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# Lab 1: Introduction to Soldering

## Introduction

The purpose of this lab was very simple: to get acquainted to soldering and removing solder. Soldering is an important thing to know when dealing with circuits and wiring for obvious reasons, so it’s a good thing to know for this class.

## **Part 1: Preparation**

## Experiment

For the first exercise, we were to prepare the soldering gun. We had to heat up the solder gun, coat the iron tip with solder, and then wipe off the tip with a wet sponge to clean and prepare it.

## Results

We each successfully cleaned the solder gun separately.

## **Part 2: Soldering**

## Experiment

For this part, we actually had to do some soldering. We were working with a board that didn't really matter. We had to coat the gun with solder and then press the gun on the circuit board on one side of the wire. The wire had to be touching the solder itself, and then it formed a connection.

## Results

We each successfully cleaned the solder gun separately and then soldered a wire onto two joints.

## **Part 3: De-soldering**

## Experiment

For the first exercise, we were to remove the solder on the board that we had applied in the previous part. We used both a vacuum pump and a solder wick. For both, we had to heat up the solder as if we were soldering again. For the solder wick, it picked up the solder onto the wick itself. For the vacuum pump, we sucked it up by pressing a button once it was warm enough.

## Results

We each successfully warmed up the solder and removed it using both methods. We repeated part 2 so that we were able to each individually try de-soldering with both methods, so we repeated part 2 and 3 a total of 4 times altogether.

## **Conclusion**

Overall, I believe this to be a very important lab since soldering is a good skill to know. It's also nice to know that de-soldering is always an option if need be. Having never soldered anything before this lab, I learned how to do it very easily with this lab.