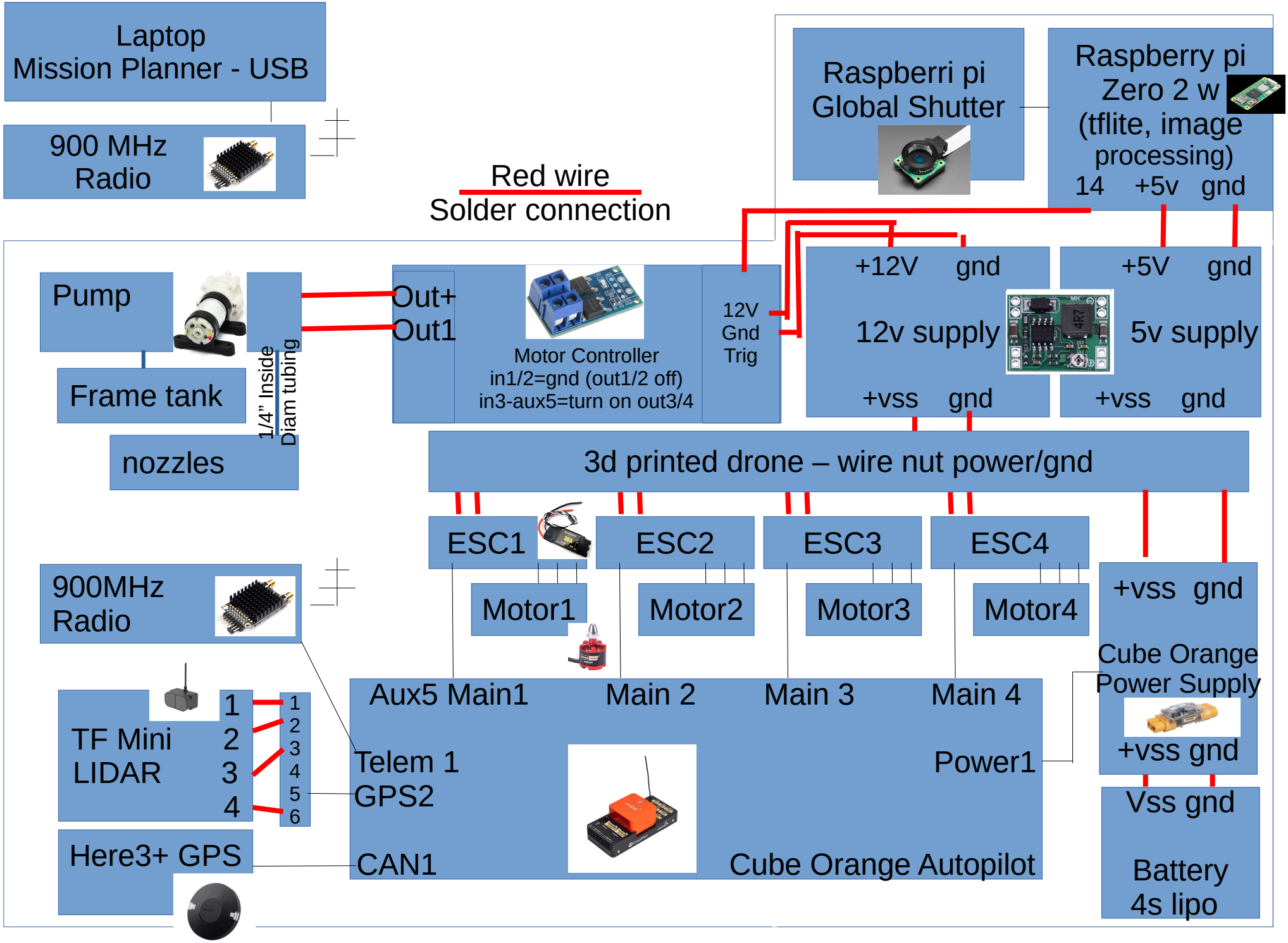
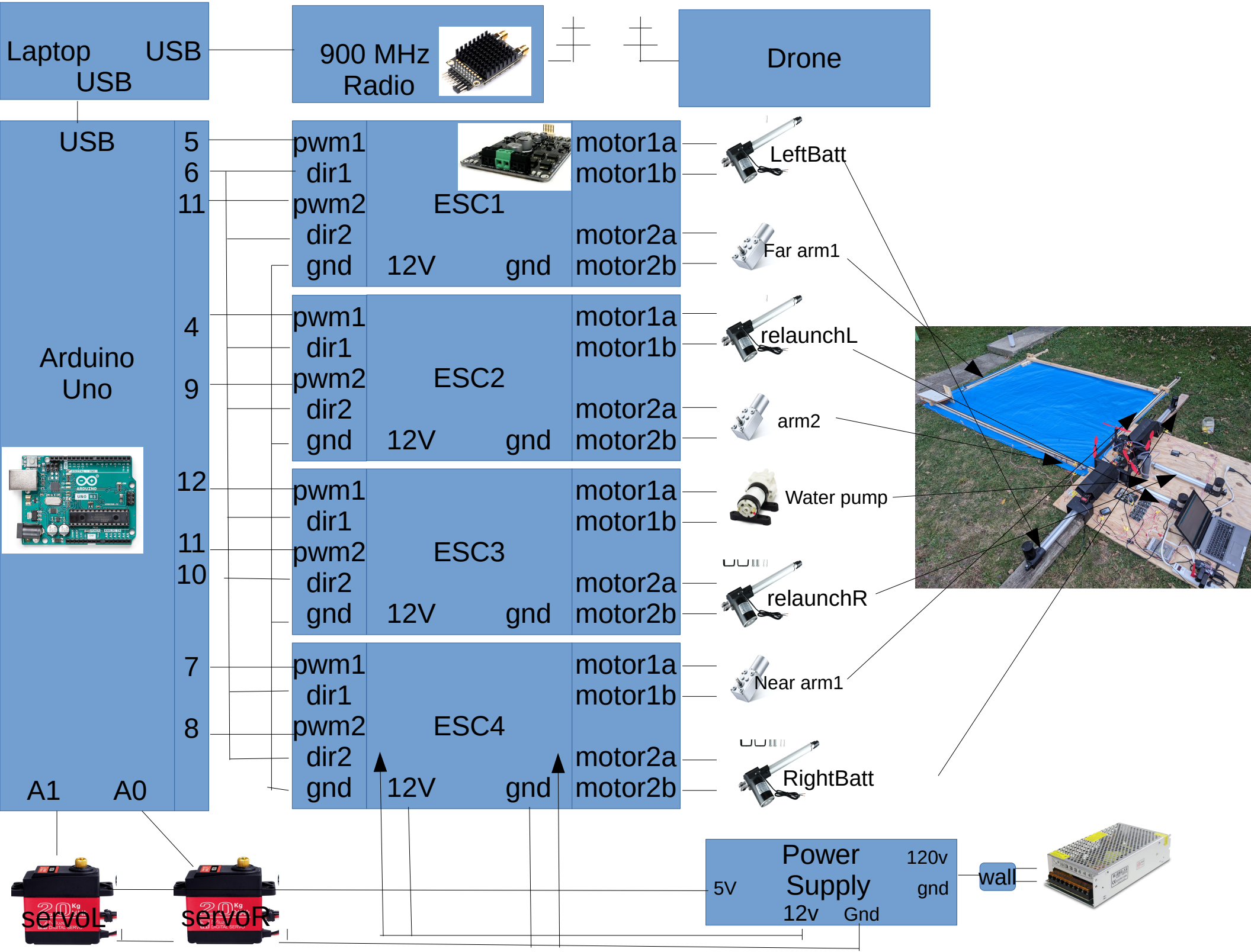
Parts List

Drone
PLA or PETG for printing
4 30A ESC - $40 (https://www.amazon.com/gp/product/B075DD16LK/)
4 920kV drone motors - $40 (https://www.amazon.com/gp/product/B09G5WFXSV)
12 pair drone props - $14
1 cube orange, 1 here 3+ GPS, 1 900MHz radio - $679 (https://irlock.com/collections/combos/products/combo-cube-orange-w-here3-rfd900x-telemetry-set)
1 tf-mini - $50 (https://irlock.com/collections/rangefinders/products/tfmini-plus-lidar-rangefinder-12m?variant=15818853810227)
adhesive velcro - $5
6 Battery 4s lipo - https://www.amazon.com/gp/product/B07Y1Q2629c
2 packs – 4s balance charge cables https://www.amazon.com/gp/product/B07Q29TG24
2 DC to DC converter (to 5 and 12 V) - https://www.amazon.com/gp/product/B01MQGMOKI/
1 raspberry pi zero 2 w - https://www.adafruit.com/product/5291
1 micro sd for raspberry pi - https://www.amazon.com/gp/product/B07YXJM282
1 pump - https://www.amazon.com/gp/product/B0744FWNFR
1 pump motor controller - https://www.amazon.com/gp/product/B07NWD8W26
2 sprayer nozzles - https://www.amazon.com/gp/product/B07NZTDYBP
Sprayer nozzle hose - https://www.amazon.com/gp/product/B0007WJIJU
Pump hose - https://www.amazon.com/EZ-FLO-98560-Clear-Vinyl-Tubing/dp/B08SPBSCHX
1 global shutter camera - https://www.adafruit.com/product/5702
1 global shutter camera lens - https://www.adafruit.com/product/4563
1 camera extension cable - https://www.adafruit.com/product/5211

Parts List

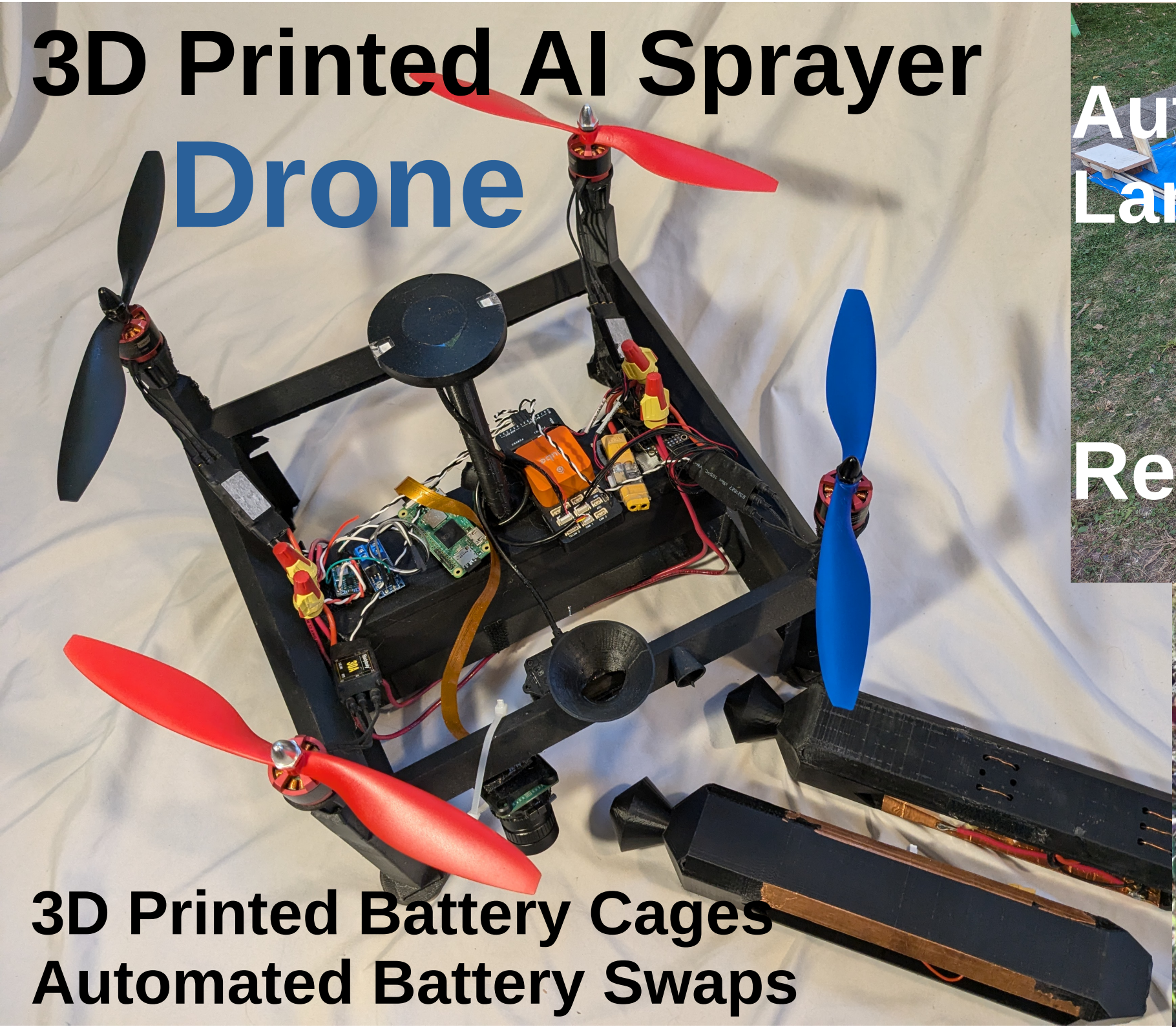
Landing Pad
4 16" linear actuator - (https://www.amazon.com/gp/product/B0765KZ3TJ)
6 4s lipo charger - $15 (https://www.amazon.com/gp/product/B07ZD6PZWN)
1 roll thick copper tape - $17 (https://www.amazon.com/gp/product/B091B89BBF)
4 10A Cytron dual motor controller - $96 (https://www.amazon.com/gp/product/B07CW34YRB)
1 Arduino Uno - $29
(https://www.amazon.com/Arduino-A000066-ARDUINO-UNO-R3/dp/B008GRTSV6)
1 12V 5V power supply - https://www.amazon.com/gp/product/B07X1LBK19
2 servo motors - https://www.amazon.com/gp/product/B07HNTKSZT
1 laptop (not included in price - use one you have)
1 power strip - $5
4 #25 chain, 10ft each - https://www.amazon.com/gp/product/B07NPS78VG
1 #25 chain break tool - https://www.amazon.com/gp/product/B06XQDXW78
2 2 packs (4 total) rollers - https://www.amazon.com/gp/product/B0CCW35QMN/
3 D axle sprockets - https://www.amazon.com/gp/product/B09QSMTFW7
2x2’s, screws, plywood for base/arms

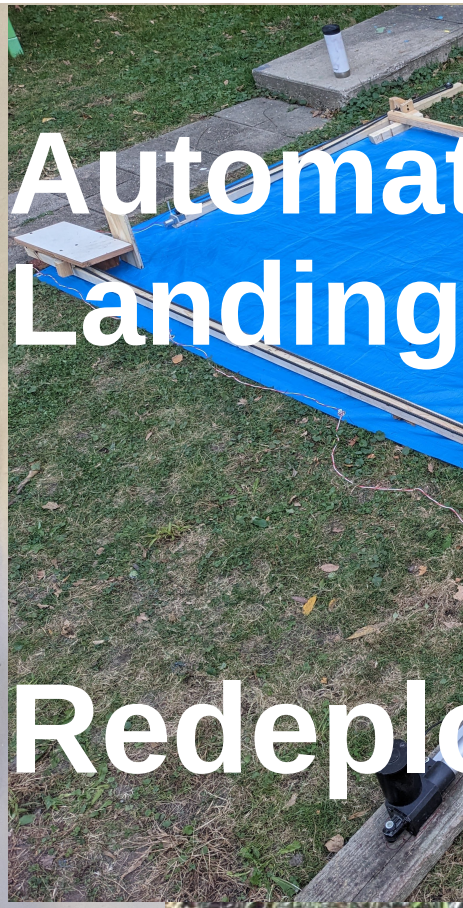

Laptop
Mission Planner - USB
900 MHz
Radio
Red wire
Solder connection
Raspberri pi
Global Shutter
Raspberry pi
Zero 2 w
(tflite, image
processing)
14 +5v gnd
Pump
Frame tank
nozzles
1/4" Inside
Diam tubing
Out+
Out1
Motor Controller
in1/2=gnd (out1/2 off)
in3-aux5=turn on out3/4
12V
Gnd
Trig
+12V gnd
12v supply
+vss gnd
+5V gnd
5v supply
+vss gnd
3d printed drone – wire nut power/gnd
ESC1
ESC2
ESC3
ESC4
Motor1
Motor2
Motor3
Motor4
900MHz
Radio
+vss gnd
Cube Orange
Power Supply
+vss gnd
TF Mini
LIDAR
1
2
3
4
1
2
3
4
5
6
Aux5 Main1
Main 2
Main 3
Main 4
Telem 1
GPS2
Power1
Here3+ GPS
CAN1
Cube Orange Autopilot
Vss gnd
Battery
4s lipo


Laptop
USB
USB
900 MHz Radio
Drone
USB
5
6
11
4
9
12
11
10
7
8
Arduino Uno
A1
A0
pwm1
dir1
pwm2
dir2
gnd
ESC1
12V
gnd
motor1a
motor1b
motor2a
motor2b
ESC2
ESC3
ESC4
LeftBatt
Far arm1
relaunchL
arm2
Water pump
relaunchR
Near arm1
RightBatt
servoL
servoR
Power Supply
5V
12v
Gnd
120v
gnd
wall

3D Printed AI Sprayer

Drone





3D Printed Battery Cages
Automated Battery Swaps