

---

---

# Drones

## Shell Knob

Brooke Remerscheid, Max Schuman, Millie Thompson-Krug

---

---

# AGT Drones



# KWL: What do you KNOW about drones?

- They fly
- AI
- Use propellers
- Battery powered
- Four motors
- Lights
- They move whatever way you tell them to
- Electric
- Have to be coded
- Use for military, photos, videos, package delivery

# KWL: What do you WANT to know about drones?

- How to make them play sound
- How to make them do tricks
- How they light up
- How to use coding software
- Why do you have to code it
- How to implement drone coding in daily life
- Why do they malfunction
- How do they do a drone light show (like on AGT)

# Goal

Little tech wiz Timmy tried to make his brand-new drone fly in different directions three times in a row. On the first attempt, it zoomed into the neighbor's backyard, on the second, it darted towards the roof, and on the third, it got caught in a tree. Timmy shrugged and said, "Well, at least I've mastered the art of turning my drone into a neighborhood explorer!"

**Goal: Make the drone fly in a particular shape.**

# Levels

You will all start as Betas, once you complete the first level you will move up to Alpha. Only a few will reach Sigma status....will it be you?

**BETA:** Make the drone fly in a SQUARE.

**ALPHA:** Make the drone fly in a TRIANGLE.

**SIGMA:** Make the drone fly in a STAR.

# Groups

<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>	<b>Group 4</b>	<b>Group 5</b>
Lucas	Lennox	Roman	Harlie	Ryan
Jalie	Wyatt	Easton	Luke	Nolan
RJ		Allie	Aubrianna	Landyn
<b>Group 6</b>	<b>Group 7</b>	<b>Group 8</b>	<b>Group 9</b>	<b>Group 10</b>
Emma	Emmie	Darin	Tiegan	Aiden
Addison	Wesley	Dexter	Emma	Zayla
	Payton	Khale		
<b>Group 11</b>	<b>Group 12</b>	<b>Group 13</b>	<b>Group 14</b>	<b>Group 15</b>
Cooper	Kinsley	Emilie	Dylan	Eli
Austin	Brody	Gresyn	Cassie	Ryder
Kim	Abby	Emma	Kyley	Isaiah

# Pairing Your Drone

1. Open the Chrome browser and search for `chrome://flags`
2. Enable “Experimental Web Platform features”
3. Relaunch Chrome browser
4. Go to <http://www.robotlink.com/blockly-cdm>
5. **CHOOSE CODRONE EDU (CODRONE MINI)**
6. Plug in the red (yellow) cord to both your computer and your controller
7. Click “pair”
8. Choose the port that is plugged in
9. Connect the controller



# Pairing Your Drone

Page 14 in the Drone Manual (for codrone edu)

1. Put drone in pairing mode: put a battery in the drone and press the small button opposite of the charging port.
2. Press and hold P on the controller. Be sure to go out of LINK mode by pressing the Power button once quickly. Then press the P until you hear a chime.
3. Verify that you're paired by ensuring the same color light is on both the drone and the controller.

## KWL: What have you LEARNED about drones?

- It took more blocks than they thought to make a simple shape.
- Had to slow down and think through all of the steps.
- Coding the specific angles for different shapes.
- Must have specific instructions for the code to work properly.
- The use of computational thinking.
- Always be aware of where the drones are and where you are during flight.
- More difficult process than originally thought
- Easy to connect to another drone without realizing what happened.

# Class Discussion/Student Example Codes

What are the benefits of coding drones?

How have your feelings about coding changed since beginning the coding lessons?

What was a challenge you faced and how did you overcome it?

[PADLET](#)

# Pictures





# Pictures





# What Went Wrong...

- Trouble pairing drones with controllers
  - ◆ Solution: spread groups out during pairing process
- Be sure to allow plenty of time
  - ◆ We should have added more time for set up with the amount of groups we had
- Those with long hair should have it pulled back
- Not feeling equipped to add the battery power condition
  - ◆ We should have had more lessons on block options on Blockly specifically



QUESTIONS?