

Loco Remote 3D printable track (<https://locoremove.co.uk>) by Chris Rennie is licensed under the Creative Commons - Attribution - Non-Commercial - Share Alike license.
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HUDSON TRACK READ THIS BEFORE STARTING

All parts are designed by Chris Rennie unless otherwise attributed.

This Hudson 3D printable track was designed for very small wheelbase ideally 4 wheel drive locos and wagons. For 32mm gauge the standard curve radius is 174mm (6.9 inches). Other radii are given below. A single straight is 123mm long. At 45mm gauge all lengths, radii, etc are 140% larger.

There are 3 versions to accommodate different filament printer tolerances. Resin printers tend not to be any good for track.

v1 has 5.00mm lugs to fit in the 5.00mm holes - this is the tightest fit for well tuned printers
v2 has 4.90mm lugs to fit in the 5.00mm holes - this is the best fit for many printers (diamond crossings and skip tippers not yet available)
v3 has 4.80mm lugs to fit in the 5.00mm holes - this is the loosest fit which may be needed for some printers (diamond crossings and skip tippers not yet available)

To determine the best fit, put 2 copies of each version of the one third straight on your slicer in turn - don't mix them up! This is the smallest regular piece. You will need supports under each rail as they are 2mm above the print bed. You should not need a brim or raft. Adaptive layer height should help speed up the print time.

Print at 100% (the size they come in) for 32mm gauge and 140% for 45mm gauge. See which pair fit together best. Obviously v1 to v1, v2 to v2 and v3 to v3 - mixing versions is not useful! Then slice and print the other parts you need of the best fit version.

The parts available are:

123mm Single straight
246mm Double straight
41mm One third straight
82mm Two thirds straight
10mm, 11mm, 15mm, 21mm, 30mm, 51mm straights - short pieces for bridging gaps
102mm straight - for use in loops

Diamond crossing single straight
Diamond crossing two thirds straight
Diamond crossing 102mm straight

378mm radius Xtra Large curve 7.5, 15, 30, 45 degrees
276mm radius Large curve 7.5, 15, 30, 45 degrees
225mm radius Medium curve 7.5, 11.25, 22.5, 45, 90 degrees
174mm radius Standard curve 15, 30, 45, 90 degrees
123mm radius Small curve 15, 30, 45, 90 degrees
72mm radius Tiny curve 30, 45, 60, 90, 180 degrees

Left hand 45 standard point (turnout) - equivalent to a single straight and 45 degrees standard curve
Right hand 45 standard point (turnout) - equivalent to a single straight and 45 degrees standard curve

Left hand 30 standard point (turnout) - equivalent to one and a third single straight and 30 degrees standard curve with short straight - for closer sidings

Right hand 30 standard point (turnout) - one and a third single straight and 30 degrees standard curve with short straight - for closer sidings

Y 30 point (turnout) - each arm equivalent to 30 degrees standard curve

Y 45 point (turnout) - each arm equivalent to 45 degrees standard curve

Left hand standard stub point (turnout) - equivalent to a single straight and 45 degrees standard curve, suitable for double flanged wheels

Right hand standard stub point (turnout) - equivalent to a single straight and 45 degrees standard curve, suitable for double flanged wheels

Left hand large point (turnout) - equivalent to one and a third single straight and 30 degrees large curve

Left hand large point joiner - use this between the curved arms of 2 left hand large points to maintain standard track spacing and geometry

Right hand large point (turnout) - equivalent to one and a third single straight and 30 degrees large curve

Right hand large point joiner - use this between the curved arms of 2 right hand large points to maintain standard track spacing and geometry

3 way point (turnout) - equivalent to a left hand and right hand combined

Y point single blade - each arm is at 7.5 degrees

Buffer stop

Skip wagon stop

Wagon turntable - equivalent to a single straight.

Small wagon turntable - equivalent to 2/3 straight - choice 3 or 4 way and of 5 tops.

For standard single flanged wheels with 4 rails: plain rails, metal cover, wooden planks. Print at 0.2mm layer height and by adjusting the orientation you should be able to get the "grain" along all wooden planks.

For double or single flanged wheels with 2 rails: plain rails, diamond pattern cover.

Binnie skip tipper - left and right - cut and bend a wire coathanger to make the tipper and untipper mechanism

Full sleeper and tabbed sleeper you can use if you want to design your own track.

Enjoy!