

Tips for a Virtual Season

John Toebes (FTC 2901 - Purple Gears)

Maria Hunter Mackie (FTC 13883 - The Razzle Dazzle of Fantazzmagazzles)

Alan Smith (FTC 16072 - Quantum Quacks)

Rick Hallihan (FTC 16461 - Infinite Turtles)

Agenda

Introducing panelists

Sample virtual Meeting flow - share what your typical meeting looks like

Avoid - each panelist shares something that did NOT go well virtually

Tools - share tools that seem to work for you

Q & A (majority of time)



Why?

Our hope is to:

- Encourage you that while virtual meetings are tough, you can do them
- Provide a range of things different teams are doing so you can pick what might work for you.
- Help you to avoid some of the pitfalls we have had
- Help you know that you aren't alone

Join the [NC FIRST Tech Challenge Coach Forum](https://groups.google.com/forum/#!forum/nc-ftc-coaches/join) by going here:
<https://groups.google.com/forum/#!forum/nc-ftc-coaches/join>



Introducing panelists

John Toebes

- FTC 2901 - Purple Gears - 22 students
- Coaching for 13 years

Maria Hunter Mackie

- FTC 13883 - The Razzle Dazzle of Fantazzmagazzles - 14 students
- Coaching for 4 years

Alan Smith

- FTC 16072 - Quantum Quacks - 12 students
- 2nd year coaching FTC, 7 years FLL

Rick Hallihan

- FTC 16461 - Infinite Turtles - 10 students
- 2nd year coaching FTC, 5 years FLL

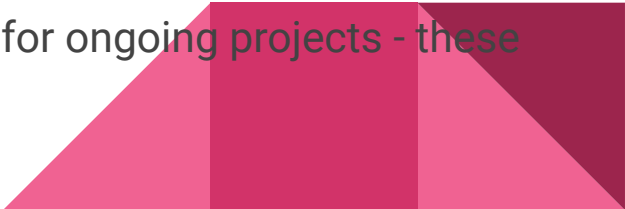


Infinite Turtles - Sample Meeting Flow

- Students have a shared document to pitch ideas for the next meeting
- Coaches put together agenda & schedule Google Meet call
- Meeting begins with business that everyone needs to be involved in (5 to 30 minutes)
- Breakouts to smaller groups for work on tasks from planning sheet
- Last 15 minutes - everyone back together to share and recap

Meetings over the summer have been 60 to 90 minutes every couple of weeks. Students decided to increase to 2+ hours weekly as soon as the season is revealed, and will likely split between Saturday and Monday.


Some sub-groups have been calling ad-hoc meetings as needed for ongoing projects - these are more productive than anything the coaches are involved in.



Razzle Dazzle - Sample Meeting Flow

We have been meeting once a week for a 1.5 - 2 hour meeting

Groups of 3-6 students can be working on solving the same problem or have different topics and goals

- People log on until 7:05
 - First student in the meeting gets to come up with the question of the day. This gets used whenever an awkward silence falls as people log on
 - Write engineering notebook basic entry information
 - Go over the agenda
 - Get quick updates on any topic that moved forward (Ex: social media or grant opportunities)
 - Small groups
 - Break into small groups for 30-45 minutes
 - Mid meeting report about how it is going
 - Break into small groups again for 30-45 minutes
 - Debrief, bring up anything that needs to happen next meeting
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Quantum Quacks - Sample Meeting Flow

- (before hand) - Send zoom link and link to blank doc for what we are trying to accomplish
- First 5 minutes - let people come in and say Hi to each other
- Share screen of meeting doc - solve simple ones (15 min)
- Split into subgroups (3-4 students) to work on things for 30 minutes
- Come back - find out where groups are, either change groups or keep same
- Split again (15 minutes)
- Team builder activity (15-30 min: Students come up with ahead of time. When we run out, the team builder activity is to generate more activities for future)
- Split again (until 15 min left)
- What did you work on, what did you learn, next steps
- After meeting, students update engineering notebook



Purple Gears - Sample Meeting Flow

- Meet 3x week: Tue/Thu/Sat. One 2-week break over the summer.
- Standing repeat Zoom links for meetings (Builders, Programmers separate)
- 15 min before meeting, re-post zoom link on Slack, indicate whether programmers also join builders meeting.
- Open meeting up 10-15 minutes early.
- First 5 minutes check in, update notebook, general chat.
- Discussion of goals for current meeting.
- Regular screen sharing by students showing work
- Breakout rooms when needed
- Everyone uses video!
- Guest speaker teaching how to make circuit boards
- Collaborated on [Robots to the Rescue](#)

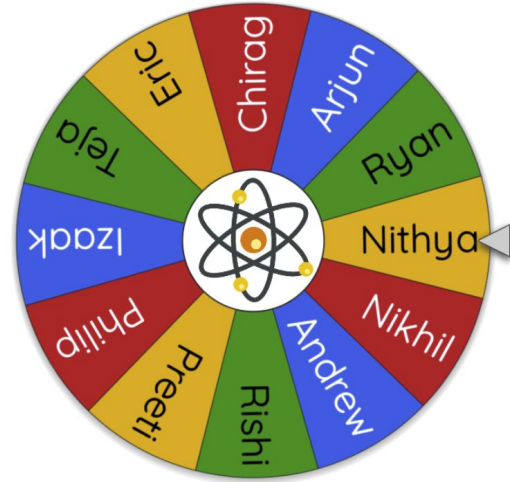


AVOID - Something that has not worked well

- Purple Gears
 - Students not on video don't participate as much
 - Harder to recruit new members from a virtual school
 - Not all students enjoy solid CAD and do miss the physical building
- Quantum Quacks
 - Trying to get the whole team to discuss something as a group first.
 - Better - split into subgroups (3-4 students) and have them report back
- Razzle Dazzle
 - Avoid asking what "they" think/learned etc. Ask specific people or people with _ letter in their name
 - When breaking into small groups make sure everyone understand what level of work to go till
 - Brainstorming with no small group decisions or plan of action for approval or voting or decision to inform the group of.
- Infinite Turtles
 - Relying on "volunteers" to speak up - we kept hearing from the same students. Changed to more of a roll-call for things needing team input.
 - Shared doc call for input with a deadline over email (Team name). Nobody added anything. Better: Everyone opens the doc during a video call and types like mad.

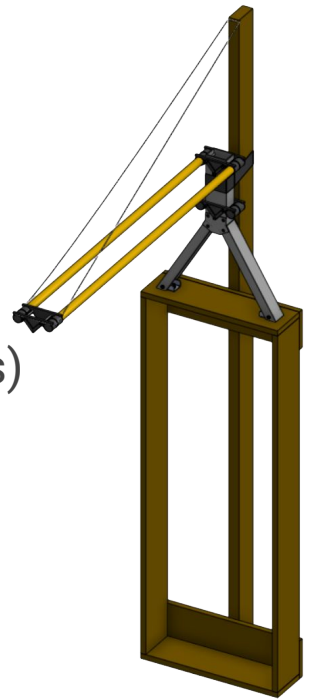
Tools that you use - Quantum Quacks

- Team communication - <http://slack.com/>
- Remote meetings - <http://zoom.us/>
- Project Management - <http://clickup.com>
- To select students to answer questions or give ideas - <https://wheelofnames.com>
- Source control - <http://github.com>
- Shared documents - Google Docs
- Our own custom webapp for engineering notebook minutes
- CAD - Fusion360 (a pain to get licenses and installed)



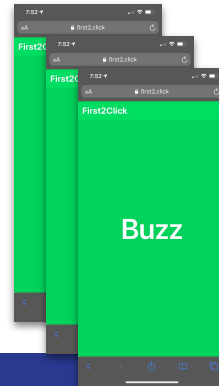
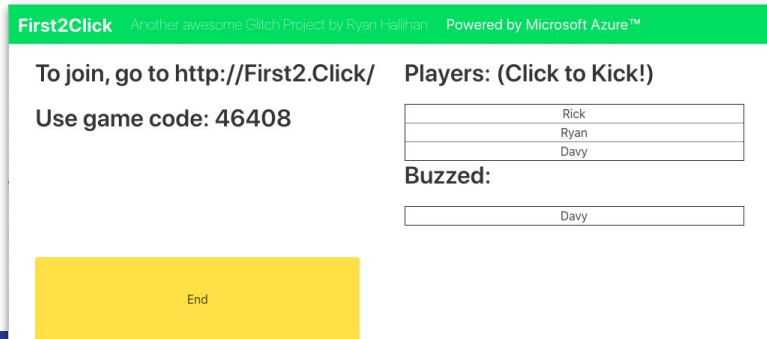
Tools that you use - Purple Gears

- Team communication - <http://slack.com/>
- Online Collaboration - <http://zoom.us/> (school provided accounts)
- Source control - <http://github.com>
- Shared documents - Google Docs
- CAD - Onshape - <https://www.onshape.com/education-plan>
 - Regular showcasing of new features
 - Collaboration on Parts Library
 - Constant CAD collaboration opened up opportunities for virtual presentations outside of NC.
- Remote Field Camera Boom
 - <https://cad.onshape.com/documents/28ba6ffd4b80e5700d62a311/w/9d7e3e3e1e3c1f9febba8977/e/8b920428ead266e79269d85a>
 - Phone joins the zoom session or is shared via DroidCam



Tools that you use - Infinite Turtles

- Team Communication - G Suite for Nonprofit (Google Apps) - <https://www.google.com/nonprofits/offerings/apps-for-nonprofits/>
 - Email, Google Hangouts Chat, Google Meet, Google Docs (Team Shared Drive)
- Project Management - Google Sheet in shared drive
- Source control - <http://github.com>
- CAD - Onshape - <https://www.onshape.com/education-plan>
- Interactive Quiz Buzzer - <https://first2.click/>



Tools that you use - Razzle Dazzle

- Team Communication
 - Discord
 - Google Drive (shared team folder)
 - Google Drive (shared coaches folder)
- Remote meetings - <http://zoom.us/>
 - Useful tools: Zoom polls, breakout rooms, and reactions are helpful
- Source control - <http://github.com>
- CAD - Onshape - <https://www.onshape.com/education-plan>
- Project Management - Google Sheets and Docs



Q & A

To subscribe to NC FTC Coaches mailing list which is a fantastic place to ask questions throughout the season...

