Recommended Soldering Kit

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1. **Soldering Iron**
   - **(Economical)** - http://www.radioshack.com/product/index.jsp?productId=2062728, 15-Watt Soldering Iron with Grounded Tip, **$12.99**, works GREAT for electronics, such as soldering headers to stuff for Arduino. This is a good beginner iron. I used one for a long time; worked nicely!
     - While you're in the store, buy an extra tip for this iron too, and be sure to use a dry brass cleaning sponge to prolong tip life.
   - **(A little nicer)** - https://www.adafruit.com/products/180 - Adjustable 30W 110V soldering iron, **$22**. Great beginner iron.
   - **(Very nice)** - Digital Genuine Hakko FX-888D (936 upgrade) – I have one of these, and I love it!
     - **$110 here** - https://www.adafruit.com/product/1204
     - **$92** with FREE CHP170 flush cutters, here - http://www.amazon.com/Digital-FX888D-CHP170-bundle-cutter/dp/B00AWUFVY8

2. **Soldering Stand**
   - Note: these stands come with a sponge meant to be used wet, with water, to clean your soldering iron tip. However, to prolong tip life, use the dry brass sponge (listed below) to clean your iron's tip instead.
   - Examples:
     - http://www.radioshack.com/product/index.jsp?productId=2062740, **$10** - Soldering Iron Holder and Cleaner. I have this one; works great!
     - Or on Hobbyking - http://www.hobbyking.com/hobbyking/store/__21262__Soldering_Iron_Stand_with_Sponge.html, **$3.18 w/$5** shipping or so.

3. **Brass Sponge**
   - The brass sponge does NOT require water to clean the tip, thereby minimizing tip heating/cooling cycles (thermal stress), and prolonging tip life. Get one for sure.
     - Ebay search for "soldering iron tip cleaner", with "Buy It Now" filter selected, and sorted by price - http://www.ebay.com/sch/i.html?_sacat=0&_from=R40&LH_BIN=1&_nkw=soldering+iron+tip+cleaner&_sop=15 – find a brass sponge here for as little as **$3.61** w/FREE shipping. I have one; works great!

4. **Solder**
   - http://www.radioshack.com/product/index.jsp?productId=2062715 – Rosin core, 60/40, 0.032" diameter, **$13.09**, BUY 1.
     - WARNING: the 60/40 means 60% Lead/40% Tin. If you are pregnant or nursing, I recommend you use lead-free solder instead, which is a little more expensive and a touch harder to use.

5. **Helping Hands**
   - http://www.harborfreight.com/helping-hands-60501.html, **$3** each – **BUY 2**, you'll need them.

6. **Desoldering Tools** (also available at Radio Shack, Amazon, Adafruit.com, etc)
   - Sometimes you make mistakes. This is how you undo them.
   - Ebay search for "solder vacuum" - http://www.ebay.com/sch/i.html?_sacat=0&_from=R40&LH_BIN=1&_nkw=solder+vacuum&_sop=15 – I got one for just under **$3** here (w/FREE shipping) and it works great!
   - Ebay search for "desolder braid" - http://www.ebay.com/sch/i.html?_sacat=0&_from=R40&LH_BIN=1&_nkw=desolder+braid&_sop=15 – I got some 2mm wide stuff from Radio Shack that works fine, but it's here on Ebay for < **$1.**

7. **Extras**
   - **You'll also need a few basic tools like pliers, wire cutters, wire strippers, etc.**
   - If you are looking for a really nice set of automatic wire strippers, I *highly* recommend these:
     - Irwin Industrial Tools 2078300 8-Inch Self-Adjusting Wire Stripper with ProTouch Grips, **$20**, - http://www.amazon.com/Irwin-Industrial-Tools-2078300-Self-Adjusting/dp/B000OQ21CA
   - For a nice, economical set of flush cutters, I recommend these:
     - http://www.amazon.com/gp/product/B00FZPDG1K - Hakko CHP-170 Micro Clean Cutter, 16 Gauge Maximum Cutting Capacity, **$4.37**
   - Multimeter: great for any electronics work –
     - **(nice one)** - http://www.amazon.com/gp/product/B000J40T3U, Sinometer Auto-Ranging Digital Multimeter, MY68, **$30**; I have this one; works great!
     - **(ultra economical)** - http://www.harborfreight.com/catalogsearch/result?q=multimeter - 7 Function Digital Multimeter from Harbor Freight – often-times available for < **$5**, or even for FREE at times, with coupons from the mail or in-store. For being $5, these things work great. I have several of them. However, they are not as reliable as the nicer $30 meter above.