

## VEX IQ- Getting Started

My story: 2/week at lunch

- Coding groups/robot groups
- 25 minutes at play time is not enough. Groups are staying in to eat and continue building

### Helpful hints:

- Have students organize parts on day 1. Perhaps bring a few extra ziplocks as the storage bin can be crowded and hard to find things.
- The parts inventory poster is helpful to students identify parts when building. My students have been using it to problem solve.
- Parts: Some parts are very similar, nearly identical. Before starting, give an example of how two similar pieces may be mixed up and it is counter productive to have to tear apart what you've built.
- Build Instructions: There is a step by step instruction manual that I would recommend they follow.
  - User friendly
  - <https://www.vexrobotics.com/vexiq/resources/robot-builds> - here is a link to other types of build and instruction manuals
  - Allows groups to work independently.
- Coding: Not coding the robot this year.
  - Code.org group
  - Studio.code.org

The Robot:

- Build similarly to LEGO (not exactly) - no tools necessary however pliers may be helpful when removing pieces.
- Use instructions.
- Clawbot
- Has a controller to control

My robot is built, now what?

- Start practicing challenges
  - Pick up and move an object to a desired location
  - Pick up and move as many objects (pop cans) and place them in a box
  - MOver your robot through a course to practice driving skills

**Competition:**

- Move from mid/late May to mid June?
- Arena for competitions? David has one?
- Location: Red Bluff could host or...
- Each competition is 2 minutes long

**Support:**

Video support : <https://www.youtube.com/playlist?list=PLvvcc7S26YEgp60fNJwh64aj9ywiZ79Ta>

**Elementary Robotics 2018:**

- Red Bluff Lhtako- Dean Morrow
- Voyageur Elementary -
- Nazko - ?
- Helen Dixon- Judy Reeves

**Competition ideas:**

**Materials: hockey balls, low walled bin,**

- **Movers:** Move object from point A to point B (timed)
- **Squirrel:** Collect x amount of objects and place them in bin. (timed)
- **Maze battle:** complete tasks as they arise in the maze. Most tasks completed in x time is winner.

**Groups:**

**Tech crew:** take pics and do a write up/update about what we did today: **2-4 students**

(Take pics, upload to padlet, do a brief writeup on padlet)

**Assemble robot:** 4 students at a time

Coding on laptops/chromebook: **Everyone else**

Weeks	objective	activity	materials
Week 1 Intro	<p>Give overview:</p> <p>Review expectations and objectives for the club.</p> <p>Why coding and robotics? -jobs -canadian contributions- canadarm</p> <p>What is computational thinking?</p>	<p>Code.org video Brainstorm Meet the Robot Vex IQ</p> <p>Computational thinking: Refer to printed materials Robot, walker, talker Ping pong in cup</p>	

Week 2: April 2	Intro to coding  Assemble robot	Group 1 Code.org  Small group - assemble robot	
WEek 3 April 9	Practice coding  Assemble robot	Group 1 Code.org  Small group - assemble robot	
Week 4: April 16	Intro to coding  Assemble robot  Update Padlet Page for school website	Group 1 Code.org  small group - assemble robot	
Week 5: April 23	Practice challenges  Continue Coding	Small groups take turns with robot to complete a given task  Rotate after 15 min  ONLINE Coding practice	Directions And controller
Week 6: April 30	Practice challenges  Continue Coding	Small groups take turns with robot to complete a given task  Rotate after 15 min  ONLINE Coding practice	
Week 7: May 7	Practice challenges  Continue Coding	Small groups take turns with robot to complete a given task  Rotate after 15 min  ONLINE Coding practice	
Week 8: May 14	Competition Preparation		
Competition : Week of June ?	TBA	TBA	