Sports Hall STEM Club

11/17/18

Today's themes are: The Robot's Remote Control and The Principles of a Remote Control

*Read **p.41** and **p.65** out loud with a partner!*

Questions

Comic #1

- **What sensor is used to send information to the TV?**
- **How does the remote IR sensor work?**
- **Why can't a TV remote controller be used on a radio or air conditioner?**

Comic #2

- **What is one way to stop the remote from working?**
- **What are the 3 different signals given off by the remote in the comic?**
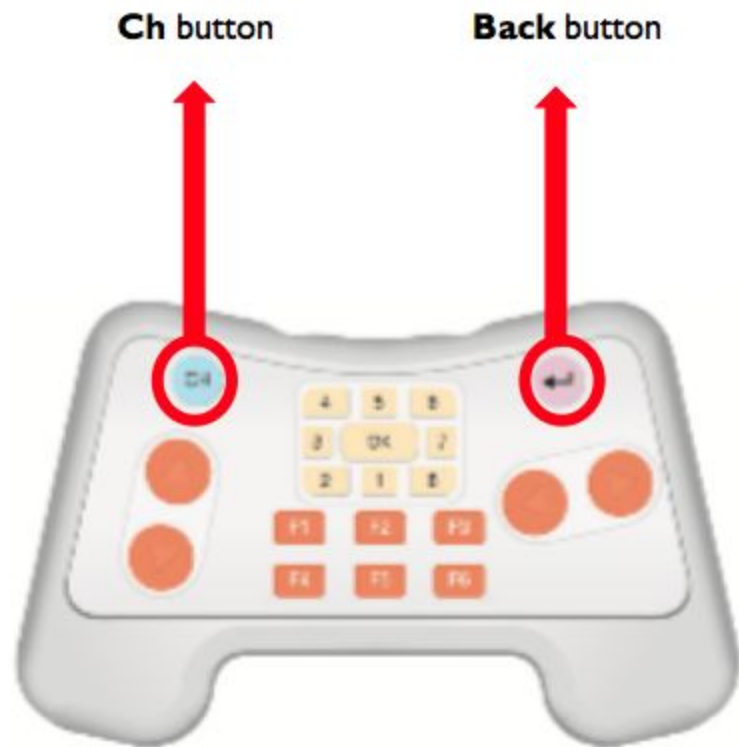
The Robot's Remote Control R/C

- Find it in your kit!
- Let's Find out how to change the R/C channel! **Everyone should be able to change the channel by the end of today!**

Remote Controller (1)

SET REMOTE CONTROL ID

– Press **back**, then **ch** —then release **ch**

– now you are in **selection mode**

– press **back** to navigate the ID (1-8) options

– once you land on the desired ID, press **ch**

– your menu will *blink* 3 times to confirm selection

– press **back** to see what ID is now selected

– *Remember to set remote ID on the bot as well!*

Ch button   **Back** button

Remote Controller (1)

LET'S GET TO WORK!

3 Groups

- Scratch Programming Team
- Robotics Team
- Khan Academy Team

Scratch Programming Team -- Create an animation that incorporates the concept of a remote control!

- Create a Scratch Animation that reflects real-world examples of a remote control! Mention what type of remote control it is, make sure you mention what signals it is sending. We should also see the object being controlled by the remote!
- You can:
  - Create a voice recording explaining the concept
  - Create a comic where your sprites are talking about remote controls
  - OR Create anything that incorporates what you learned today!
  - **USE YOUR CREATIVITY**
- Ask anyone on the STEM Team if you need help!

- Build the Duckling from the Blue book (p.19)
- Discuss how the remote will control its movement! Tell someone from the STEM team!

Khan Academy

Begin Practicing Math Subject on the Khan Academy App -- Ask anyone on the STEM Team If you need help and let us know when you start a new lesson, and if you need any help.

Now it's time to swap teams everyone! Break down your robots and clear your Scratch programs!