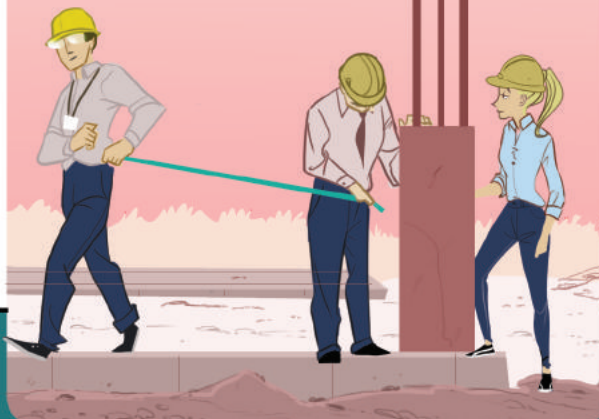
"THE FLOW IN THE RIVER OBVIOUSLY INCREASES IN THE SEASONS WITH HEAVIER RAINFALL. AND IN RECENT YEARS, THE RUN OFF HAS INCREASED SIGNIFICANTLY BECAUSE OF UPSTREAM DEVELOPMENT."



"AS A RESULT, THE CULVERTS ARE BOTH TOO FEW AND TOO SMALL TO HANDLE THE FLOW."



"THE ENGINEERING TEAM IS SURVEYING THE AREA NOW. THEY'RE TAKING FLOW MEASUREMENTS AND EXAMINING THE SITE CONDITIONS SO THAT A NEW SYSTEM CAN BE DESIGNED."



"THE ENGINEERS WILL DESIGN A NEW SYSTEM THAT'S CAPABLE OF HANDLING ALL THE REQUIREMENTS OF THE SITE..."



...AND THEN MS. BAHRI TOLD ME THOSE SYSTEMS INCLUDE TRAFFIC, RIVER AND WEATHER CONDITIONS, AND MORE.

WHEN THEY'RE DONE WITH DESIGN— AND THEN CONSTRUCTION— THE TRAFFIC AROUND HERE WHEN IT RAINS A LOT WILL BE BETTER AND WAY SAFER, AND NO MORE FLOODING!



WOW. WHO KNEW IT WAS SO COMPLICATED?

YEAH, BUT ISN'T IT COOL THAT IT ALL MAKES SENSE? I HATE HOW RANDOM IT USED TO FEEL. I LOVE KNOWING THERE'S AN EXPLANATION FOR IT ALL.



THE FOLLOWING WEEK.

GRRRRR.

GARDEN'S FLOODING AGAIN, HUH?

YES, BUT DON'T WORRY ABOUT IT. YOU BETTER GET GOING OR YOU'LL MISS THE BUS.

LEMME JUST CHECK SOMETHING.

CONSTANCE, DON'T GO IN MR. WU'S YARD, PLEASE.

MOM, COME OVER HERE. I KNOW WHY YOUR GARDEN IS FLOODING LATELY.

LOOK, THE OTHER DOWNSPOUTS MUST BE BLOCKED. SO THE WATER IS BACKING UP IN THE GUTTER AND ALL REROUTING TO THIS ONE, WHICH IS THEN FLOODING THE GARDEN.

WELL I'LL BE. LOOK AT THAT.

WE JUST HAVE TO UNBLOCK THE DOWNSPOUT AND IT SHOULD GET BETTER.

THAT'S GREAT, CONSTANCE. THANK YOU SO MUCH. I'LL GO TALK TO HIM THIS AFTERNOON ABOUT IT.

WE COULD ALSO TRY BUILDING A RAIN GARDEN BACK THERE... I WAS READING ABOUT IT ONLINE. IT'S A LITTLE MORE INVOLVED AND WE'D HAVE TO CHECK WITH THE CITY ZONING, BUT IT WOULD DEFINITELY SOLVE THE PROBLEM.

HA! OKAY. YOU TELL ME ALL ABOUT IT TODAY WHEN YOU COME HOME, ALL RIGHT?



THE ENGINEERING ADVENTURE CONTINUES!

WITH REAL-LIFE HEROES FROM
THE **UNITED TECHNOLOGIES**
WONDER SQUAD!



AMAZING **WOMEN ENGINEERS** WHO ARE MAKING THE WORLD A BETTER PLACE!

Our world is awesome and exciting! And girls who are filled with curiosity, just like Constance, have the power to make life better for everyone. United Technologies is proud to support curious minds like Melinda, Courtney and Sarah who work every day to solve engineering challenges with creativity and passion. We're also proud to help the Society of Women Engineers encourage our future engineers like you to become real-life heroes, too!

LEARN MORE ABOUT BECOMING A REAL-LIFE HERO AT
WWW.UTC.COM/CAREERS



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HAVE YOUR OWN ENGINEERING ADVENTURES! JUST LIKE CONSTANCE AND NANO ...



SCAN ME

If you're a girl 13 or older, you can be a SWENext! It's a fun way to learn how to **#BETHATENGINEER** and join SWE for free. You can even start your own SWENext Club and make your own engineering adventures!

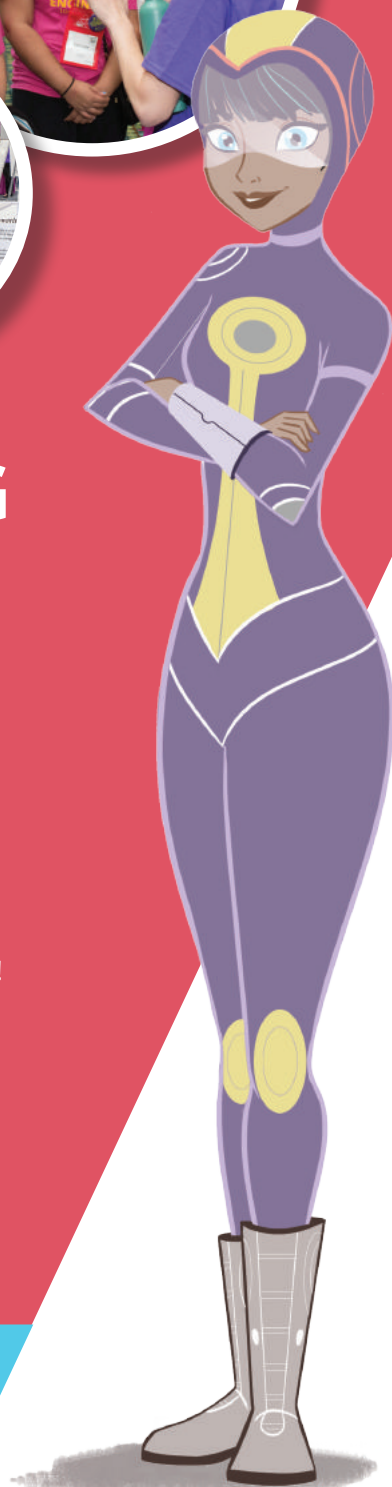
Are you 12 or under? You can join, too ... you just need a parent to join with you.



SCAN ME

Parents and other adults—
you're also welcome to join!

JOIN CONSTANCE AND NANO AND DISCOVER THE
EXCITING, REWARDING WORLD OF ENGINEERING.
SIGN UP FOR SWENEXT TODAY AT SWE.ORG/SWENEXT



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SWENEXT IS A FUN WAY TO BECOME PART OF THE **SOCIETY OF WOMEN ENGINEERS**.

- Attend engineering events designed for girls
- Discover SWE scholarships to help pursue your dreams
- Meet women engineers ready to mentor and inspire you
- Do cool engineering projects
- Participate in exciting contests
- Get SWE goodies
- ... and much more.



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Watch
me
CHANGE
the
WORLD



Find your 
inspiration

Are you a STEM student who loves to be involved in the community? Or maybe you love to learn and need more hands-on experience. A SWENext Influencer is a STEM-involved student leader who shares their knowledge and experience with SWENext programming across SWE/SWENext media platforms.

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