

Below is a collection of most of the OTS parts considered/purchased for the Medical Robotics class Heart Printer Project.

[https://www.amazon.com/Multi-Colour-Management-Adjustable-Fastening-Multi-Purpose/dp/B0CGWRZ99M/ref=sr\\_1\\_14?crid=2XM68D32WOUER&dib=eyJ2IjoiMSJ9.ROLHComHuliHRkLnk5RL\\_45w19l9hLwPP20EnPiid3CBlr1m589aXDXFEb5nSAoJuQ\\_8dZE-2DLVBMSI3ussw8BhrATKgrUN8wMFGyTTfVnky8iSHzWaHbd5jFmlNVZZdV6LdkHMCMGQNBAAltU7ULzSqQb40IVZ4aHrBG1VxBGQAhAc13kRhNEvVPSgOmSmM6NhL4jJ9S0EjDKjSDz\\_nb6nQeIU\\_V2KUCEPfd70\\_y58LKGKwvt\\_-ritJ8m-2koyw1zeAZ62xJnuep884Y40&dib\\_tag=se&keywords=velcro%2Bcable%2Bmanagement&qid=1762629148&sprefix=velcro%2Bcable%2Bmanagement%2Caps%2C127&sr=8-14&th=1](https://www.amazon.com/Multi-Colour-Management-Adjustable-Fastening-Multi-Purpose/dp/B0CGWRZ99M/ref=sr_1_14?crid=2XM68D32WOUER&dib=eyJ2IjoiMSJ9.ROLHComHuliHRkLnk5RL_45w19l9hLwPP20EnPiid3CBlr1m589aXDXFEb5nSAoJuQ_8dZE-2DLVBMSI3ussw8BhrATKgrUN8wMFGyTTfVnky8iSHzWaHbd5jFmlNVZZdV6LdkHMCMGQNBAAltU7ULzSqQb40IVZ4aHrBG1VxBGQAhAc13kRhNEvVPSgOmSmM6NhL4jJ9S0EjDKjSDz_nb6nQeIU_V2KUCEPfd70_y58LKGKwvt_-ritJ8m-2koyw1zeAZ62xJnuep884Y40&dib_tag=se&keywords=velcro%2Bcable%2Bmanagement&qid=1762629148&sprefix=velcro%2Bcable%2Bmanagement%2Caps%2C127&sr=8-14&th=1)

[https://www.amazon.com/s?k=strong+velcro+with+adhesive+backing&crid=3AFCK7M2PTVCT&sprefix=strong+velcro+with+%2Caps%2C121&ref=nb\\_sb\\_ss\\_p13n-expert-pd-ops-ranker\\_2\\_19](https://www.amazon.com/s?k=strong+velcro+with+adhesive+backing&crid=3AFCK7M2PTVCT&sprefix=strong+velcro+with+%2Caps%2C121&ref=nb_sb_ss_p13n-expert-pd-ops-ranker_2_19)

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[https://www.amazon.com/Xadnitu-Clamping-Tightening-Replacing-Umbrella/dp/B0D8SBM9K8/ref=sr\\_1\\_6?crid=35VL0YF71M8W7&dib=eyJ2IjoiMSJ9.LixaOZmYMQ5RZDApqwuqy9G728\\_eWxdiBJIO1kpRbJWJXK\\_jzh1xqum5V03XiHJ3IkIwMq4qVNTQHH68IDoapZOtC7s5fw32KFWaAtIDoGo27SffbAWAQWWiHyIkHdBhGaHj7jHLCzt9kQ7y2yvWnHZSrG-JfvRLg1IdYVPwXuCTzzGedRsLgmXvK6CCZCT78QOAIdYrbdyiLdIOFRb9h2XG-UFblrxLDYoHIGcsBRo.Zz QUJSmpuckPQldn1FoA3aJGtjLtYvMVxy9k8tfEI&dib\\_tag=se&keywords=1%2F4%2Bscrew%2Bknob&qid=1761941734&sprefix=1%2F4%2Bscrew%2Bknob%2Caps%2C113&sr=8-6&th=1](https://www.amazon.com/Xadnitu-Clamping-Tightening-Replacing-Umbrella/dp/B0D8SBM9K8/ref=sr_1_6?crid=35VL0YF71M8W7&dib=eyJ2IjoiMSJ9.LixaOZmYMQ5RZDApqwuqy9G728_eWxdiBJIO1kpRbJWJXK_jzh1xqum5V03XiHJ3IkIwMq4qVNTQHH68IDoapZOtC7s5fw32KFWaAtIDoGo27SffbAWAQWWiHyIkHdBhGaHj7jHLCzt9kQ7y2yvWnHZSrG-JfvRLg1IdYVPwXuCTzzGedRsLgmXvK6CCZCT78QOAIdYrbdyiLdIOFRb9h2XG-UFblrxLDYoHIGcsBRo.Zz QUJSmpuckPQldn1FoA3aJGtjLtYvMVxy9k8tfEI&dib_tag=se&keywords=1%2F4%2Bscrew%2Bknob&qid=1761941734&sprefix=1%2F4%2Bscrew%2Bknob%2Caps%2C113&sr=8-6&th=1)

[https://www.amazon.com/gp/product/B0BD22TS6M/ref=ewc\\_pr\\_img\\_1?th=1](https://www.amazon.com/gp/product/B0BD22TS6M/ref=ewc_pr_img_1?th=1) 4

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Screws:

[https://www.amazon.com/gp/product/B0CLRRQ1QW/ref=ox\\_sc\\_act\\_title\\_1?smid=AU4U01987UNZX&psc=1](https://www.amazon.com/gp/product/B0CLRRQ1QW/ref=ox_sc_act_title_1?smid=AU4U01987UNZX&psc=1)

Nuts

[amazon.com/gp/product/B0CPHW89YP/ref=ox\\_sc\\_act\\_title\\_1?smid=A228O47D056BQL&psc=1](amazon.com/gp/product/B0CPHW89YP/ref=ox_sc_act_title_1?smid=A228O47D056BQL&psc=1)

**Standoffs: most important**

[amazon.com/gp/product/B0DZWM2KDS/ref=ox\\_sc\\_act\\_title\\_3?smid=AF9CPILGHOMP&psc=1](amazon.com/gp/product/B0DZWM2KDS/ref=ox_sc_act_title_3?smid=AF9CPILGHOMP&psc=1)

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Pulley shafts

Pulleys

Shaft collars

4-40 x 1" screws

4-40 nuts

## Purchase options

### “Funnel” platform

- Option 1: **Shelves (16" depth) final decision**
  - Plan :
    - Confirm dimensions of computer box
    - draft top of cylindrical joints for easy on and off assembly
  - Pro:
    - Compact patient side
  - Con:
    - Bulky
- Shelves (20") depth**
- Option 2: **Over patient table**
  - Plan:
    - Mod actual table platform to fit funnel devices
  - Pro:
    - Smaller more compact
  - Con:
    - Will have to have a bedside option for controls/computer anyways
- Option 3: **Medical bedside table**
  - Plan:
    - Take measurements and do something like option 1
  - Pro:
    - Can be rolled off the patient's side
    - Make a custom bottom adaptor for the box
  - Con:
    - Disassembly might be a task
- Option 4: **Swivel bed side tabel**
  - Plan:
    - Implement this on Option 1
    - Drill hole through top shelf and bottom shelf. Will confirm that this length is enough to balance the extended plate ( avoiding fixation screw/adhesive will help disassembly)
    - Leave top shelf for computer mount, bottom shelf for “box” , bottom shelf - other
  - Pro:
    - close to patient and compact assembly
  - Con:
    - this specific link is super overkill, we just need the central shaft, locking collar , and swiveling table top
    - need to confirm: balance, over patient setup won't tilt.

### “Funnel” Cable Tension sensor

- [RMGZ200 – Compact force sensor for stranding machines with low wire tension](#)
  - Pro: smaller
  - Con: price tbd, specs might be too robust
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