

Final Write Up
Honors advanced topics
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Soldering

For the first learning module, Reilyn and Ryan decided to solder a circuit board. In the practice solder kit there was: a light switch, leds, resistors, jumper wires, a battery snap, an IC Socket 16-pin, transistor, capacitors, solder and a solder wick. In this module Ryan and Reilyn watched some beginner videos provided by their teacher, Mr. Detrick. In the videos they learned about: what Safety precautions they needed to take, what tools they needed, and how to solder in general. By the second day Reilyn and Ryan started to solder. Throughout the practice soldering they ran into a few issues. One of the issues being, that the board was getting burnt and that the solder iron wasn't cooperating as they had hoped. After a little help Ryan and Reilyn realized that the tip of the iron was broken so they had to change the solder tip. After changing the solder tip, the solder became much easier. There were a few more issues throughout the rest of the module including, mixing up the resistors and putting pieces in the wrong spot. Whenever the pieces ended up in the wrong spot they just removed it with a tool that was given to undo the solder. After the project was finished they did a test run on the circuit board and one of the LEDs lit up while the other didn't. They made 2 predictions of what caused the LED to not work and figured out it was because the positive and negative wires from that LED were soldered together on the back of the board. After fixing the solder that connected them, they turned on the board and both of the LEDs worked like they were supposed to. For anyone who attempts to solder, Reilyn and Ryan would recommend making sure you practice first, double check that you have the right piece in the right place before you solder it, and to read the instructions thoroughly. Although the board didn't come out perfect, Ryan and Reilyn still enjoyed soldering and they were relieved that they got the board to work.