

Remington 700 Tactical Chassis



Remington 700 Tactical Chassis

Introduction

The Remington 700 Tactical Chassis rifle is essentially a modernized, modular evolution of the classic Remington 700 — keeping everything that made the original famous, but adding the flexibility and ergonomics of contemporary chassis-based precision rifles. It's still a 700 at its core, but the chassis transforms how the rifle handles, how it can be configured, and how it performs under demanding conditions.

This design accepts AR-15 pistol grips and AR-style buttstocks, giving shooters a familiar, customizable, modular platform without losing the proven accuracy and reliability of the original rifle.

Why This Model Was Created

At Duplex Designs we mostly create sci-fi weaponry but after looking into recreating the sniper rifles from Ghost In The Shell 2017 we found that these were based on the Remington 700 Tactical Chassis rifle.

The more we looked at this rifle the more we liked it so the decision was made to model the Remington 700 first then decide later whether to continue with the GITS sniper rifles.

We do like multi-part prints as this enables subtle painting finishes to be applied to each part which adds to the realism. The model was created to replicate the modular parts of the original rifle and so assembles mostly with hardware bolts and very little reliance on glue (two parts).

All STL parts are optimally orientated so can be placed directly onto the build plate. All parts will fit a 256 X 256 build plate.

Project Skill Level Required

You will need a medium to high level of skill in 3D printing and modelling to do justice to this model.

Part tolerances are quite tight so depending on what you create the parts with you may need to do some sanding and finishing to get parts to fit.

For example, FDM printing at 0.12mm or even down to 0.08mm layer height using a 0.4mm nozzle is good enough for a great fit for the assembly but as soon as you start to use resin parts the differences in resin shrinkage and tolerance will start to show.

NOTE: Although the model contains lots of detailed parts it should not be expected that final build will perform all the mechanical actions expected of the real weapon.

The model assembles without glue and adheres (where possible) to the assembly stages of the real firearm. Assembly requires some hardware bolts and springs.

The model features a removeable magazine, moving bolt and can chamber and eject the rounds.

The stock has fully adjustable butt length and cheek rest heights.

The safety can also be moved.

Stock is removeable and the barrel can be unscrewed.

Build Material Choices

FDM Printer

We have had excellent results with at 0.08mm layer height for smaller parts and 0.12mm for larger parts using a 0.4mm nozzle using PLA and the parts fit is excellent.

It is also noted that larger parts may well exhibit VFA or ghosting which will require extra sanding and polishing.

Resin Printer

Not really suitable for the larger parts but smaller parts would benefit from the higher resolution.

Resin is quite unpredictable when it comes to shrinkage or indeed expansion and is very dependent on the resin used, cure times and how well the model has been sliced and supported so when it comes to larger items you may find a lot of sanding and finishing is required for a good fit of parts.

Hardware Required

This model barely relies on any glue (Two small parts) and is assembled and secured similarly to the actual firearm so requires some hardware to assemble.

Ejector Spring 	3mm diameter, 20mm length X 1
Trigger Spring 	5mm diameter, 15mm length X 1
Magazine Release Spring 	6mm diameter, 16mm length X 1
Extractor Screw 	Countersunk M2 x 5mm X 1
Butt Plate Bolts 	Cap Head M4 x 10mm X 2
Stock Nut Plate Bolt 	Cap Head M4 x 20mm X 1
Stock Mount Bolts 	Cap Head M4 x 30mm X 4
Receiver Bolts 	Countersunk M4 x 10mm X 2
Receiver Bolt 	Countersunk M4 x 15mm X 1
Lower Receiver Bolts 	Machine Head M5 x 25mm X 2
Grip Bolt 	Machine Head M5 x 50mm X 1

Parts List

Following is a list of STL model parts along with notes.

- All STL parts are already orientated for placing onto build plate. Longer parts may need to be rotated (XY) to fit build plate.
- 256mm X 256mm X 256mm build volume required.
- Infill of 15% is suitable for parts unless otherwise stated.
- Layer height of 0.12mm suitable for parts unless otherwise stated.
- Just let the slicer add automatic supports unless otherwise stated.



308 Round

Optional part if you would like to place up to three rounds in the magazine.

Print X 3



Barrel 1

Do not use supports.

Optionally use a modifier in the slicer to set infill to 100 covering the threads and 10mm of adjacent barrel. This will prevent splitting if you overtighten the threads.

Print X 1



Barrel 2

Do not use supports.

Optionally use a modifier in the slicer to set infill to 100 covering the threads and 10mm of adjacent barrel. This will prevent splitting if you overtighten the threads.

Print X 1



Barrel 3

Do not use supports.

Optionally use a modifier in the slicer to set infill to 100 covering the threads and 10mm of adjacent barrel. This will prevent splitting if you overtighten the threads.

Print X 1



Bolt Handle

Do not use supports.

Use 6 walls for strength or 100% infill.

Print X 1



Bolt Knob

You can either use this smooth knob or the knurled one below.

No supports required – threads are printable as is.

Print X 1



Bolt Knob Knurled

You can either use this Knurled knob or the smooth one above.

No supports required – threads are printable as is.

This knob is best printed at 0.08mm layer height to fully define the knurling.

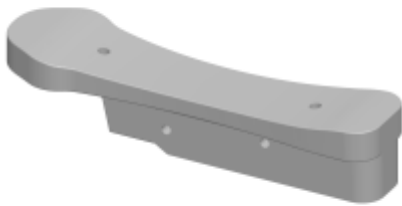
Print X 1

**Bolt**

Use 6 walls or 100% infill.

Use modifier in slicer to avoid supports around threaded Bolt Handle hole.

Print X 1

**Butt**

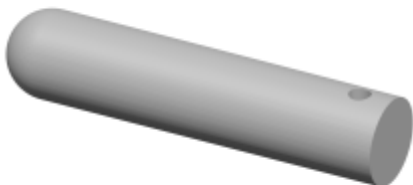
Print X 1

**Roll Pin**

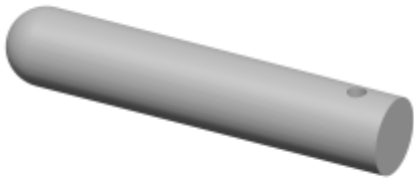
Print at 100% infill at 0.08mm layer height.

Alternatively use real 2.8 (or 3mm) X 20mm roll pins.

Print X 4

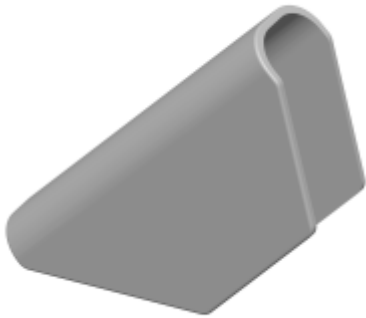
**Butt Guide Pin**

Print X 1



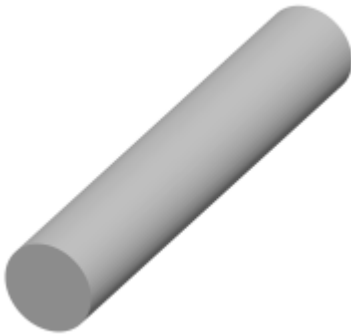
Cheek Rest Guide Pin

Print X 1



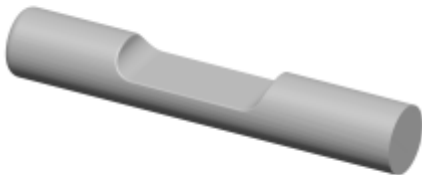
Cheek Rest

Print X 2 (**X 4** if using extended grip)



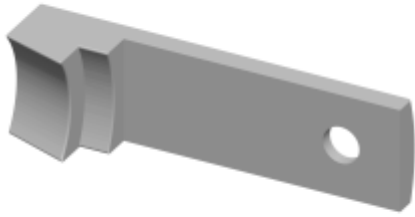
Ejector Pin
Use 100% infill.

Print X 1



Ejector
Use 100% infill.

Print X 1



Extractor

Use 100% infill.

Best to use 0.08mm layer height to better define extraction edges. *A PLA part will eventually wear if you load and eject rounds. Either make some spare prints or use a tougher filament.*

Print X 1



Grip Plug

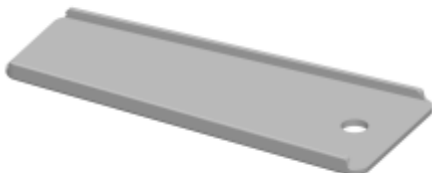
Print X 1



Grip

Use slicer modifier to provide 100% infill around bolt hole.

Print X 2



Magazine Base

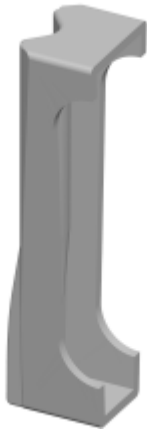
Use 100% infill.

Print X 1



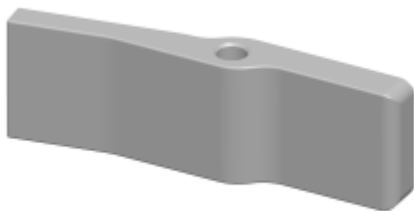
Magazine Floor

Print X 1



Magazine Follower

Print X 1



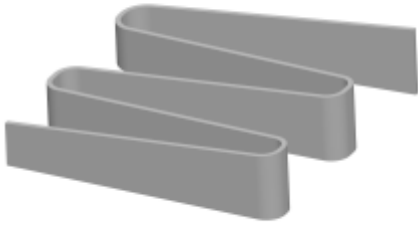
Magazine Release Lever
Use 100% infill.

Print X 1



Magazine Release Pin
Use 100% infill.

Print X 2



Magazine Spring

Use 100% infill and no brim.

Print X 1



Magazine

Print X 1



Muzzle Brake

Use slicer modifier to avoid supports on the threads.

Print X 1



Receiver Lower

There is an alternative part below that has a different cut around magazine entry. Choose whichever you like best.

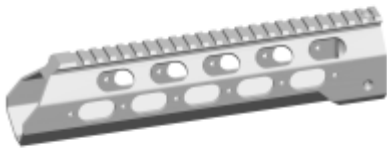
Print X 1



Receiver Lower Alt Cut

There is an alternative part above that has a different cut around magazine entry. Choose whichever you like best.

Print X 1



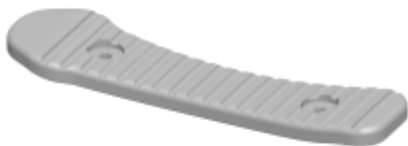
Foregrip

Print X 1



Receiver Upper

Print X 1



Recoil Pad

Print X 1



Butt Rod
Print at 100% infill.

Print X 1



Cheek Rest Rod
Print at 100% infill.

Print X 1



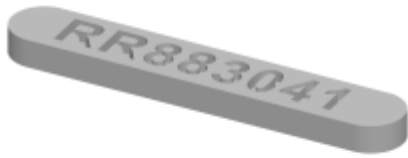
Safety Lever
Print at 100% infill.
A layer height of 0.08mm will better define the knob grip.

Print X 1



Safety Pin
Print at 100% infill.

Print X 1



Serial Number Insert
May require a spot of glue.

Print X 1



Sling Mount

Print X 2



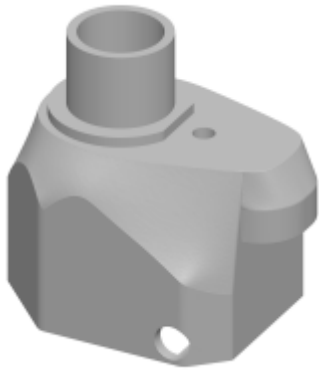
Stock Lever Lock Pad
May require a spot of glue.

Print X 1



Stock Lever Lock
Print at 100% infill.

Print X 1



Stock Mount

Print using 6 walls or at 100% infill.

Print X 1



Stock Round Nut Plate

Print at 100% infill.

Print X 1



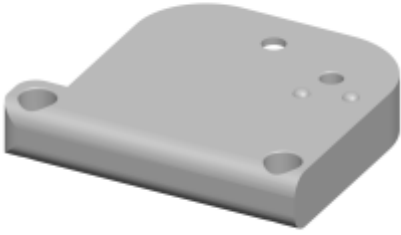
Stock Left

Print X 1



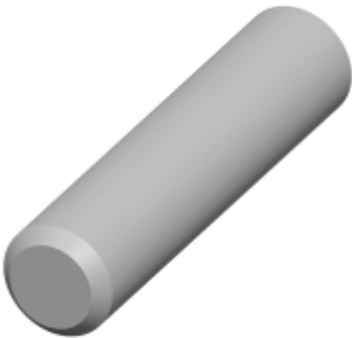
Stock Right

Print X 1



Trigger Block

Print X 1



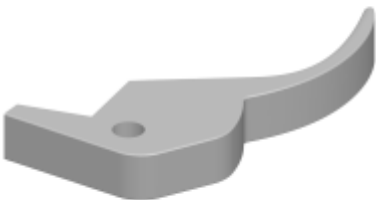
Trigger Body Pin
Print at 100% infill.

Print X 2



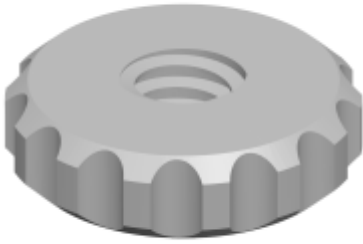
Trigger Pin
Print at 100% infill.

Print X 1



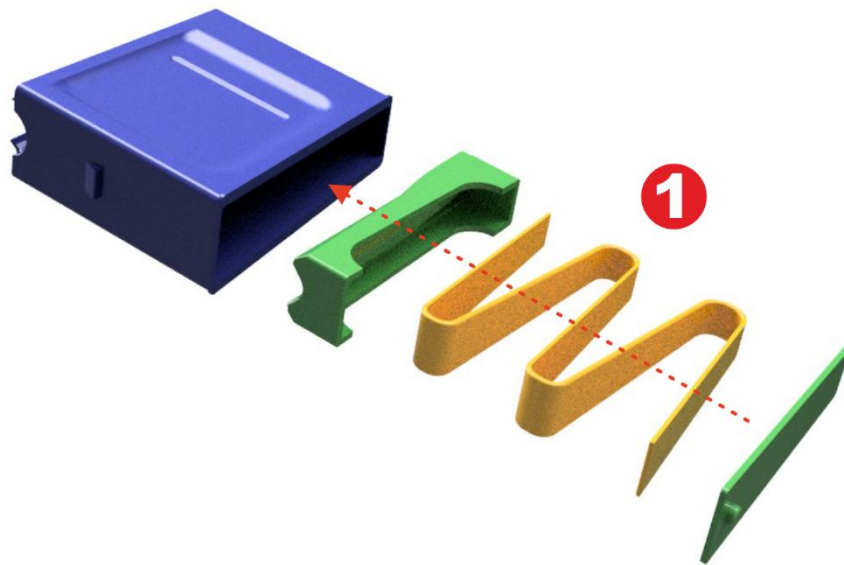
Trigger
Print at 100% infill.

Print X 1

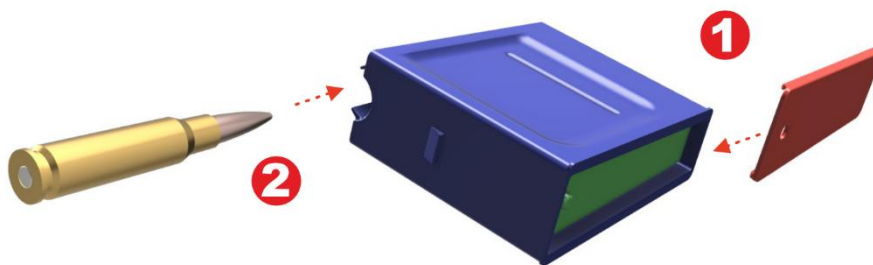
**Wheel**

If you have trouble removing supports from the thread, use a wide flat blade screwdriver to force into the centre and 'unscrew' the support structure.

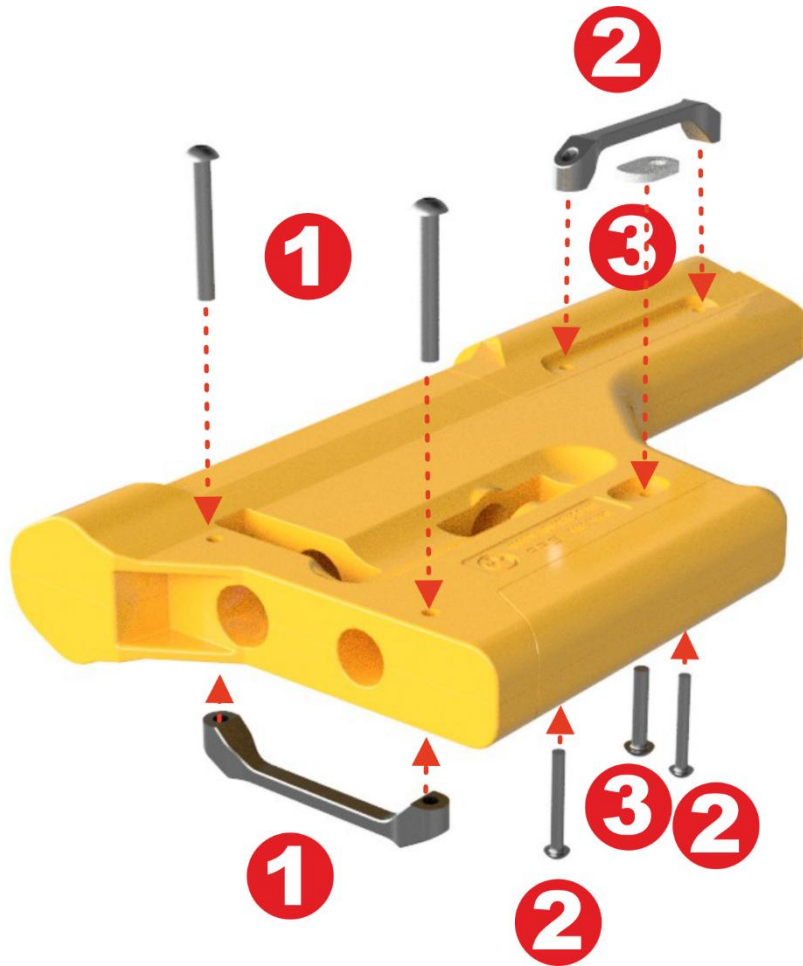
Assembly Sequence



1. Slide Magazine Follower, Magazine spring, and Magazine Floor into base of Magazine.

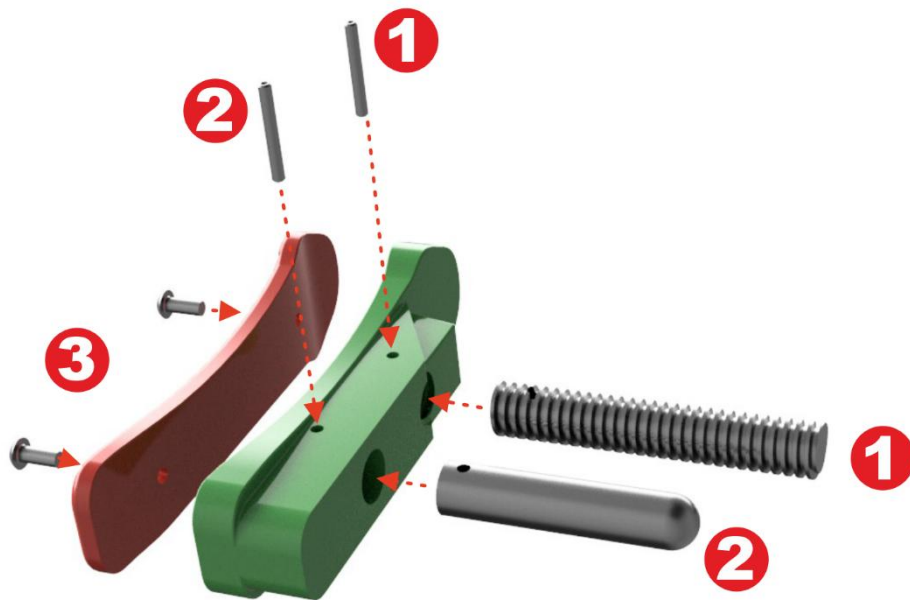


1. Whilst holding Magazine Floor slightly inside Magazine, slide on Magazine Base onto Magazine.
The Magazine Floor should locate the pip into the hole in Magazine Base and hold everything together.
2. Add 308 Round X 3 if desired.

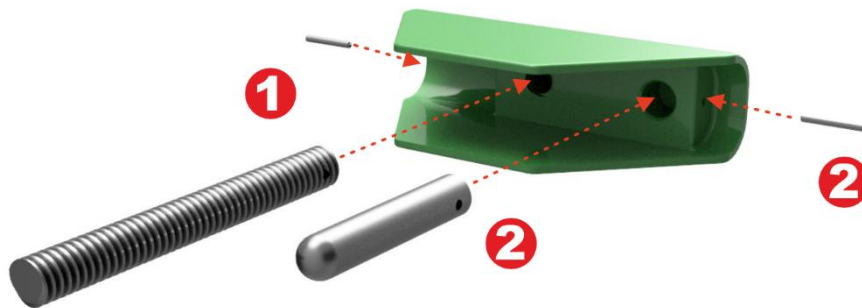


The following steps are performed whilst holding Stock Left and Stock Right together.

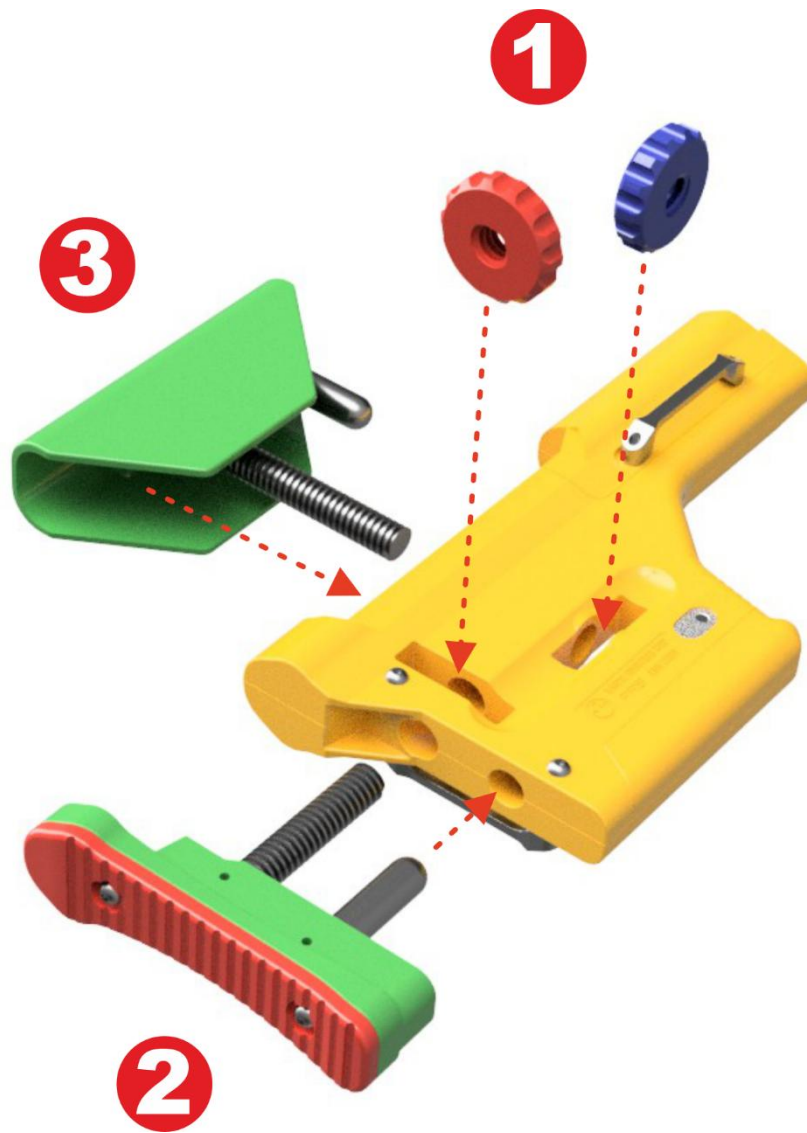
1. Using 2 X M4 Cap Head X 30mm bolts screw through Stock parts and into Sling Mount.
2. Using 2 X M4 Cap Head X 30mm bolts screw through Stock parts and into Sling Mount.
3. Use M4 Cap Head X 20mm bolt screw through Stock parts and into Stock Round Nut Plate.



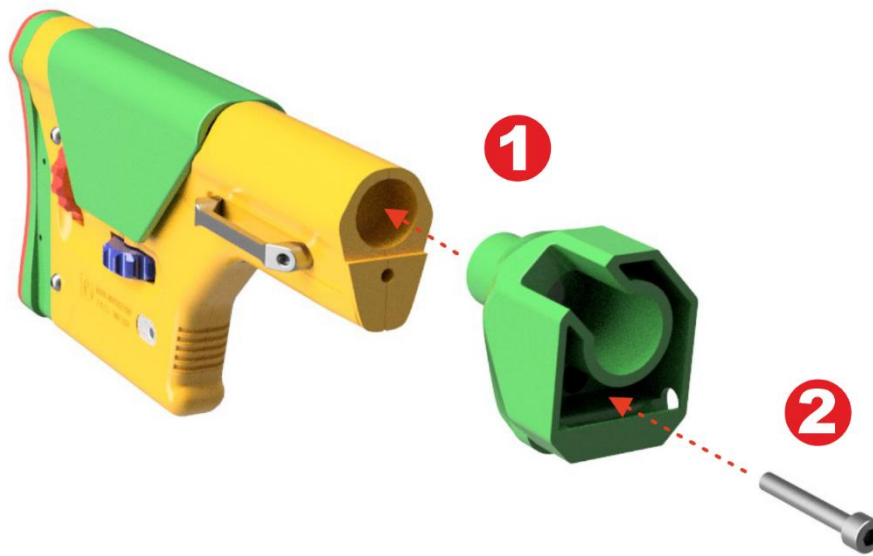
1. Screw Butt Rod into Butt ensuring that the hole aligns in both parts.
Secure with Roll Pin.
2. Fit Butt Guide Pin into Butt ensuring that the hole aligns in both parts.
Secure with Roll Pin.
3. Secure Recoil Pad to Butt using 2 X Pan Head M4 X 10mm bolts.



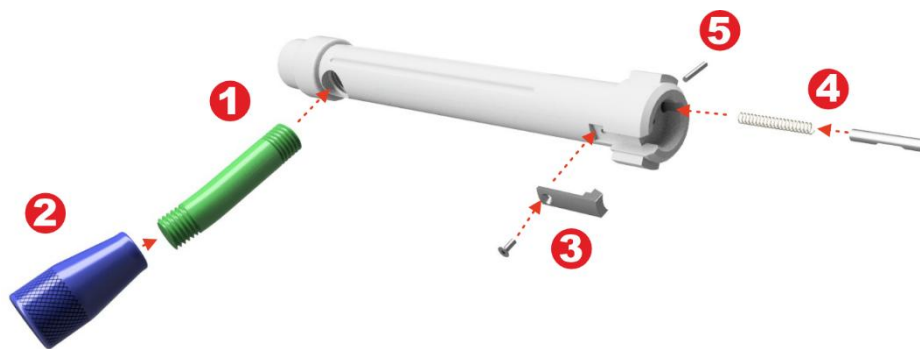
1. Screw Cheek Rest Rod into Cheek Rest ensuring that the hole aligns in both parts.
Secure with Roll Pin. You will need to use a suitable 2-2.5mm rod to push Roll Pin down the hole in the Cheek Rest until it sits centrally inside Cheek Rest Rod.
2. Fit Cheek Rest Guide Pin into Cheek Rest ensuring that the hole aligns in both parts.
Secure with Roll Pin. You will need to use a suitable 2-2.5mm rod to push Roll Pin down the hole in the Cheek Rest until it sits centrally inside Cheek Rest Guide Pin.



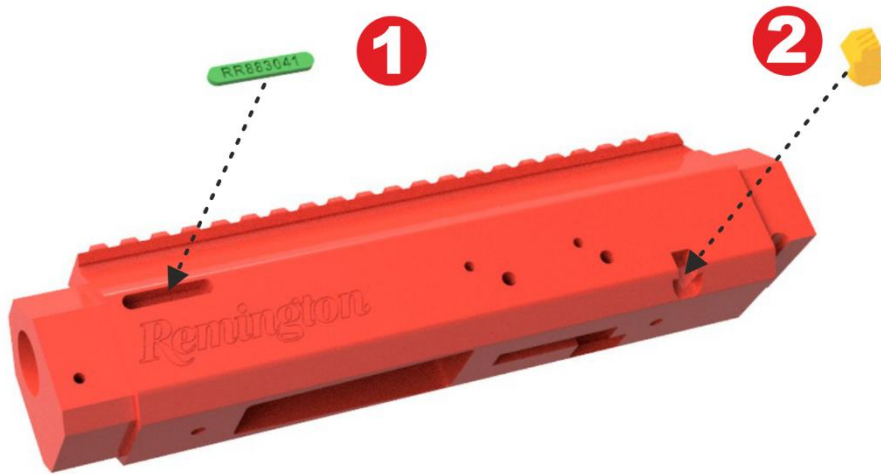
1. Place a Wheel into each of the cutouts in the assembled stock.
2. Slide Butt assembly into the rear of the Stock Assembly and rotate the Wheel to wind in the Butt assembly.
3. Slide Cheek Rest assembly into the rear of the Stock Assembly and rotate the Wheel to wind in the Cheek Rest assembly.



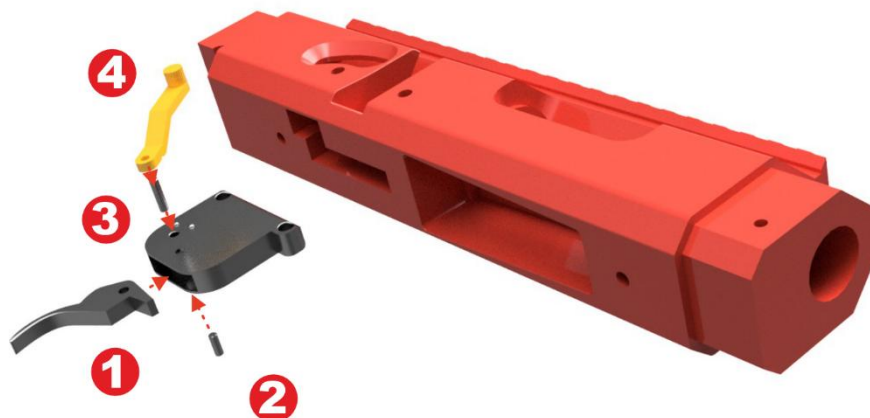
1. Slide Stock Mount into Stock assembly.
2. Secure with M5 Machine Head X 30mm bolt.



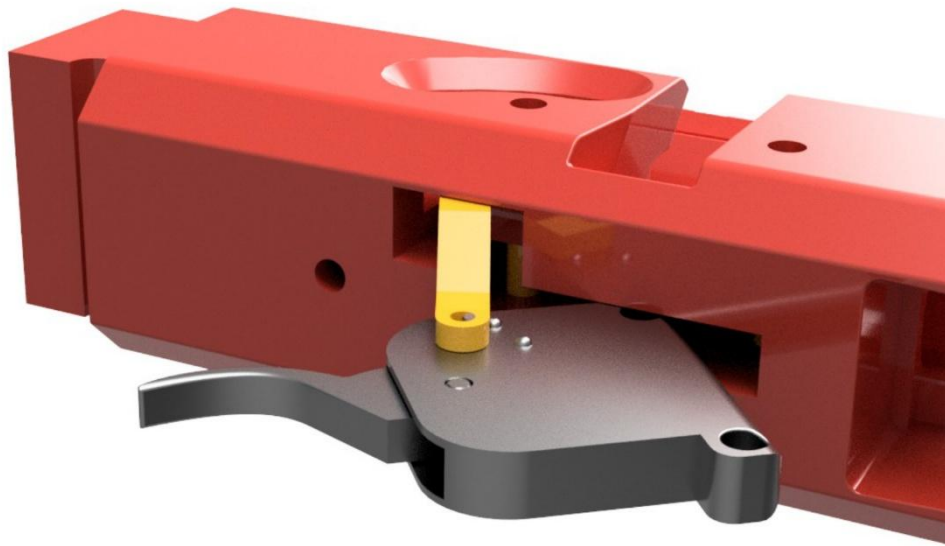
1. Screw Bolt Handle into Bolt.
2. Screw Bolt Knob (Smooth or knurled) onto Bolt Handle.
3. Screw Extractor onto Bolt using M2 X 5mm Countersunk screw.
4. Place Ejector Spring followed by Ejector into the hole on the bolt face of the Bolt.
Ensure that the flat side of the Ejector is aligned with the hole on the side of the Bolt.
5. Slide in the Ejector Pin (or use a length of 1.75mm filament) to secure the Ejector.
Press in the Ejector against the spring whilst fitting the pin. This should secure the Ejector which should be able to freely be pressed in against the spring and pop back out again.



1. Fit Serial Number Plate into Receiver Upper.
This may need a spot of glue.
2. Fit Stock Lever Lock Pad into Receiver Upper.
This may need a spot of glue.

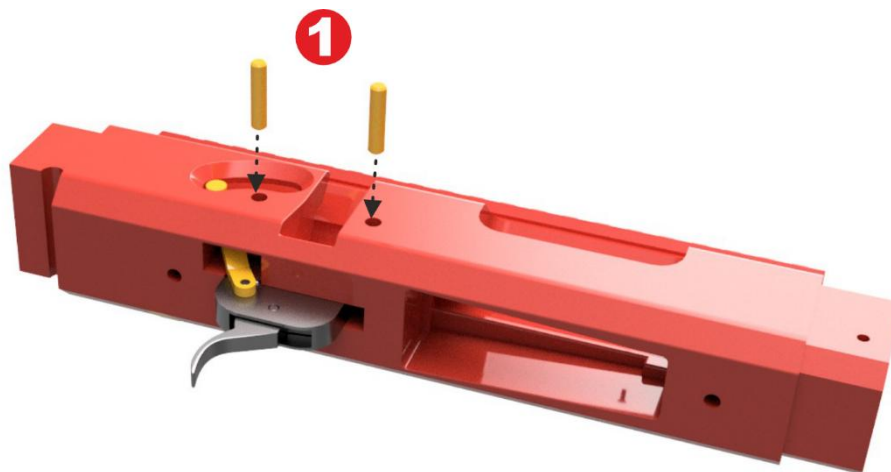


1. Place Trigger into Trigger Block.
2. Fit Trigger Pin to secure Trigger.
Trigger should move freely.
3. Place Safety Pin into Trigger Block so that it sits proud on the side of the Trigger Block with the dimples (On the top in the image above).
4. Place Safety Lever onto Safety Pin.

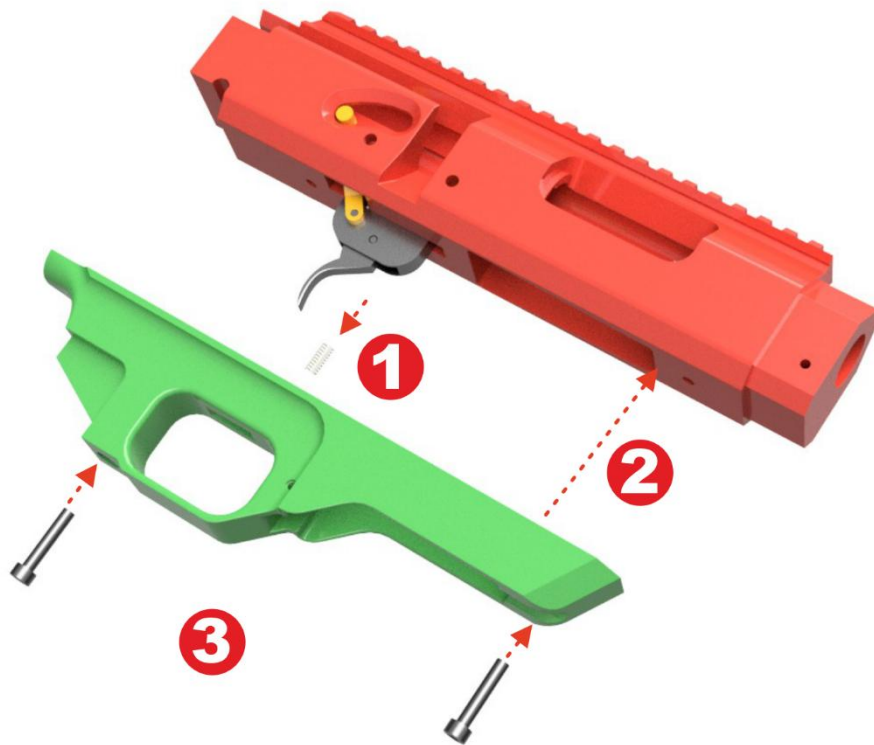


Move Safety Lever to the rear as shown in the image above and slide it into Receiver Upper followed by the Trigger Block.

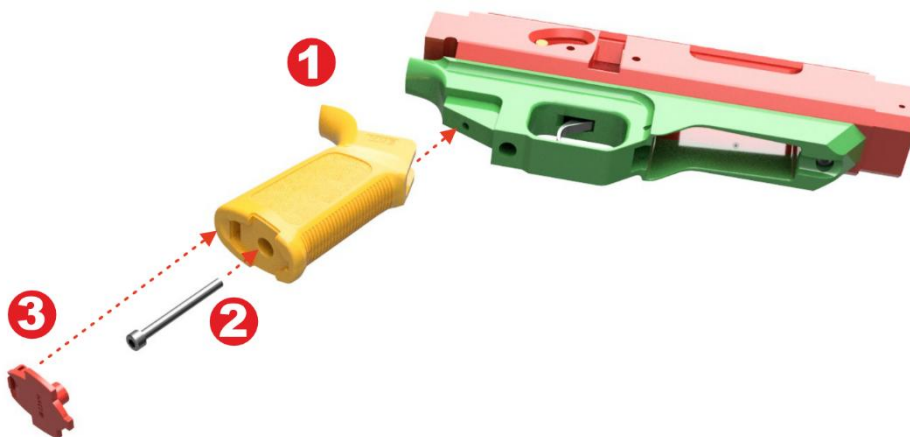
This is tricky but there is a channel inside Receiver Upper that should allow Safety Lever to slide in.



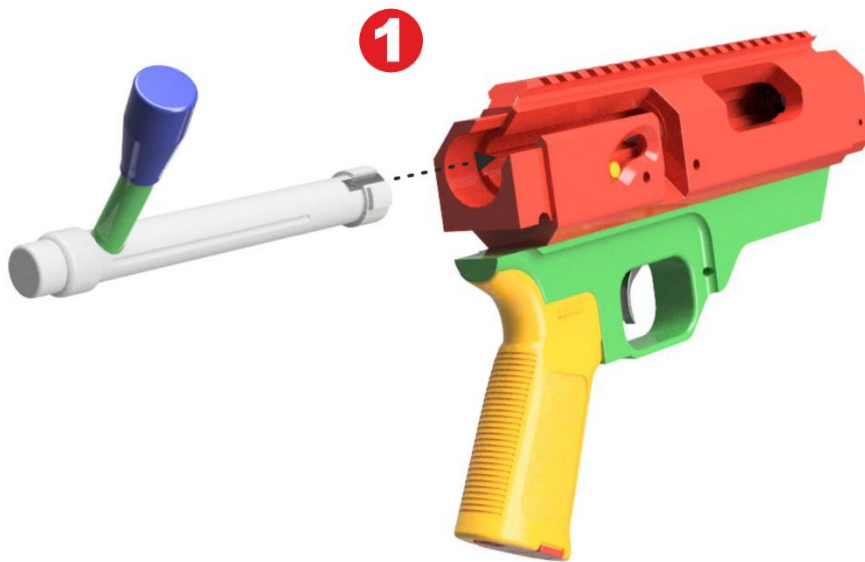
1. Once the Trigger Block and Safety Lever are in position, lock in place by inserting the two Trigger Body Pins to secure into place.
These should be pressed in to as to sit centrally within Receiver Upper.



1. Place Trigger Spring into recessed hole in the chosen Receiver Lower.
2. Ensuring that the Trigger Spring is held in place, align the Receiver Lower to the bottom of Receiver Upper.
3. Secure with 2 X M5 Machine Head X 25mm bolts.



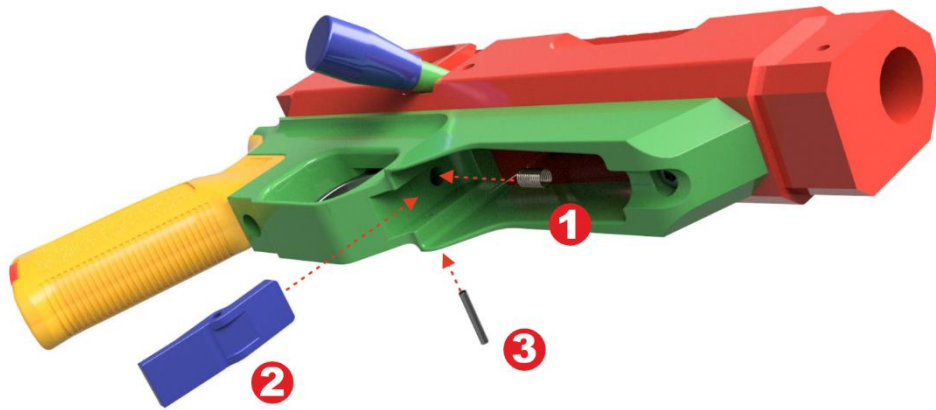
1. Fit Grip to Receiver Lower.
 2. Secure M5 Machine Head X 50mm bolt.
 3. Attach Grip Plug to bottom of Grip.
- NOTE: Grip Plug is non-functional and is held in place by friction (But looks to be an operational clip mechanism).



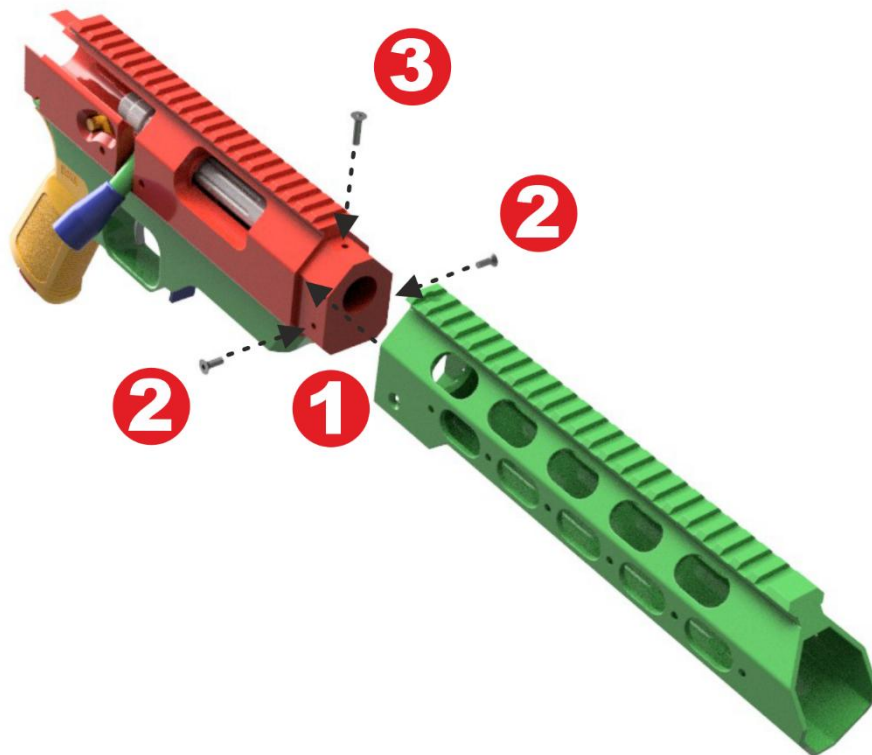
1. Slide completed Bolt assembly into the rear of the Receiver assembly. Ensure that the Bolt Handle is in the 'UP' position and that the Bolt lugs are horizontal to allow the Bolt to slide in.



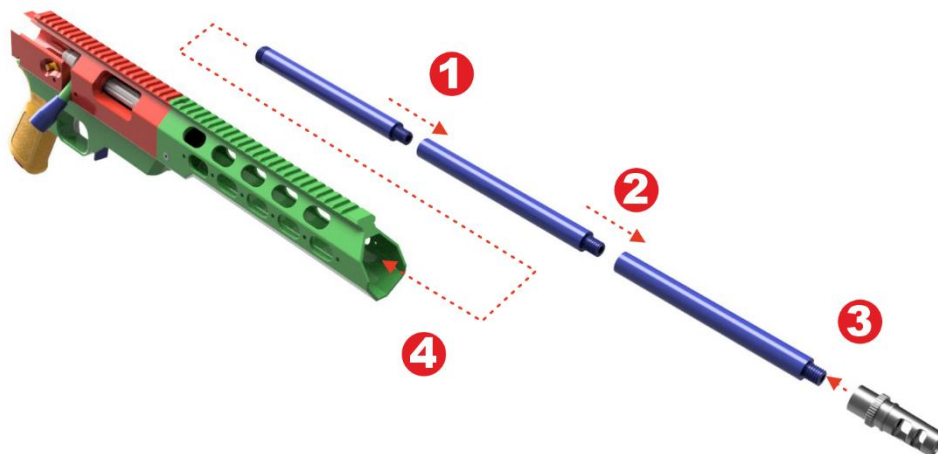
The Bolt should be able to be slid forward then lock down as shown above.



1. Place Magazine release Lever Spring into the recessed hole in the Receiver Lower.
2. Hold the spring in place and locate the Magazine release Lever into the Receiver Lower ensuring that the holes are aligned.
3. Secure Magazine release Lever by fitting Magazine Release Pin.



1. Slide Foregrip onto receiver assembly.
2. Secure with 2 X M4 Countersunk X 10mm Screws.
3. Fit M4 Countersunk X 15mm screw into the top securing both parts together.



1. Screw together Barrel 1 and Barrel 2.
2. Screw Barrel 3 onto previously assembled Barrel.
3. Screw Muzzle Brake onto Barrel 3.
4. Screw the entire Barrel assembly into the Receiver assembly.

NOTE: Do not overtighten barrels as this can snap the threads from the barrel.



1. Fit Stock assembly onto the rear of the Receiver assembly.
2. Secure by pushing in the Stock Lock Lever. The end of the lever should sit at an angle over the Stock Lever Lock Pad.



1. Finally, fit the Magazine.

To release the Magazine simply pull the Magazine release Lever towards the Magazine.

Gallery

Actual Remington 700 Tactical Chassis Rifle



Duplex Designs Model Renders





**FDM 3D Printed Model
Photos Coming Soon**

**FDM 3D Printed Model
Photos Coming Soon**

**FDM 3D Printed Model
Photos Coming Soon**

**FDM 3D Printed Model
Photos Coming Soon**

**FDM 3D Printed Model
Photos Coming Soon**

**FDM 3D Printed Model
Photos Coming Soon**



<https://duplexdesigns.co.uk>

support@duplexdesigns.co.uk

Issued: 10th October 2026

© 2026 Duplex Designs