Aviation Technologies: Student Tool Kits

REQUIRED BASIC KIT:

1. Tool Box (back pack, handheld or roll around are adequate)
2. Flash light
3. Safety glasses or goggles
4. Ear plugs (can be disposable) or ear muffs
5. 10x magnifying glass
6. Inspection mirror
7. Dial caliper (6inch) digital is ok
8. Fine tip sharpie
9. Screwdriver set (12 to 28-piece set)
10. Offset screwdrivers (usually come in the bigger sets)
11. 6-inch steel rule (decimal chart on back is helpful)
12. Pliers set (needle nose, slip joint, duck bill, diagonal, channel lock)
13. Snap ring pliers
14. Feeler gage set, 25 leaf
15. Socket set 1/4-inch drive, (1/4 thru 9/16) (12-point sockets)
17. Ratchets, ¼ inch drive, 3/8-inch drive, and ½ inch drive
18. Extension set, ¼ inch drive and 3/8-inch drive
19. Universal joint, ¼ inch drive and 3/8-inch drive
20. Rubber dead blow hammer
22. Punch set- Pin Punches, at least 3/32", 1/8", and 5/32 (a brass punch is handy as well)
23. Wrench set, S.A.E. combination (1/4 thru 1 inch)
25. Metal file set (round, flat, and half round)
26. Spark plug socket (7/8 inch with ½ inch drive) (must be deep well to work)
27. Tire air chuck
28. Tire pressure gauge
29. Tire valve core removal tool
30. Center punch (spring loaded is nice)
31. Aviation snip set (3 piece) (left, right, and straight)
32. Hacksaw (fine tooth blade)
33. Scribe
34. Drill bits
   1. #40 - 2 each
   2. #30 - 2 each
   3. #21 - 2 each
   4. #10 – 2 each
35. Drill bits fractional each 32nd of an inch
36. Multi-Meter
37. Wire strippers, small gage (up to #26)
Premade Kit Options:

Low-cost Examples:

Found at harbor freight tools: Good inexpensive kit that provides wrenches, ratchets, sockets, and Allen keys. As well as several extensions and universal joints.

**Advantages:** inexpensive, includes an organized carrying case which promotes tool accountability.

**Disadvantages:** not all inclusive, lower quality, contains some unnecessary tools

Found on Amazon: Good kit that is slightly more expensive, but includes a wider range of hand tools than the Harbor Freight option.

**Advantages:** Inexpensive, includes carrying case, includes a wider range of hand tools, good organization

**Disadvantages:** not all inclusive, lower quality.
Mid-Priced Examples:

Found at sonic tools online

**Advantages:** aviation specific, high quality, only includes necessary tools. Foam inserts for proper tool placements and accountability. Includes tool box.

**Disadvantages:** More expensive, no wheels for easy mobility.

Found at Teng Tools online

**Advantages:** Low cost with high quality. Includes a lot of tools for its compact size. Great mobility, fold out tool box included

**Disadvantages:** not aviation specific, low tool organization, not all inclusive
High-Priced Examples:

**Advantages:** aviation specific, high quality, only includes necessary tools. Foam inserts for proper tool placements and accountability. Includes tool box. Large box that can be grown into. A tool set of this quality and size will likely last a career.

**Disadvantages:** High upfront cost

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**Snap-on Tools**
Snap-On offers a large variety of aviation specific tools. They sell both preassembled kits or assemble custom kits to your spec. Although the cost is high, their quality and warranties are hard to beat. **Snap-on offers a discount program for students enrolled in the Aviation Technologies program.** If you are committed to the field, this might be a good investment for you.
General Tool Information and Frequently Asked Questions:

1. **What about metric tools?**

Contrary to other many other industries, aircraft within the U.S do not typically feature metric fasteners. As a result, metric wrenches, sockets, allen wrenches, etc. are not required in this program.

2. **Where should I purchase my tools?**

This question primarily depends on your career plans and budget. If you are fully committed to a career in aviation maintenance we suggest purchasing higher end tools that will become an investment, feature warranties and make your day to day job easier. If you are unsure about what lies ahead or have a small budget, you may wish to purchase inexpensive or second-hand tools, etc. These are more than adequate for our training environment. You can always upgrade later if you decide.

3. **I'm unsure what this tool is or how to find one. Who do I ask?**

If you have any questions regarding items on the list, don’t hesitate to reach out to your academic advisor. They can put you in contact with an instructor who can answer your question.

4. **How do I take advantage of the Snap-on discount program?**

Speak with your instructors during your first semester. They can provide you with contact information. Alternatively, you can search Snap-on student discount program online for more information.

**RECOMMENDED TOOL RESOURCES:**

- **MAC TOOLS** ([www.mactools.com/](http://www.mactools.com/))
- **HARBOR FREIGHT** ([www.harborfreight.com/](http://www.harborfreight.com/))
- **SNAP-ON TOOLS** ([www.snapon.com/](http://www.snapon.com/))
- **CORNWELL TOOLS** ([www.cornwelltools.com/](http://www.cornwelltools.com/))