

“Jamming on the Job” Episode 4: Wind Turbine Technician

[PBS KIDS music]

PBS KIDS Announcer: From your friends at PBS KIDS.

[A tour bus zooming down the open road.]

Andrés: Vamos amigos, it's time to go.

Christina: Get ready BoomBox, we have a show.

[Music: Jamming on the Job theme song]

Christina, Andrés, and BoomBox: (singing)

Jamming on the Job

Ja, Jamming

Jamming on the Job

Wooh Ooh

I'm Christina,

Y yo soy Andrés

And we play music

All over the states

We jam and learn

With people who

Work in jobs

They love to do!

If we get stuck

Or something goes wrong

An expert helps us

And we write a song!

[BoomBox beats]
Hey...Go BoomBox...¡Vamos!

Jamming on the Job
Ja, Jamming
Jamming on the Job
Wooh Ooh

Christina: Hola, Jam Fam! And welcome to Jamming on the Job!

Andrés: Hello, everyone!

Christina: Today, we've just arrived in the beautiful city of Rock Port, Missouri!

BoomBox: ROCK POR, MISSOURI, YEAH

Christina: We'll be playing our concert at a school right here in town.

Andrés: Wow! Take a look out of the window, Christina! ¡Mira! ¿Ves esos molinos gigantesco?

Christina: I do see those giant pinwheels! They're so... interesting looking! Jam Fam, these pinwheels look like standing fans, but instead they're really tall, taller than some buildings that you may have seen in a city. They're all white with really long blades that are spinning kind of slowly. I wonder what they do?

[Andrés practicing on flute]

Andrés: (groans)

Christina: ¿Qué pasa, Andrés?

Andrés: I'm trying to learn a new melody on the flute for our show here in

Rock Port, but I just can't seem to get the notes right.

[Andrés practicing on flute]

Andrés: (groans again) I don't think I'll ever be able to play this melody!

Christina: Don't give up, Andrés! Sé que estás frustrado. I'm sure you'll get the notes right soon if you keep trying and stick with it!

Andrés: Stick with it?

BoomBox: STICK WITH IT, JUST STICK WITH IT

[Andrés practicing on flute]

Andrés: (groans) Agh! I still can't get this melody! ¡Es imposible!
(groans)

Christina: (sighs) I'm sorry that it's still giving you so much trouble Andrés. But, hmm... since we're at the venue a bit early, how about we take a break and relax over there by the garden?

Andrés: Ah, I could really use a break. I like that idea, Christina. Let's go BoomBox...¡Vamos!

[gentle music]

Andrés: (takes a deep breath in and out) Christina, feeling the sun on my face is just what I needed.

Christina: I'm so glad, Andrés! And look at these flowers, so many colors! Amarillo, azul, morado... And they smell like a beautiful perfume!

Andrés: (inhales) Whoa! Look in the distance, Christina! Jam Fam: remember the giant pinwheels? There they are, all standing in a field. Oh!

Hang on, one of the pinwheels stopped spinning! [music slows] Es muy extraño.

Christina: Maybe it'll start again?

[Wind, record scratching, cows mooing]

Andrés: It doesn't look like the pinwheel is moving anymore. Oye Christina, I wonder if we can head over there to learn about why the pinwheel stopped moving! ¿Quieres ir a ver?

Christina: Of course I do, ¡claro que sí! Let's go check it out, Andrés. And come along with us Jam Fam!

BoomBox: WHAT'S HAPPENING OVER THERE? LET'S GO SEE. I WANT TO GO SEE. WONDER WHAT IT COULD BE. TOGETHER, JAM FAM, CHRISTINA, ANDRÉS AND ME, BOOMBOX...

[Tour bus arriving, doors closing, and footsteps.]

Christina: Alright, Jam Fam. We are now standing under those giant pinwheels!

Andrés: Holy moly! ¡Los molinos son muy grandes! These pinwheels look even bigger now that we're up close. Whoa!

Christina: They are *ginormous*! Wow! Son muy altos. They're so tall they look like they're touching the sky!

[Footstep approaching]

Regina: Hello new faces! How can I help you?

Andrés: ¡Hola! My name is Andrés, y ellos son mis amigos Christina y...

BoomBox: BOOMBOX BOOMBOX BOOMBOX

Andrés: BoomBox, our magical music machine! And we're also here with our Jam Fam, who are the listeners of our podcast.

Regina: (laughs) Hi there! You know what? I love listening to podcasts too! My name's Regina. I actually work on these "pinwheels," but around here, we call them "wind turbines."

Christina and Andrés: Ohhhh! Wind turbines!

BoomBox: WIND TURBINES

Andrés: Nice to meet you, Regina! Oh yes, wind turbines, of course! Yeah, yeah... but wait a minute. What exactly is a wind turbine? And what are they for?

Regina: (laughing) Great questions, Andrés. A wind turbine is what you're seeing: it sort of looks like a giant fan, but instead of blowing air, these wind turbines capture, or pull in, energy from the wind to help create electricity.

Andres: ohhh

Regina: These wind turbines power all of the homes and businesses in our town, which makes our town of Rock Port, Missouri the first ever place in the United States to be 100% wind powered.

Christina: wow!

Regina: And, you can call me a Wind Turbine Service Technician. That's my official title!

BoomBox: WIND TURBINE SERVICE TECHNICIAN

Andrés: Regina, what does a wind turbine service technician do?

Regina: Basically, it's my job to make sure these turbines keep spinning and collecting energy for electricity, and when they stop, like this one did, I've got to figure out why they've stopped spinning and fix it!

Christina: Ahhh

Regina: Actually...I have an idea! Would you three like to climb up and into the turbine with me?

Andrés: We can do that?! Christina... are you thinking what I'm thinking?

Christina: Uhhh, I think I'm thinking what you're thinking, Andrés. (laughs)
Regina, we would love to come up with you!

Andrés: Regina would it be okay if we write a song about your job as a wind turbine service technician?

Regina: A song? About me?!

Andrés: uh-huh!

Regina: Oh, I'd be honored, yes of course!

Christina and Andrés: WE'VE GOT A JOB TO JAM ON!

BoomBox: WE'VE GOT A JOB TO JAM ON! WE'VE GOT A JOB, WE'VE GOT A JOB, JAM...

Regina: Before we make our way up into the turbine, first thing's first. We need to wear safety gear like these harnesses and helmets. I always have extras for visitors. Here you go!

Andrés: Thank you!

Christina: Oh, ¡muchas gracias! I've never worn a harness before.

Andrés: Oooh, hah!

Christina: Got your helmet?

Andrés: Yeah!

Christina: ¡Ponte el casco!

BoomBox: SAFETY GEAR

Andrés: Regina, how did you know you wanted to be a wind turbine service technician?

Regina: When I was a kid growing up here in Rock Port, I watched these turbines being built. I was super interested in what they did and what made them work, so I decided to find out more.

Andrés: Uh-huh...

Regina: I've always loved working with my hands to build and fix things, so, hey, this is a great fit!

Christina: Wow, what a great way to follow what you love!

Regina: It is! I've always been obsessed with working with my hands, like building blocks or using tools, and I've loved being outside and exploring ever since I was a kid.

Christina: hmmm

Regina: But let's quit talkin' and get up there, shall we?

Christina: Oh yeah!

Andrés: Let's do this!

BoomBox: LET'S GET GET GET GET UP THERE!

Regina: Ok! Let's each clip the ends of our harnesses right here into these straps that are attached to the turbine.

Christina: Ok!

Regina: These will keep us safe in case we accidentally slip. Clip in!

BoomBox: CLIP IN!

Regina: Fantastic! Up we go!

Christina: Ok!

Regina: First, Follow me slowly up these steps.

Christina: ok.

Regina: Be careful.

Andrés: claro

Regina: Now let's climb!

Andrés: Ok...

Christina & Andrés: LET'S CLIMB!

Andrés: C'mon, Jam Fam! Let's get to the top!

[Footsteps climbing]

Andrés: Regina, are we climbing stairs all the way to the top?

Regina: Oh no, we've got an elevator.

Andrés: Oh, good.

Regina: The elevator is riiight... here! Step right in!
I'll just push this button right here and up we go, right to the top!

Andrés: Wow!

[elevator rising]

Regina: And here we are!

Christina: Wow!

Regina: Inside of the turbine, which we call the *nacelle*, is the cover that surrounds the machine parts of the wind turbine.

Andrés: Ohhhhh.

Regina: I'm going to open this door right above your head.

Andrés: Claro

Regina: Would you both like to take a peek outside to see how high up we are?

Christina: I'd love to!

Andrés: ¡Claro que sí!

[door opening]

Regina: Ok watch your step and you can poke your head through right there!

[birds chirping, wind, cows]

Andrés: (gasps) ¡Mira esto... espectacular!

Christina: It's so windy! Jam Fam this view is breathtaking. We see rolling hills, and dots of cows, for miles and miles and miles!

Andrés: Moooooochas vacas, muchas muchas (laughing)

Regina: (laughing) The view is definitely one of the best perks of this job. Now let's head back to the nacelle to investigate why the turbine isn't turning!

[footsteps climbing down]

Andrés: Whoa... It's so cool in here!

Christina: Jam Fam, the space inside of this turbine looks to be about the size of a school bus. We're seeing lots of blinking machine lights and wires, and hearing some low hums.

[low hums, drums, switches]

Christina: Hey, how high up are we?

Regina: We're about 300 feet off the ground. That's almost as tall as the Statue of Liberty!

Andrés: No way!

Regina: But no big deal, right (laughing)

Andrés: (gulp). Uhhh... ¡Ay! ¡Eso es muy alto! (nervously laughing)

Christina: We're totally safe Andrés! Remember, we have these harnesses on that'll catch us if we slip and fall.

Andrés: Oh yeah, tienes razón. Phew! Regina, now that we're inside of the turbine, what do you need to do first?

Regina: I check my clipboard, which has a list of things that I can do to try to figure out why the turbine stopped spinning. If I try one thing on the list and that doesn't work, I try something else.

Christina: hmmm

Regina: Persistence is key! Basically, I stick with it until something works!

Andrés: Wait, if something gives you trouble, like a tricky melody on the flute for example, you stick with it?

Regina: I stick with it!

BoomBox: STICK WITH IT, JUST STICK WITH IT.

Andrés: Christina was just telling me to "stick with it" this morning. I've been working on a really hard melody and I can't seem to get it.

Regina: I recommend that you stick with it, Andrés, and keep practicing. I bet you'll eventually get it.

Andrés: Ok.

Regina: Just like I'll eventually figure out what the problem is with this turbine. The first thing on my list is to see if the wires are tightened. I'll just open this gear box here...

[socket wrench turning]

Andrés: Oooh I love the sound of that wrench! Hey BoomBox! Can you record that? I think we could use that in our song.

BoomBox: RECORDING... WRENCH... COWS... WIND... SAMPLES RECORDED!

[BoomBox records the sounds of the wrench, cows, and wind.]

Andrés: ¡Excelente!

[socket wrench turning]

Regina: Ok! The wires are tight. So that's not the problem.

Christina: Hmmmmmm.

Regina: Now I'll try the next item on my list, which is checking if any of the bolts have come loose. Aaaand...

[turning bolts]

Regina: Well the bolts are tight too! Hmm... Ok, next I'll check the hydraulic gauge.

Andrés: Hmmm.

Regina: And... ah-ha ha ha!

BoomBox: HA HA HA HA!

Andrés: Did you find the problem?

Regina: I think I did! The turbine needs hydraulic oil to help it go.

Christina: Ohhhh.

Regina: It's kind of like a car needing gas to go! And I've just discovered that there's no oil in the chamber. But that's an easy fix! Would you hand me that jug of oil right behind you, Christina?

Christina: Uh, sure thing! Here you go!

Regina: Thanks! Now I'll just fill the chamber back up with oil, and... [oil pouring into the chamber] that should do the trick.

[blades starting to slowly spin, then beeping]

Regina: We're back in action! Do you hear that noise?

Andrés: Yeah!

Regina: That means the blades are spinning again.

Andrés: I hear it! Can you hear the blades, Jam Fam?

BoomBox: LET ME SEE YOU SPIN. LET ME SEE YOU, LET ME SEE YOU, LET ME SEE YOU SPIN LIKE A FAN!

Christina: How cool!

Regina: Let's head back down and we can see them spinning from a safe distance on the ground! Ready?

Andrés: Ok, let's go!

Christina: Alright, let's do it!

[footsteps echoing inside the turbine, metal door opening]

Andrés: Oooh! Back on solid ground!

Christina: Regina, that was so cool! You have such an interesting job.

Andrés: Yes, you do!

Regina: Thanks! It's always really fun, and challenging, and it makes me feel really good to know that I'm a part of helping Rock Port's alternative energy mission!

Christina: Huh! So Regina, how did you learn how to become a Wind Turbine Service Technician? Did they teach you in school?

Regina: The best part about this job is that you learn best by actually *doing* the job.

Andrés: Oh.

Regina: When I was graduating high school, I was looking for a job to help support my family, and I found that this opportunity was the perfect fit for that. They gave me on-the-job training!

Andrés: That's so cool. Hey, this might be a tricky question but, how exactly does wind energy work?

Regina: Well, when the wind makes the blades of the turbines spin, it creates electricity that travels through power lines way below ground.

Andrés: Uh-huh.

Regina: And then, the electricity travels up to power lines that you see on the streets and in neighborhoods, then the electricity travels from the power lines right into your home ...

Christina: Ohhhhh!

Regina: ... so that you can turn the lights on, watch TV or movies, or read a book at night!

Andrés: It sounds like you love what you do Regina! Thank you so much for showing us everything that you do as a Wind Turbine Service Technician.

Regina: My pleasure! I love it when I can talk about my job, as well as different kinds of ways to create electricity. Especially energy that is renewable, which means that it doesn't run out.

BoomBox: RENEW-AH-AH-RENEWABLE. RENEW-AH-AH-RENEWABLE.

Regina: (laughs) Exactly, BoomBox. This renewable source of energy means that our wind farm here in Rock Port is helping the Earth.

Christina: (laughing) Well we're big fans of the Earth around here! Hey Regina, Andrés and I would love to have you as a guest at our show tonight, and you can hear our new song about your job. Would you like to come?

Regina: Absolutely! (laughing) I love concerts and I love you guys, my new friends.

Christina and Andrés: Awwwww.

Andrés: You're so kind!

Christina: We loved meeting you, too!

Andrés: Ok, we'll see you soon. Bye Regina!

Regina: Byeeee! (laughing)

Andrés: Ok Jam Fam, let's head back to the venue. Time for the show!
¡Vamos!

BoomBox: VAMOS

[Music playing. Andrés practicing flute melody.]

Andrés: (groans) Uh, Christina. Un problema. I still can't play this melody on the flute!

Christina: Hang on, Andrés! Remember what Regina said about being persistent? We gotta stick with it!

BoomBox: STICK WITH IT! JUST STICK WITH IT!

Christina: Even if you keep making mistakes, you keep going and trying again, because sometimes that's the only way to learn.

[Andrés practicing flute melody]

Andrés: (gasp) Yay!! I think I got it! I just needed to keep practicing!

Christina: I think you got it, too! ¡Dale Andrés! You've got it.

[Andrés practicing flute melody]

Andrés: I did it!

[concert crowd cheering]

Andrés: ¡Gracias amigos!

Christina: It's great to be here in Rock Port, Missouri. Muchas gracias to everyone.

Andrés: And before we finish, we wanted to play one last, brand new song called “Stick With It,” inspired by a Wind Turbine Service Technician from right here in Rock Port: Regina!

[concert crowd cheering]

Christina: Oh yeah! Let’s bring this one home! Hit it BoomBox!

Christina, Andrés, and BoomBox: (singing)

STICK WITH IT
JUST STICK WITH IT
STICK WITH IT
JUST STICK WITH IT

I’M SPINNING
WITH THIS WIND TURBINE
MY ENERGY IS LOW
A LOT IS ON MY MIND

I’M A WIND TURBINE SERVICE TECHNICIAN... AND THERE’S
DEFINITELY A PROBLEM HERE.

I’M ON A MISSION (WHAT’S THAT?)
I’M THE TECHNICIAN (THAT’S COOL!)
I MAKE POWER
RENEWABLE LIKE THE WIND IS

BUT I’M RUNNING OUT OF LUCK TODAY
BECAUSE MY TOOLS GOT STUCK TODAY
MY WIRES GOT CROSSED
AND I’M FEELING LOST
AND I DON’T FEEL MOTIVATED

STICK WITH IT

JUST STICK WITH IT (YOU GOT THIS)
STICK WITH IT
JUST STICK WITH IT

KEEP GOING EVEN IF THE CHALLENGE IS LARGE
LIKE WIND WHEN IT'S BLOWING
YOU ARE KEEPING ME CHARGED

CAN I DO THIS?
I'M THINKING YES I CAN
IF I AM PERSISTENT
I WILL WORK TO UNDERSTAND

ALL I NEED IS A PLAN
I'LL RETRACE MY STEPS
LET ME LOOK AT THE MANUAL...

HMMM...
OKAY SO IF I TAKE MY WRENCH HERE
AND PUT THE SCREWDRIVER THERE AND
FLIP THIS SWITCH (CLICK)
HA! OH MY GOODNESS!
I DID IT!
I FIXED IT BECAUSE I CHOSE TO

STICK WITH IT
JUST STICK WITH IT
STICK WITH IT
JUST STICK WITH IT

STICK WITH IT
JUST STICK WITH IT
STICK WITH IT
JUST STICK WITH IT

KEEP GOING EVEN IF THE CHALLENGE IS LARGE
LIKE WIND WHEN IT'S BLOWING
YOU ARE KEEPING ME CHARGED

[concert crowd cheering]

Andrés: Amigos, please welcome to the stage our favorite Wind Turbine Service Technician: Regina!

[concert crowd cheering]

Regina: Hello Rock Port! Thank you so much Andrés and Christina for having me! Whenever you get stuck, just remember... to stick with it!

BoomBox: STICK WITH IT, JUST STICK WITH IT!

Christina: Jam Fam, when you were learning something new, did *you* ever have to stick with it? (pause) Okay Andrés, do you have a joke to wrap up today's episode?

Andrés: You betcha. I asked a wind turbine what kind of music it liked. Do you know what it said?

Christina: Umm. I'm not sure.

Andrés: I'm a big metal *fan!*

[heavy metal guitar]

Christina: (laughing) Well, Jam Fam, I think that's enough for today. I'm winded.

Andrés: (laugh) Agreed. ¡Adiós Jam Fam!

Christina: See you next time on...

Christina and Andrés: Jamming on the Job!

Christina, Andrés, and BoomBox: (singing)

Jamming on the Job

Ja, Jamming

Jamming on the Job

Wooh Ooh

Andrés: Wrap us up with those credits, BoomBox!

BoomBox / Pierce Freelon: (singing and rapping)

Jamming on the Job is hosted by

Andrés Salguero, Christina Sanabria

and BoomBox, Pierce Freelon, oh yeah that's me!

We made these songs

And Jameelah McMillian voiced Regina

Written by Jackie Payton

Sound edits by Aaron Keane and

Shout-outs to Terence Bernardo who did all the sound design

Executive Produced by David Huppert with producer Isaac Klein and Daniel Rinaldi

Thank you for listening friends

Visit [pbs kids dot org](http://pbskids.org) to jam with us again

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[Music fades.]

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