

For our Challenge, we decided to deconstruct a VEX IQ controller. This was deconstructed because our team had an unuseable controller.

First, we unscrewed and the back hatch to detach a Li-ion Battery. Then, we unscrewed the 7 screws in the back of the controller. When we have unscrewed the 7 screws we were able to take the back off. Once we have done that we had gotten to the electoral panel. We unscrewed the 4 screws that keep the panel in and then we were able to take it out and get a closer look. Now we can freely look through the parts in the controller.

In the deconstruction of the controller the battery (Li-ion 800mAh) powers the controller. The blue smart radio on the vex controller connects to the brain, after being tethered to the brain with a tether cable. We disconnected the plastic vex joystick tops for a further look into the joysticks. It is a metal rod connected to 2 curved rods in the insides. That is turning the plastic circle on the outside. When turned the circle points to a number (6,8,0, or 103) it sends a code to the processing system of the controller, then through the smart radio to the brain to do the command.

In this experiment, we learned that you always need the correct materials for an experiment. We have learned how vex controllers work, and why they do what they do.