

## CSA goodie bag

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### What's needed for most CSA duties?

- Back pack, durable with proper padding, suggest a day pack from reputable manufacturer.
  - optional
- Laptop - Mac or "Wintel" - Running Windows 10, should be booted and ready to go at a moment's notice. - optional
- USB flash drive – Required – prefer read only lockable, fill with software stored in the Google Drive link below.
  - Recommended Flash Drive
    - [https://www.amazon.com/gp/product/B00JJIEE4M/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B00JJIEE4M/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
  - CSA Software Google Drive:  
<https://drive.google.com/open?id=0B2HKW3Zk3KIRLUhpWWxWRUzbHc>
  - Optional - CSA Resources Repo: [https://github.com/firstmnscsa/csa\\_resources](https://github.com/firstmnscsa/csa_resources)
    - git clone [https://github.com/firstmnscsa/csa\\_resources](https://github.com/firstmnscsa/csa_resources)
    - or [https://github.com/firstmnscsa/csa\\_resources/archive/master.zip](https://github.com/firstmnscsa/csa_resources/archive/master.zip)
      - Ensure you unzip the archive onto the USB flash drive if needed.
- Required Software on the flash drive, included in Google Drive link above
  - Documented in [csa\\_file\\_reference/Reference Materials/csa\\_file\\_reference.pdf](#) as well.
  - Current versions of items below, included in GitHub repo

- Driver's station software
- Eclipse with C++ and Java development environments installed.
  - Ensure you can compile and deploy robot code from this environment.
- Most recent supported version of Java JDK
- Smart Dashboard
- NI suite, should be installed as part of Driver's station, but called out for clarity
- CTRE tool suite - most recent version, installed and confirmed working with compiled code deployed from this laptop.
- If using a Mac, highly advisable to run windows boot camp inside VMWare Fusion or Parallels. This allows for hot swapping of thunderbolt Ethernet, can also assign USB Ethernet dongle to Windows directly.
  - Ensure you change network interface used in Network settings of Fusion config for boot camp, I assume similar config for Parallels.
- C++ tool suite
  - Ensure you install the correct one for your OS.

- Hardware needed
  - Ethernet, either built in or USB / Thunderbolt – required if you bring a laptop.
    - USB C or USB 3 ports for Ethernet connectivity.
    - If using a pre USB C equipped MBP and NOT using Fusion or Parallels, you MUST boot the MBP with the thunderbolt dongle connected for windows to see it. Thunderbolt hot swapping is NOT supported by windows.
    - For all other laptops without a built in Ethernet, including USB C equipped MBs and MBPs, ensure your USB Ethernet works and does not drain CPU resources from your laptop. Confirm by testing your team's robot using your laptop and Ethernet dongle.
  - Recommended Ethernet dongles w/ extra USB ports - optional
    - USB C w/ USB 3 ports - [https://www.amazon.com/Anker-Aluminum-Portable-Ethernet-ChromeBook/dp/B00XU6PM68/ref=sr\\_1\\_3?ie=UTF8&qid=1508222907&sr=8-3&keywords=usb+c+ethernet+anker](https://www.amazon.com/Anker-Aluminum-Portable-Ethernet-ChromeBook/dp/B00XU6PM68/ref=sr_1_3?ie=UTF8&qid=1508222907&sr=8-3&keywords=usb+c+ethernet+anker)
    - USB 3 dongle w/ USB 3 ports - [https://www.amazon.com/gp/product/B00PC07T02/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B00PC07T02/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
  - Alternative Ethernet dongles w/o extra USB ports - optional
    - USB C dongle - [https://www.amazon.com/gp/product/B014FBQ738/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B014FBQ738/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
    - USB 3 dongle - [https://www.amazon.com/Anker-Portable-Aluminum-Ethernet-Supporting/dp/B00PC0H9IE/ref=pd\\_sim\\_147\\_2?encoding=UTF8&pd\\_rd\\_i=B00PC](https://www.amazon.com/Anker-Portable-Aluminum-Ethernet-Supporting/dp/B00PC0H9IE/ref=pd_sim_147_2?encoding=UTF8&pd_rd_i=B00PC)

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- USB C to USB 3 adaptor, needed for USB C equipped MBP - optional
- 2 x USB C to USB 3 4ports - [https://www.amazon.com/Anker-Aluminum-Portable-Macbook-Devices/dp/B00XU6IMWY/ref=sr\\_1\\_4?ie=UTF8&qid=1508222775&sr=8-4&keywords=usb+c+to+usb+3+anker](https://www.amazon.com/Anker-Aluminum-Portable-Macbook-Devices/dp/B00XU6IMWY/ref=sr_1_4?ie=UTF8&qid=1508222775&sr=8-4&keywords=usb+c+to+usb+3+anker)

- USB Cables
  - Recommended
    - 2 x 16 Ft USB A to B -  
[https://www.amazon.com/gp/product/B00BCWALHM/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B00BCWALHM/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
    - Extra - depends on needs rank in order of usefulness.
      - 1 x 30 Ft USB A to B -  
[https://www.amazon.com/gp/product/B007582ZJY/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B007582ZJY/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
      - 1 x USB 3 extension -  
[https://www.amazon.com/gp/product/B00NH12O5I/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B00NH12O5I/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
      - 1 x USB A to USB micro pack -  
[https://www.amazon.com/gp/product/B015XPQ5KK/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B015XPQ5KK/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
      - 1 x USB 3 to USB C -  
[https://www.amazon.com/gp/product/B01E9W8KYC/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B01E9W8KYC/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
- Flashlight – optional, but highly recommended
  - 1 x Pelican 7100 -  
[https://www.amazon.com/gp/product/B01LARC86A/ref=oh\\_aui\\_search\\_detailpage?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B01LARC86A/ref=oh_aui_search_detailpage?ie=UTF8&psc=1)
- Mini screwdriver set - optional

- 1 x 6 piece set - 6pc Premium-Quality Micro Precision Screwdriver Set CRV  
Eyeglasses Watches Electronics Aluminum Handle
- CTRE Battery Beak - optional
  - Used to check status / health of batteries.
  - <https://www.ctr-electronics.com/battery-beak.html>
- Smartphone - required
  - Trello app - connected to the board for the event
  - slack app – member of csa slack group.
- Apple / smart watch - optional
  - If using smart phone and trello, notices appear on watch, super handy.
- Water bottle – optional, highly recommended
  - Ensure it is empty and dry or can't leak before working with teams. No one wants a wet robot.
  - Drink water often
- Spare USB flashdrive you can afford to lose - optional
  - No specific reason but might come in handy. Ensure you format after each team use, no virus spreading.