

Mr. Ball graduated from the University of Michigan with a B.S. in physics, and he later graduated from Rice University with an M.S. in physics. Mr. Ball is currently in his second year of teaching at the Academy of Science and Technology, where he teaches Pre-AP Physics, AP Physics, Electronics and Robotics. Mr. Ball has been with Texas Torque from the day he taught at the Academy of Science and Technology, he and has tirelessly worked to contribute to the team ever since. Mr. Ball is passionate and inspires youth to explore STEM fields and become positive members of their communities. Through his involvement with FIRST Robotics he has had the amazing opportunity to influence fellow students in positive ways.

- Reagan Spexarth from Texas Torque 1477

**Name:** Jason Ball

**CD Username:** [J\\_Ball](#)

**Current Gig/Job:** AP Physics and electronics teacher at The Conroe ISD Academy of Science and Technology

**Alma Mater/Degree:** University of Michigan (B.S. in physics, 2010), Rice University (M.S. in physics, 2013).

**Current Team:** [1477 Texas Torque](#)

**Former Team:** 573 Mechwarriors represent my old high school, although I was never a member.

**Location:** Spring, Texas

**Hobbies:** Reading, video games, electronics projects, watching sportsball (especially University of Michigan and Detroit sportsball).



### **What is your day job?**

I'm a physics teacher. I teach basic principles of mechanics and electromagnetism to high school juniors and seniors. I also get to shop at Toys 'R' Us for Nerf guns to use in class, build fruit batteries, launch water balloons across the parking lot with a homemade slingshot, talk with students about black holes, the standard model, and the LHC for hours after school, find new and interesting ways for students to break the Java applets used in my virtual labs, light snack foods on fire to measure their caloric content, and generally have fun at my job.

Jokes and fun aside, science and physics education are things that have become very near and dear to my heart. Taking AP Physics B in high school was a dramatic turning point in my life – before that I was leaning more towards majoring in psychology or possibly history. That course frankly blew my mind and every new topic we covered became the new coolest thing ever. From then on it was never in doubt what I wanted to do with my life. It always saddens me when I tell people that I am a physics teacher and they cringe and tell me how much they disliked it. I strive to get the opposite reaction out of my students. I want the STEM fields to flourish and I want them to be a part of that. I want them to see that the laws of physics can be beautiful simplicities or intricate puzzles. I want them to appreciate the inconceivable nature of nature, as Feynman once put it. I live for the moments when my kids "get it" – when the proverbial light bulb goes off in their heads – and I find it much more rewarding than anything I can possibly measure in the lab myself.

In short, I love my job.

### **What is your favorite story to tell about robotics?**

Apparently after the first time I met the students on Texas Torque they decided that one of the current students and I were so similar that I must be a version of him sent from the future. That

single joke spawned a whole life of its own and resulted in multiple running gags and at least one picture posted to Facebook of him and I both wearing our Torque shirts. Welcome to Torque weirdness.

### **What's your favorite robot that you didn't help build?**

Texas Torque 2014. Just kidding, somewhat. I also really liked CRyptonite's robot this year.

### **What apps/software/tools can't you live without?**

Whiteboard markers. I'm old-school when it comes to, well, school. I don't care much for PowerPoint – instead I enjoy drawing all manner of ridiculous diagrams and problems on the board. Legal pads and lab notebooks for scribbling down all my lesson and experiment ideas whenever they happen to come to me – creativity doesn't just turn on like a faucet! Physics textbooks from 1939 with problems that you can't look up on the internet. My TI Nspire CAS calculator, it just does so many cool things and I've barely scratched the surface.

As far as techie stuff goes, I recently obtained a Kindle e-reader and it's helped me accomplish my goal of reading more books and checking the news more often this past summer. On the flipside of that I made the mistake of pairing it with my Roku at home and that has definitely NOT helped me read more. I like the Chase Bank, eTrade, and Mint.com apps for the Kindle (I am kind of paranoid about my finances).

Other random things I would have a hard time subsisting without include Netflix, Amazon Prime, Steam, the Roku mentioned above, Pandora, Urbanspoon, Wolfram Alpha, Georgia State's Hyperphysics website (even teachers need to brush up occasionally!), and Pretty Good Physics, another teacher resource site.

### **What's your workplace setup like?**

I have a BIG classroom – it houses around 30 desks and 6 lab tables for doing experiments as well as lots of storage for random physics toys. Digging through Mr. Rip's old stuff more often than not resembles an archaeological dig and I still occasionally find things that I never knew were there. The lab tables usually become pretty cluttered with physics and electronics equipment and trying to keep it separated becomes a real pain (not to mention trying to keep the physics students, robotics students in particular, from playing with the electronics setups and vice versa). In contrast I try to keep my desk clean but it inevitably becomes littered with papers and random junk as the year drags on. I keep my computer in the front of the room but I'm rarely seated at it unless the students are working on a test. One day last fall I felt like doing something different so I rearranged all the desks in the room from rows to a more college lecture-hall type format. It's going to stay for the time being – no one will be hiding in the back of the room this year!

### **What do you listen to while you work?**

I have a fairly eclectic taste in music. Let's just do a random iPod shuffle to illustrate this. Seventies hard rock? [Check](#). 80s thrash metal? [Check](#). Instrumental shred guitar? [Check](#). Weird droning anti-music? [Check](#). Flamenco guitar? [Check](#). Half-hour long southern rock jams? [Check](#). Death metal? [Check](#). Electronic bleepy-bloopy stuff? [Check](#). Pretentious prog? [Check](#). Video game music? [Check](#). Synthpop? [Check](#). Primus? [Primus](#). Dubstep? No. Friends don't let friends listen to dubstep.

**What's your schedule like during build season?**

Wake up at 5am, be at work by 6. Have an hour or so of prep time before students start rolling in. Work from 7:20pm-2:35pm, trying to get as much done as I can. Attend Torque build meetings from 3pm-8pm. Go home and prepare for the next class day. Try to be in bed by 11pm. Saturdays we also meet from 8am to late. Sundays I prepare lesson plans for the upcoming week and do all my cooking for the week – I cook 3-4 meals Sunday afternoon and keep them all in Gladware containers in my fridge.

**What everyday thing are you better at than anyone else?**

Writing physics problems involving Justin Bieber, One Direction, Miley Cyrus, Mario, escaped cats, lazy boy scouts, and refrigerators.

I can kick your butt as a Medic in TF2 or as Snake in SSBB.

**What's the best advice you've ever received?**

"To hold our tongues when everyone is gossiping, to smile without hostility at people and institutions, to compensate for the shortage of the love in the world with more love in small, private matters; to be more faithful in our work, to show greater patience, to forgo the cheap revenge obtainable from mockery and criticism: all these are things we can do."

- Hermann Hesse

**What is your favorite guilty pleasure?**

I am fond of Ke\$ha's music.

**Anything else you want people to know about you?**

The picture above is OBVIOUSLY photoshopped.

"The only true *wisdom* is knowing you know nothing." - Socrates