

| pic label | ID code | Name | count | Primary Link | Second link | Model / Part # (mcmaster carr) | Description / notes |
|-----------|---------|---|-------|-----------------------|--------------------------|--------------------------------|--|
| 01 | MC-WNT | wire nuts | 2 | link | | 8904T3 | Lever connectors are better, orange wire nuts (video) will also work |
| 02 | SP-TB4 | 4mm x 6mm vinyl tubing (1/8") | | link | | | or 1/8 inch |
| 03 | RX-PMP | circulating pump | 2 | link | link2 | | Mini pump (first link) may not withstand being submerged in 100C water. The 5A pump in link 2 is almost certainly overkill, but should withstand high heat and is self-priming. Power supply connector here . Power supply here . We may want smaller pumps that can run at fewer amps (screw terminals seem to max out at 12V 5A, which is only half of what two of the larger pumps require. |
| 04 | RX-TMP | thermistor | 1 | link | | | |
| 05 | RX-TMPD | USB dongle for thermistor | 1 | link | | | |
| 06 | SP-SLD | syringe slides | 4 | link | | | |
| 06A | SP-DRV | M5 threaded drive rod | 2 | link | | | appropedia calls for 200mm, thread pitch not specified |
| 07 | RX-MXM | mixing motor | 1 | - | | | |
| 08 | RX-PDL | mixing paddle | 1 | link1 | link2 | | Mixing paddle needs to be coated. Stainless steel may react. |
| 09 | RX-TB5 | tubing 5-6mm x 8mm (1/4") | 1 | link | | | pump outlet |
| 09B | RX-TB8 | tubing 8mm x 12mm | | link | | | pump inlet |
| 09C | RX-RED | Reducing fitting | | | | | might be needed |
| 10 | RX-TEE | barbed tee fittings for 6mm tubing | 2 | link | | 2429K55 | |
| 11 | MC-SCR | touch screen | 1 | link | | | screen is to a raspberry pi 4 |
| 12 | MC-RLY | relay hat | 1 | link | | | |
| 13 | MC-RPI | raspberry pi | 1 | link | | | Primary link is to a 4 - 3b+'s seem hard to come by |
| 14 | MC-SD32 | micro SD card, 32GB | 1 | link | | | 32GB |
| 15 | MC-MDR | motor drivers for CNC hat | 4 | link | | | Link includes UNO and 4988 |
| 16 | MC-CNC | arduino CNC hat | 1 | link | | | |
| 17 | MC-UNO | arduino UNO | 1 | link | | | |
| 18 | SP-TAB | plunger holder tab (Linear Actuator V0 7) | 2 | link | | | |
| 19 | SP-BDY | body holder (Linear Actuator V0 5) | 2 | link | | | |
| 20 | SP-PGR | plunger holder base (Linear Actuator V0 7) | 2 | link | | | |
| 21 | SP-END | motor end (Linear Actuator V0 1) | 2 | link | | | |
| 22 | SP-CAR | carriage (Linear Actuator V0 4) | 2 | link | | | |
| 23 | SP-IDL | idler end (Linear Actuator V0 2) | 2 | link | | | |
| 24 | RX-LID | reactor manifold assembly | 1 | printed | | | |
| 25 | SP-MTR | stepper motors | 2 | link | link | 6627T91 | |
| 26 | SP-M310 | M3x10mm screw | | link | | | Amazon assortment contains all needed sizes and wrench |
| | SP-M320 | M3x20mm screw | | | | | |
| | SP-M340 | M3x40mm screw | | | | | |
| | SP-M3N | M3 nut | | | | | |
| 26A | SP-M5B | 625Z Ball Bearing (5mm x 16mm x 5mm) | 2 | link | | 6153K15 | |
| 27 | RX-COR | 4/6 oz mason jar for core chamber | 1 | link | 6oz link | | |
| 28 | MC-A2B | USB A/B cable for rPi to Arduino | 1 | link | | | |
| 29 | SP-SYR | syringes | 2 | link | | | 25mL luer slip tip in video, 20 or 30mL are standard sizes. luer lock will also work |
| 30 | | hex wrench for syringe pump, M3 | 1 | | | | |
| 31 | RX-OUT | 1qt wide mouth mason jar for outer jacket | 1 | link | | | |
| | MC-GFCI | 15 Amp GFCI Outlet Adapter | | link | | | Safety precaution since relays have 120v mains |
| | MC-WIRE | 18 gauge wire for power supply | 1 | link | | | |
| | | | | | | | |
| | | try mcmaster carr - include part numbers from catalog | | | | | |