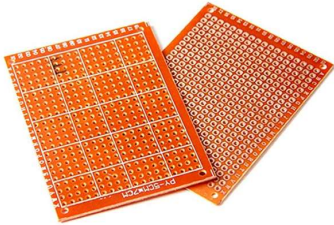


## Soldering

### Supplies

5x7cm Solder Finished Prototype PCB: \$0.29 each



Network Cable: \$2-3 each



USB Soldering Iron: \$5 each from China



USB Adapter (1.6Amp minimum): \$5 each



Solder: \$5-10, nothing fancy needed



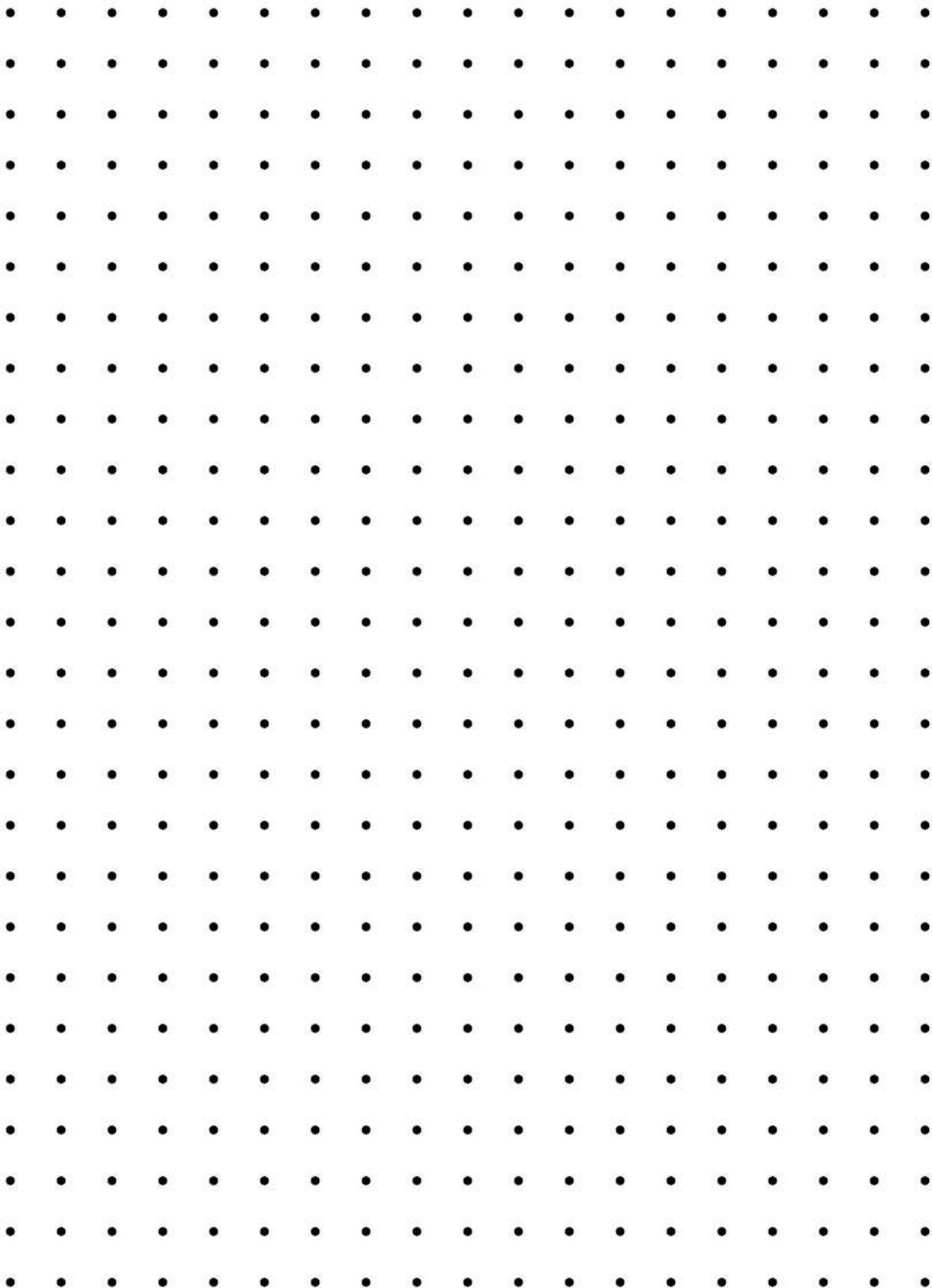
### Task

#### Step 1:

The perfboard is an 18x24 grid of holes. Mark off 18x24 squares on graph paper and create a line-based design aligned to the squares.

#### Step 2:

Cut connectors off network cable and pull out the wire. Cut to size and trim the ends to recreate your design in wire with the perfboard. Solder the ends of your various wires to the perfboard.



## References

<https://incompetech.com/graphpaper>



[https://www.amazon.com/HiLetgo-Finished-Prototype-Circuit-Breadboard/dp/B07BPY8KJG/ref=sr\\_1\\_6?ie=UTF8&qid=1544588325&sr=8-6&keywords=5x7cm+prototype+board](https://www.amazon.com/HiLetgo-Finished-Prototype-Circuit-Breadboard/dp/B07BPY8KJG/ref=sr_1_6?ie=UTF8&qid=1544588325&sr=8-6&keywords=5x7cm+prototype+board)

[https://www.amazon.com/AmazonBasics-One-Port-USB-Wall-Charger/dp/B0773JFWDC/ref=sr\\_1\\_3\\_acs\\_sk\\_pb\\_1\\_sl\\_1?ie=UTF8&qid=1544588356&sr=8-3-ac&keywords=usb+adapter](https://www.amazon.com/AmazonBasics-One-Port-USB-Wall-Charger/dp/B0773JFWDC/ref=sr_1_3_acs_sk_pb_1_sl_1?ie=UTF8&qid=1544588356&sr=8-3-ac&keywords=usb+adapter)

[https://www.amazon.com/Ethernet-Cable-Meters-Network-Internet/dp/B00GBBSNMY/ref=sr\\_1\\_10?s=pc&ie=UTF8&qid=1544588433&sr=1-10&keywords=network+cable&refinements=p\\_n\\_feature\\_keywords\\_five\\_browse-bin%3A7800924011](https://www.amazon.com/Ethernet-Cable-Meters-Network-Internet/dp/B00GBBSNMY/ref=sr_1_10?s=pc&ie=UTF8&qid=1544588433&sr=1-10&keywords=network+cable&refinements=p_n_feature_keywords_five_browse-bin%3A7800924011)

[https://www.aliexpress.com/item/Soldering-Iron-Mini-USB-Electric-Portable-Soldering-Gun-with-LED-Indicator-Hot-Iron-Welding-High-Quality/32712238304.html?spm=2114.search0104.3.8.5c7415d9eNdMHh&ws\\_ab\\_test=searchweb0\\_0,searchweb201602\\_1\\_10065\\_10068\\_10130\\_10890\\_10547\\_319\\_10546\\_317\\_10548\\_5730311\\_10545\\_10696\\_453\\_10084\\_454\\_10083\\_572\\_9211\\_10618\\_10307\\_538\\_537\\_536\\_10059\\_10884\\_10887\\_100031\\_321\\_322\\_10103\\_5735411,searchweb201603\\_51,ppcSwitch\\_0&algo\\_expid=7f5efeab-d44e-4c6e-b6a4-9a740f863f99-1&algo\\_pvid=7f5efeab-d44e-4c6e-b6a4-9a740f863f99](https://www.aliexpress.com/item/Soldering-Iron-Mini-USB-Electric-Portable-Soldering-Gun-with-LED-Indicator-Hot-Iron-Welding-High-Quality/32712238304.html?spm=2114.search0104.3.8.5c7415d9eNdMHh&ws_ab_test=searchweb0_0,searchweb201602_1_10065_10068_10130_10890_10547_319_10546_317_10548_5730311_10545_10696_453_10084_454_10083_572_9211_10618_10307_538_537_536_10059_10884_10887_100031_321_322_10103_5735411,searchweb201603_51,ppcSwitch_0&algo_expid=7f5efeab-d44e-4c6e-b6a4-9a740f863f99-1&algo_pvid=7f5efeab-d44e-4c6e-b6a4-9a740f863f99)

[https://www.amazon.com/WYCTIN-Solder-Electrical-Soldering-0-11lbs/dp/B071G1J3W6/ref=sr\\_1\\_3?ie=UTF8&qid=1544588613&sr=8-3&keywords=rosin+core+solder](https://www.amazon.com/WYCTIN-Solder-Electrical-Soldering-0-11lbs/dp/B071G1J3W6/ref=sr_1_3?ie=UTF8&qid=1544588613&sr=8-3&keywords=rosin+core+solder)