PRESENTATION SKILLS

MODULE 8

OVERVIEW

ARC

STEM FIELDS

- Aerospace, Software, Electrical, Forensics, Military, Structural, Nuclear, Systems, Biomedical, Civil, Chemical, Environmental, Genetics, Mechanical

A WORLD OF OPPORTUNITY

- STEM Fields of Study
  - Aerospace
  - Software
  - Electrical
  - Forensics
  - Military
  - Structural
  - Nuclear
  - Systems
  - Biomedical
  - Civil
  - Chemical
  - Environmental
  - Genetics
  - Mechanical

ARC

Content

- Deciding what information to share

Visuals

- Creating captivating presentations

Delivery

- Entertaining and teaching your audience

CONTENT

CHOOSING YOUR CONTENT

1. **Write an outline BEFORE making your slides**
2. **Think about your audience**
   - What do they want to hear?
   - Hint: follow the rubric (how the judges grade)!
   - See next slide
3. **Select visuals to make an interesting and informative presentation**
4. **Give yourself lots of time to edit**
   - Start early and make changes as needed
   - Ask others to look over your work and catch mistakes

ARC

- **Team Introduction:**
  - Names
  - Picture of team
- **Team Approach:**
  - Division of labor
  - Learning
- **Software Design Approach:**
  - General flow diagram describing software flow
  - Algorithm design
  - Built-in robustness
- **Testing:**
  - # of attempts
  - Metrics from attempts
- **Lessons Learned**

EXAMPLE OUTLINE:

1. Opening slide: team name, picture of drone
2. Team organization: list our names, put team picture
3. Schedule: give a chart of our tasks and timeline
   .
   .
   .
15. Closing slide: thank you, questions, picture

Write an Outline!

4-I TECHNIQUE

Informational — Is all the important **information** there?

Interesting — Is this an **interesting** presentation to attend?

Inspirational — Will your audience feel **inspired** to do more?

Influential — Will this **influence** a listener to act?

VISUALS

- Having too much text will make your slide very boring. There is no way a reader will enjoy reading a full paragraph in one bullet point, and it is much simpler to make it much shorter with concise wording. You can say all of this, or you could just say "Be concise."
- COLORS and *fonts* are **FUN**! But they are also distracting and can make reading very difficult.
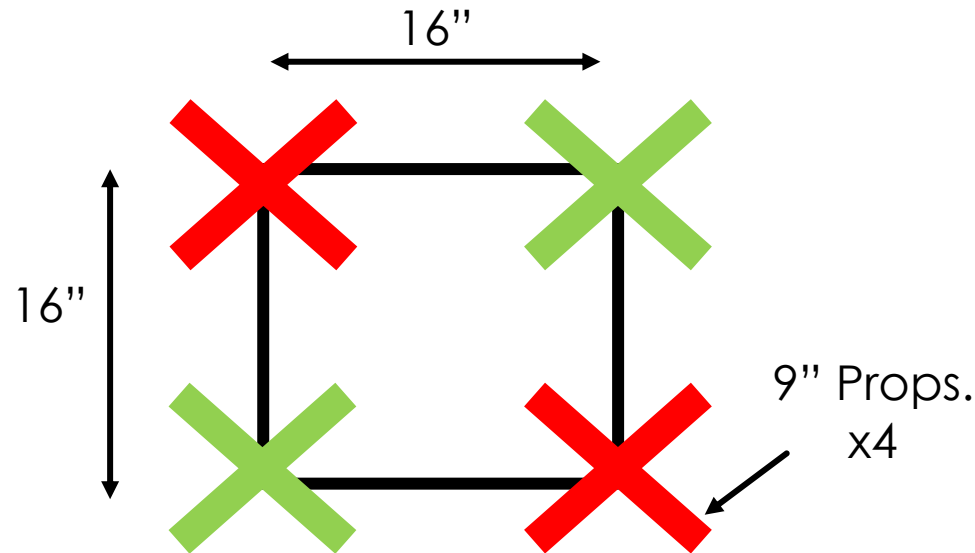- Images are great, but be careful not to clutter!

Putting this image in the background makes reading text difficult

Too many images together gets confusing

- **Explain Drone Dimensions:**

1. Using words:

This drone is a 16"x16" square, with 4 propellers that are each 9"

OR

2. Using a diagram:

16"

16"

9" Props.
x4

The diagram is much more fun to look at!

DELIVERY

WARNING

Lots of text ahead!
Take it slow and review these
tips often as you practice

- **Confidence is key!**
- **Don't read from your slides**
  - Make sure you know what you want to say before the slide even appears
- **Also don't memorize your lines word for word**
  - This sounds stiff
  - If you forget a line, you'll be fumbling for words
- **Show your passion and enthusiasm**
- **Watch your speed**
  - Don't get nervous and talk super fast
  - Don't get bogged down if you can't remember something

Bottom line: improvise.

No, really, it's ok to do that! Rehearse so you know what to say, but be sure to leave yourselves flexibility to feel natural. Just share your passion with the judges. It's ok if you mess up; just move past it and keep going the best you can.

- **Eye contact**
- **Gesture with your hands to add animation**
- **No fidgeting**
  - Avoid playing with clicker, pen, clothing, etc.
- **Stand up straight with no hands in your pockets**
  - Don't lean on the table/podium/whiteboard
- **Face the audience**
- **Look at the current presenter and judges while they're talking**
  - Pretend it's a conversation
- **Again, show your passion**
  - Feel free to smile when you share something cool!
  - Laugh if something clearly goes wrong or a judge tells a joke
  - The judges will remember the fun parts of your presentation best

This seems like a lot of rules, but remember: **practice makes perfect**. Every time you practice, keep these rules in mind, and you'll improve each time.

ANSWERING QUESTIONS

TIPS & TRICKS

- **Always put a positive spin on your answers:**
  - <u>Example question:</u> "Why did you decide to compete at the beginner level?"
    - <u>Negative answer:</u> "Well, we wanted to try the advanced, but we couldn't get it to work, so we gave up."
    - <u>Positive answer:</u> "As a new team, we definitely faced lots of challenges with this competition! We decided to focus our efforts on learning introductory coding and controls. We are really proud of ourselves for completing the beginner level and proving ourselves a programmers, so we'll be able to focus next year on a more difficult level."

- **Elaborate – never give a one-word answer:**
  - Example question: "Did you all learn how to program?"
    - One-word answer: "Yes"
    - Elaborative answer: "Yes, we spent several weeks completing Python programming challenges together, which allowed us all to be equally knowledgeable and engaged in the Tello programming."

- **Plan ahead of time who will answer which questions:**
  - Example: student A will answer anything about frame, student B will answer anything about ground station, etc.
  - Example: student A will pick someone as each question is given

PRACTICE QUESTIONS

Practice asking each other these questions and more! Remember to use the tips & tricks from the previous slide when answering.

- What are each of your roles on the team?
- How did you decide on your design?
- What would you like to improve next year?
- What's something you wish you did differently?
- Can you walk us through your code?
- What is something unique about your design?
- What is something unique about your team?
- How did you manage to work together as a team and ensure inclusion?
- What are you most proud of?
- How did you decide how many points to aim for?
- Tell us about how you practiced your autonomous missions.
- Explain the steps you took during the designing, programming, and testing stages.

RESOURCES

MORE RESOURCES

- **Presentation Tips:**
  - https://www.lifewire.com/presentation-tips-for-students-2766920
  - https://www.uopeople.edu/blog/presentation-tips-for-students/
- **Body Language Tips:**
  https://www.presentationtraininginstitute.com/body-language-tips-for-presenters/