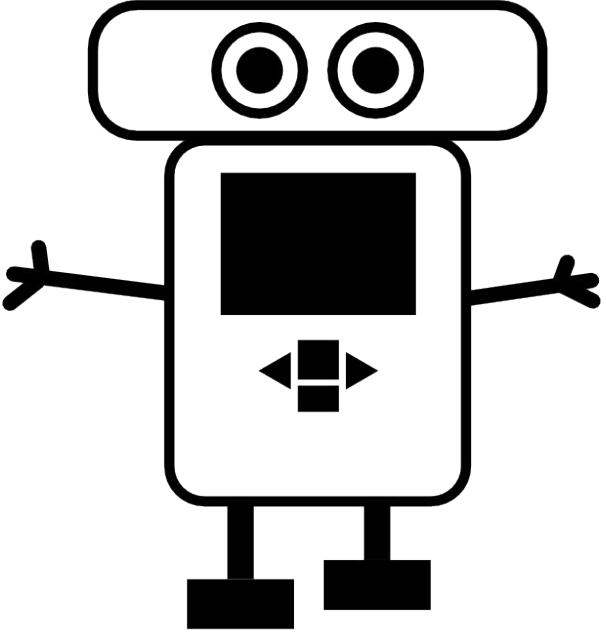


**2016-2017
Season**

RADICAL



ROBOTS

Agenda

- Overview of club
- Assemble notebooks
- 4-H Registration Forms
- Permission forms for Competition
- Policies/Rules
- Fundraiser

Club Overview

- Meet every other Friday at 5:30 at the Extension Office
 - Reminders are posted to the club's facebook page during the week of the meeting (<http://www.facebook.com/ashlandroboticsclub>) and are also emailed.
- Folders containing handouts will be laid out at the start of the meeting for members to pick up as they come in.
- We go over the club rules at the start of each meeting. (You should have a copy in your folder so this goes faster!)
- Many of you will be working with a partner (we don't have enough robots for everyone to be on their own.)
- If you have a laptop (or robot) of your own, we'd appreciate you using that! (We can provide the software.)

Assemble notebooks

Registration Forms

- All members of the Radical Robots will be registered in 4-H (if you are in another club, this does not replace your other club.)
- Unless otherwise specified, the email on the registration form is the one we will use to contact you about club events.

Permission Form For Competition

The National Robots Challenge has a Parent/Guardian authorization form. We need this before the competition, but ask that you turn it in asap (along with the 4H registration form.)

Policies/Rules

- Please refer to handouts
- Dues for 2017 are \$25 per member, or \$20 each for siblings.
- NEW FOR 2017: We will no longer be having scheduled snacks. Because members may not have had a chance to eat after school before coming to the meeting, they may bring something light (crackers, pretzels, etc.) to eat **before** the meeting (must be finished before working on the robots.) They are permitted to have a closeable water bottle at their workstations, and it must be water (nothing that would leave a sticky residue.)

Fundraiser

- We will be doing the Little Caesar's pizza kits again
- This helps to cover the cost of replacing equipment, shirts, etc.
 - We WILL be building a full-size version of the maze this year!

Robots



- The club owns several LEGO Mindstorms NXT and EV3 kits. Members who also own their own kits are encouraged to use those.
- LEGO kits are relatively easy to build and program.
- Easy to customize.
- Very lightweight, so you'll want to add weight to them for the sumo contest.
- Somewhat expensive (the Educational kits run about \$350-\$400 each.)

Alternatives to Mindstorms

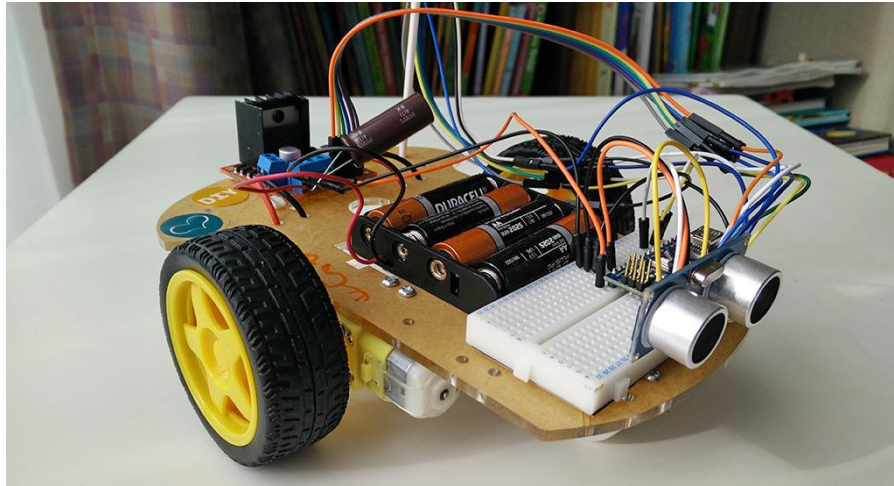
VEX Robotics

- Popular among more advanced users
- Building is similar to LEGO Mindstorms
- Programming will be different
- Price is competitive to LEGO (Amazon currently shows a kit for \$215 + \$7 shipping.)



Alternatives to Mindstorms

Completely custom using programmable microprocessors (i.e. Arduino or clones.)



Alternatives to Mindstorms

Completely custom using programmable microprocessors (i.e. Arduino or clones.)

- More difficult to build, as it's not generally a kit.
- More difficult to program
 - However, there are various methods: Programming (code-based), Skitch (graphical)
- More freedom in the design
 - You're not limited by pre-molded plastic pieces. Anything you can build could be a robot.
- Easy to add additional sensors, motors, etc.
- Much more affordable (especially if buying from Chinese sellers on eBay.)
 - Robot on previous slide could be built for around \$20, and would be comparable to our maze-solving bots.

If anyone is interested in this, talk to us for more details!