Ukulele Music

Keith: Welcome to the LeeCoSchools Edcast #6 with the Loachapoka High School Robotics Team. Man this was a great group of kids to talk to wasn't it?

Kyle: it really was yeah you know with with high school kids you never know exactly what you're gonna get but this was a group of dedicated people that are in the hunt for the win

Keith: yeah very focused

Kyle: very focused very smart very intelligent

Keith: yeah and gives me great hope for you know people people always want to complain about kids these days right kids these days with these kids I feel pretty good about it

Kyle: they are on track

Keith: their focus and determination they're gonna be landing robots on Saturn or something someday

Kyle: working for ol Elon Musk

Keith: yeah him driving his car through the through the solar system before it's over I'm sure but after you listen to this if you find yourself with any questions comments complaints criticisms compliments colloquialisms conundrums or concerns you can find us on the web at www.lee.k12.al.us/edcast on twitter @LeeCoSchools on facebook at facebook.com/leecoschools or by e-mail at edcast@lee.k12.al.us and i've been failing to mention but we have our own icon on the Lee County Schools mobile app

Kyle: oh really

Keith: yeah they you can find our app on your iTunes Store or in Google Play and you can sign up for alerts from however many schools you want to if you have a student in a particular school and you want to keep up with what's going on there you can sign up for just that particular school or I have it I have it for all the schools just because I like to keep up with what's going around the district but we have our own icon on there so yeah

Kyle: and so it'll send out emergency alerts too like bad weather days or if they cancel after school activities or anything

Keith: yeah parent link so if we send out a thing we need to close the school for a tornado or something well that'll you'll get a notification on your app as well as the other notifications

Kyle: very cool

Keith: I guess all that's left Kyle is for you to do your thing

Kyle: Heeeeere we go

Funky Transition Music

Keith: alright um so thank you all for being here and so we have the Knuckleheads and the Femgineers is that right

Kyle: killer names by the way

Keith: yeah wonderful name so let's just go around the room and tell us your first name:

Robotics Team: I'm Cory, I'm Alex, I'm Ivan, I'm Joe, I'm Brenice, I'm Angel, I'm Tate, I'm Xander, I'm Dominic, Marcus, Madereo, Jayana, Derrick

Keith: we're very glad to have all of you here and I guess the first thing is what got y'all interested in robotics in the first place did you watch robot wars and want to.... go ahead

Robotics Team: I got to learn more about programming and it fueled my desire to go to college for computer science

Keith: that's great

Robotics Team: I mainly got interested because of him and he started before me he was my brother so when I started going to his practices i started seeing the robots and got interested and i felt like I wanted to do it to try and see how fun it would be with me and two of my other friends who went to worlds with me my first year

Keith: nice

Robotics Team: I joined when I was in the third grade I already built robots before and it was already an interest of mine

Kyle: so what grade are you in now now

Robotics Team: ninth

Kyle: Wow okay been a long time

Keith: that's great

Robotics Team: well this is my first year at this school well coming back and I always had interest in building things but I never really took it far and I do like talking a lot so I was actually registering and I was coming to see my schedule mr. Thompson stopped me and that's kind of how I got interested he made me feel like well he didn't make me but he widened...

Keith: encouraged you to join so you guys are really good I mean you've won some competitions I keep up with when mr. Weeden tweets out something about you guys I try to make sure that I retweet it so hopefully it goes to a wider audience you know it seems like you guys have gotten to do some really cool things just went to Auburn for something...

Robotics Team: EDay

Kyle: So what is EDay?

Robotics Team: it's engineering day where people who are interested in engineering of any kind go to see which type of engineering they're interested in or to go into a field that they may be interested in to see how well they will be able to fit into it

Robotics Team: they have a bunch of exhibits that showcase a lot of the things they have at Auburn that you can work with so if you're interested in or even if you're not, they can show you and maybe pique your interest so that's some of the stuff they have there

Kyle: that's really cool

Keith: yeah and so what's the coolest thing that you guys have been able to do as part of the of the robotics team

Robotics Team: the coolest thing was going to worlds or to qualify for worlds because the time we went, I wasn't able to go

Kyle: so talk to me about this tournament structure so worlds you have to qualify for it right and so you guys just recently won an event right

Keith: the River region tournament Montgomery is that right

Kyle: so how does that work you go to a tournament and what is that like

Robotics Team: you've got the qualifiers for a state then you got state which qualify you worlds and if you qualify for state you could go to national you did get the highest skill points highest autonomous points the design award so yeah there's a design award the excellence award and the tournament champion and the excellence award is the highest award you get in VEX Robotics

Kyle: okay

Keith: and so the Femgineers y'all got the excellence award and then y'all knuckleheads got the design award right

Robotics Team: yes sir

Kyle: okay and so we go to an event like this is the problem presented to ahead of time or do you have to wait till you get there

Keith: yeah how does the tournament work is it like robot wars you build a thing and y'all go fight to the death how does that work

Robotics Team: we are all set up on team and there's four teams in a match and you're gonna get paired up with another team so the best thing to do is look at the match schedule and see what teams you're going up against on what team you're competing with so that way you can work out a strategy and you guys can talk and watch matches to see what one team does and there's a lot of strategy

Kyle: can you give me an example of what the challenge looks like

Robotics Team: what most robotics teams do they either stack cones on top of something and whoever has the highest stack gets the most points and there's also mobile go is essentially a bigger cone and you move it around and you bring it to your side to get the most points

Kyle: so there's a universal set of objectives on the field and then whichever team can complete the most points worth of objectives is what wins like robot football's really not really what I'm going for but that's kind of the deal is that both teams go into the same arena right and then they they complete the task in there whoever comes out ahead wins

Robotics Team: yes, but there also the rules. you can't sabotage or destroy any type of robot from another team or that's an automatic disqualification

Kyle: your game plan cannot be to flip their robot and just do whatever you want

Robotics Team: nothing that can possibly mess up their robot

Keith: you can't bring an EMP wave generator

Robotics Team: you might mess up your own bot with that

Keith: but that's just good sportsmanship though that's not not blowing up their stuff

Kyle: so we also have I don't think we got introduced to the adults in the room we did not can you guys tell us who you are

Robotics Team: I am I am Daisy Benford I am a seventh grade and eighth grade science teacher here and I'm also their robot coach along with mr. thompson

Robotics Team: I'm Melvin Thompson this is my fifth year doing VEX robotics

Kyle: that's awesome so what careers become available once you get people interested in robotics

Robotics Team: the sky's the limit literally you have a number of types of engineering fields some of those include materials engineers aerospace engineering chemical engineering mechanical engineering those are the basis of students and affects nearly every career but being that science technology engineering and math there's so many different facets

Kyle: because when these graduate high school they're gonna have real-world experience with programming like you said and build design and things like that materials engineering and so not only once they go through college and get some of that but they're it's gonna be they're gonna have hours in it's just something that a college graduate sorely wants

Robotics Team: working with the robotics club in general looks great on your high school documentation working with the team that has already been to world's three of five times is a tremendous plus

Kyle: it's a big deal

Robotics Team: this year we have four graduating seniors they're all graduating in contact with college professors as well as their peers all over the globe

Keith: that's really fantastic how many of you now that you've been in this club how many of you are interested in carrying this on and doing something something related to this as a career at some point

Robotics Team: I'm more of a computer person so I'm trying to go into an IT field so my major is gonna be computer information systems and basically I can...you can go a long way with that. you can work for factories or business organization anything like that Keith: yeah

Robotics Team: well like I said I was going to major computer science so like this is really helping me learn my programming and all other types like cuz when I go to college imma have to learn C++ but we're gonna start off with Python and with that it really helps

Kyle: so we can have nerd talk for a second

Robotics Team: okay

Kyle: what are y'all coding now

Robotics Team: robot C

Kyle: robot C any other languages like Java or anything

Robotics Team: No Java

Kyle: well and I can tell you understanding the thought process behind coding is way more important than learning the language you can learn any of the other languages quickly when you go to college you're gonna teach you pseudocode which is the thought process of how to do it and you look like you already know that and then once you get the syntax down with other stuff it'll be good

Keith: so what field are you thinking about going into

Robotics Team: I'm going to try and get into computer software because even though I'm more hands-on I don't see anything into mechanical engineering that would interest me and I love to write stories I love to draw as well as my brother and I was interested in computer software because they have a game design and development field and I would like to create unorthodox and unpredictable stories that would drive everyone insane

Keith: microtransactions is the way to get that that's how candy crush gets everybody the microtransaction

Kyle: seriously though the gaming market could use way more of that than it has now yeah anything now if it's not produced by EA or something like that you can get what is it greenlit on steam

Keith: some better storytelling is definitely something that is needed what so what do you think about doing

Robotics Team: well I do have some time to think about this but I did want to go into mechanical engineering but I also like speaking which make me think about maybe speaking about this robotic stuff and get our name out because as a female engineer our name is like rarely thought of you think more of a male so why not get the female name out just as equal to the male name out

Keith: absolutely we do need more women in the STEM field for sure let's be honest y'all are smarter than us anyway. did you have your hand raised, too?

Robotics Team: no I didn't. I'm like one of the exceptions to the rule. I'm more of an artist so I work on artwork and want to do some animation when I get to college so alot of the things I do,like the AP classes I have robotics, I do band I don't really plan on doing most any of that when I get to college I know I'm gonna have to do some math work and stuff like that like prerequisites but I just wanna do something with artwork or something art-related

Kyle: and and that's I don't think anyone expects everyone here to be like we're gonna do STEM when we get out of school but I'll tell you what man if we had robotics we were coming through like what a cool thing to have already done and I think you will find that some of the things you've learned here will be good no matter what you do

Keith: right okay so let's talk more nerd stuff for a second here what what brands of stuff do we use what type of robots what type of anything

Robotics Team: it's all VEX. you can't use anything other than VEX materials

Kyle: to compete you may only use vex okay all right there any other cool toys that y'all get to play with

Robotics Team: we do have an aquatics conversion you build robots that do water tasks

Keith: that's kind of cool

Kyle: do you get to compete with that stuff or is it just like

Robotics Team: there are different types of robotic competition that we have competed in but VEX is the main one it's the most professional and the biggest so that's why we usually go for that one

Keith: make sense

Kyle: when you guys your each individual teams do you build your robots together or is it just the boys team does one the girls team does one

Robotics Team: basically like that you

Kyle: separate okay so how do you inside your groups work through differences of opinions where someone says okay I think that this is the best way to go about this and then some well this is the other way to go about this how do y'all problem-solve as a team Robotics Team: well I think we all kind of just like hear each other's ideas out we can figure out a way how both ideas could basically could come together and help build our robot so we could win like our competition so we could be great instead of arguing we take the time not to hear eachother out

Keith: that's out of out of everything else that you've learned that might be the most important skill that you're gonna learn in this thing is being able to listen to other people's ideas and work through them um so you said that out of the five years y'all have been to world what three times or something like that so what is the magic of the Loachapoka High School Robotics team that just gets you all churning out wins yeah

Robotics Team: teamwork.

Robotics Team: you also have to know the rules and the way VEX is supposed to go because if you don't then that's gonna mess you up in the longrun

Kyle: it sounds like all of y'all are really in the hunt for this like you want to go to world you want to win this it sounds like that is really one of the biggest factors is that we can get through all the other stuff as long as every one of us are sort of laser-guided on on on trying to do the best we can is that right

Robotics Team: yeah that's pretty much it

Keith: now how do you practice for the event do you is your robot lifting weights and punching sides of beef and all that kind of stuff how do you how do you practice for an event like this

Robotics Team: we have our own field and cones

Keith: oh okay

Robotics Team: we'll lay that out like I wanna say like after we all finish building and we'll just go at it

Kyle: do y'all practice in-house

Robotics Team: yeah

Keith: so is there like a code that you write and then you have to refine it as you go along

Robotics Team: yes it is...

Keith: I was a history major y'all so I don't know all of this stuff is

Robotics Team: I probably code as soon as I code the bot we'll test it and then after that I probably had to change the code another six times just to get it perfect so the bot just run smoothly

Kyle: and so

Robotics Team: please every year the competition changes so every year the program changes and then you also have to change the robot along the way

Kyle: the challenge presented by the competition changes okay it's not the same thing every okay that makes sense this might have just come to me but this is a hands off event you put the robot down and it does its thing you don't get to interact with it is that correct

Robotics Team: yes that's for one part that's the autonomous but other than that we have to control them

Kyle: do does each team have a driver

Robotics Team: yes

Kyle: do y'all switch off how does that work

Robotics Team: we have to switch off we have like two in the competitions it really depends on which team cuz some teams will have it so that there's a designated driver some teams will have it switch up the designated driver you drive for this match I'll drive for this match and some even have it so that they have partner controls so that two people can be driving at the same time one doing one thing the other doing another

Kyle: do y'all do any of that

Robotics Team: no

Keith: is there a pit crew? do y'all come out with like WD-40 on your belt and oh this is sticking a little bit

Robotics Team: no but there's not a pit crew in match, if you tear in the middle of a match it's over with unless you can work some kind of magic without anyone noticing

Keith: LOOK OVER THERE! then you try to MacGyver something real quick

Robotics Team: but anytime any window you have before you go out into a match and when you bring it back out like while you're carrying it back out to your area you can be working on it while you take it back so yeah there's pit crews

Kyle: has that ever happened in a competition

Robotics Team: yes wires came out batteries died wheels fell off got tangled up in another robot it was just everything basically well we did get it fixed though before the next match

Kyle: so you have a window after the match

Robotics Team: yeah. sometimes you don't have that window they have at least two matches back to back but you get a paper and you can look at how much time you have between each match

Robotics Team: well not always back to back, some have two matches before you go to the next one but too close that you wouldn't be able to do anything

Kyle: average time what are we saying here five minutes or like fifteen

Robotics Team: each match is two minutes in total

Keith: oh wow

Robotics Team: 15 seconds for autonomous and one forty-five for driver control it seems a lot longer while you're doing it but at the same time it seems like

Keith: blink of an eye I bet

Robotics Team: in the middle of it it is going by quick it's hard to explain but it's a long two minutes

Kyle: it sounds like an adrenaline-filled two minutes everyone's watching and the drivers focus and it's it seems like there might be a lot of hype

Keith: so during the match is everybody quiet or is it loud and raucous and cheering are you cheering on your robot

Robotics Team: it's loud in general because of the robots you can hear the whole robot moving like the wheels turning the gears moving or clicking, the sound of a claw opening and closing

Keith: and you start to get weirded out oh it's not supposed to make that sound

Robotics Team: some sounds are meant to be heard off the robot

Keith: but that loud grinding probably not

Robotics Team: as soon as it starts clicking that's game over. if you hear one click, you should stop. hey why the arm's clicking.

Keith: start chewing that gum now we're gonna need it there between the next match so you guys have a thing on Saturday this was going to go way afterwards but on the 3rd of March in Gadsden so this is which is will potentially qualify you to go to Kentucky for Worlds is that correct

Kyle: so the challenge that you have coming up this coming Saturday as we're recording can you explain a little bit about what that challenge that

Keith: is it stacking cones or what is the thing

Robotics Team: it's still stacking cones

Keith: so they just change from year to year

Robotics Team: yeah

Kyle: okay okay alright

Robotics Team: but it is harder because at state you have all the teams who are qualified from each qualifier so you have the best teams who out the excellence award the tournament championship come at you at one point

Kyle: you're in the big leagues at this point you're playing pros although all the teams whose robots have crashed and burned you're not playing those guys anymore you're playing people that want as bad as you do

Keith: so do y'all decorate the robots do you pretty them up put the logo on it

Robotics Team: you can decorate them but in the rules you can't make a decoration that will have a function to it

Kyle: you can paint it or put something on it

Keith: yeah that's what i was...

Robotics Team: we personally don't do it but we have seen teams that have

Keith: ok y'all are just all business is what I'm getting y'all are just we're not we are here to make friends we ain't here to make y'all's day pleasant

Kyle: any easier

Keith: we're here to kick y'all's rears and get to Kentucky

Robotics Team: yeah

Keith: well that's great well so how do so how do you all raise funds for I'm sure that the that y'all's robots ain't free

Robotics Team: lots of fundraisers t-shirt sales right now we're trying to work on one that's the last one

Keith: so for those since this is audio it's it's gears that are word clouds

Kyle: the drones civil collaborations a couple of things I STEM and it says building strong students with stem that is really that is very neat

Keith: so if anybody were to say want to help support the Loachapoka Robotics team who would they make a check out to

Robotics Team: Loachapoka robotics and anything they bring to the school, label it Loachapoka robotics and it'll come into our STEM program

Keith: fantastic

Kyle: so for the purpose of the podcast anyone's listening we have provided all of our contact information at the start of this thing um you can send it there and we can forward it on just

Keith: absolutely absolutely and we'll put links do y'all have your own website

Robotics Team: we currently have links on instagram and facebook

Keith: and we'll link that stuff up in the show notes on here so to help y'all out well guys thank you all for sitting down with us good luck this week and hopefully by the time this goes up we'll be telling folks that y'all have kicked all kinds of rear end up in Kentucky send all those everybody else home crying on their long bus rides home but yeah anyways thank you guys so much and stay awesome everybody okay

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