

Autocannon Hardware List

First some notes. If building just the prop, you won't need the polycarbonate, main spring, or catch spring. You'll still need some kind of tube in the barrel to make the return spring on the bolt work properly. Flat bars are optional for extra internal strength, but you can build it without. If you do use the flat bars, you'll have to cut to length, and then use the screw holes to make the marks to drill for the screws. Orings are based off specs and not necessarily fully tested, but you can wrap electrical tape around the groove to get a better fit. The links I've provided are only suggestions of where you can find the parts, and not the only option. It's possible to find probably everything you need here for hardware off McMaster, but I'd expect to cry about the shipping costs if you do.

200mm 1.75" od Polycarb tube

https://www.amazon.com/dp/B000OM9JYM?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_4&th=1

45mm OD tube is also an option that will fit inside the blaster, but may require a little adjustment of the internal parts that interact, like the plunger head and bolt carrier. I've included a .STEP file for editing those very parts, though, so for those outside of the USA, this is an available option.

2 500mm 1/8" thick 1/2" wide, flat bars (for bolt carrier, optional)

2 1000mm flat bars (for frame, optional)

2 145-150mm long m5 threaded rods for barrel assembly. This is an optional cosmetic part, which is why the length can be varied.

various m3 screws up to 55mm long. Room for 100mm long screws in mag

I've added a rough count for the lengths and quantity:

8mm x 2

10 x 5

15mm x 12

20mm x 4

25mm x 7

30 x 5

35 x 13

40 x 10

45 x 4

50mm x 15

This kit is a bit pricey, but has everything you need

https://www.amazon.com/dp/B08125LTBT?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_9&th=1

1" silicone flat washer, 20mm id 30 od, for the seal of the shell and barrel

https://www.amazon.com/dp/B0BQ3QP4W6?ref=ppx_pop_dt_b_product_details&th=1

19mm od x 2.5 thickness Oring for the bolt face

2 m5 35mm long screws for bolt handles (metric parts don't use this screw)

14-16" .777id aluminum tube for barrel (choose megaburn)

<https://outofdarts.com/products/replacement-barrel-caliburn-esper-talon-claw-spamf?variant=40036707369002>

3/16 pin for catch assembly

SPRINGS:

7-8mm od for ejector, 5.5-6mm od for catch, 9-10mm od for trigger, 7-8mm od spring for spindle in mag, 9-10mm od for mag shuttle, up to 10mm spring for pawl but weaker.

https://www.amazon.com/dp/B000K7M36W?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_16&th=1

#127 orings and 029 if using tinker plunger head

Plunger padding is a 20mm od silicone rubber insert

https://www.aliexpress.us/item/3256806242954263.html?spm=a2g0o.order_list.order_list_main.4.21ef1802X8Wr91&gatewayAdapt=glo2usa

or

https://www.amazon.com/gp/product/B0CRZCQMBX/ref=ox_sc_saved_image_4?smid=A2I5BIP7ULN7H7&th=1

Various main spring options

k14 (strongest)

https://outofdarts.com/products/k14-spring-with-squared-ends?_pos=34&_sid=ab32323d4&_ss=r

k25 (recommended)

https://outofdarts.com/products/k25-spring-with-squared-ends-better-than-mcmaster?_pos=4&_sid=ab32323d4&_ss=r

RS-21 (BEST SPRING)

<https://spitfireproducts.etsy.com/listing/1742495076>

This one is easier to prime than the k14, but puts out more power. It does require modified parts to fit such a wide spring, which are in the extras folder included in download.

You will also need some kind of 25mm diameter low power spring for the return on the bolt. About 220mm long. <https://www.mcmaster.com/9663K99/> This spring *might* work for this application, but it's untested by me.

METRIC STUFF!! For people outside of the us
Springs:

https://www.blaster-time.eu/shop/foam-focus-k14-universal-spring-full-length-28-cm/?attribute_number-of-springs=1+spring&v=796834e7a283

https://www.blaster-time.eu/shop/foam-focus-k25-universal-spring-full-length-28-cm/?attribute_number-of-springs=1+spring&v=7516fd43adaa

Hardware changes:

Flat bars have been changed in size to fit a 10x4mm bar, 2x 500mm and 2x 1000mm.

PT can be 45mm and up to 41mm inner diameter. You may need to use the included plunger .step files to get the fit exactly right. No idea on orings either, although theoretically metric sizes should work.

BUILD NOTES

First, this is huge and mostly just printing. You can probably get away with not doing a lot of things all that carefully if it's just a prop. I found the easiest way to build was to make large frame assemblies that I would later join up. Specifically a rear receiver (with grip, all the shoulder pieces, and the back parts that hold the toggle linkage, and a barrel assembly with some of the frame around the breech, all of the bolt and barrel stuff. The mag, bolt, and catch are all separate assemblies as well, but the bolt is constrained inside of the front barrel shroud. This isn't actually a terribly complicated blaster, if you have experience with building spring powered nerf guns, but it does have a lot of parts and a lot of places for tolerances to get weird, so it may require a lot of fiddling. The mag is the most complicated part, but I think it's simple enough once you know how it works.