

Bruder A60H Conversion parts list

Chassis

1x Min 3 channel Radio and receiver
1x esc for drive motors
1x esc for dumped actuators
1 x 25kg servo, and a double 60mm arm.
6 x 370 gearmotors for drive(100rpm recommended)
1 x m6 threaded rod, 100mm min.
2 x m 6 allen flat head furniture nuts – see picture of axle mounting
6 x m6 x 20mm bolts and nuts
8 x m3 x 5mm screws
6 x square m3 nuts
6 x m3 x 15mm screws
300mm of heavy fencing wire, or steering rods.
Wiring for motors and connectors etc.

Dumped actuators

2 x 370 motors(100rpm seems best)
2 x t8 lead screws 150mm 8x2mm
2 x t8 brass nuts
2x aluminium, copper or similar tubing 12x10mm
2x flexible motorcouplings 4 to 6/8mm

*You also need a small assortment of short small woodscrews or machine screws and nuts to fix the wheels to the hubs, assemble the frame, fix the actuators and fix the front axle to the Bruder plastic.

Tools

Dremel with rotary cutting wheel – Or other tool to cut away plastic on Bruder model
Drill with drillbits 3-10mm
Files
Heatgun, soldering iron or other heat source.
Box knife
Screwdrivers
Grinder – dremel, angle grinder etc.
Spanner
Pliers

General advice

Screw holes should be predrilled, depending on your choice of screw, and wood screws should be heated before fastening to avoid cracking.

Hubs can be fixed to motor shafts without square nuts by threading a heated 3mm screw through the plastic. Though not as strong as using a nut, it still holds up well.

The swivel joint is fixed to the cab by an m8 wagonbolt and wingnut, but you can adapt this depending on what's available to you.

M6 bolts for wheels should be heated and melted down into the inside rims, before fitting the hub outside.

Spacer bushing for axle should be cut to length, to fit between your flat head socket nuts. Sizes vary so the spacer bushing is slightly oversized. Space between the wheels is tight, so a regular nut will be too big. It is important to have it bolted to keep the axles from «spreading out» once you put weight in the bed.

Front axle will fit a standard servo, and can be screwed straight into the Bruder front carriage.

All parts for this build have been printed at .2 layer height, using full «tree supports»(Cura). Consider the orientation before you print. Parts like the swivel, should be printed in the orientation it will be mounted, for maximum strength.

Depending on your printer's accuracy and parts, you may need to widen some holes etc. Be aware that using power tools for this may generate too much heat, and may warp the part.

We recommend that you clean up all parts before assembly, and grease and remove stickers etc. On motors before fitting them, as they can be tight.

Remember to solder/wire right and left side motors opposite.