



KNIGHT[®]
C U S T O M S



Terra Recon conversion set manual

1

Items required

Sold separately

To complete the conversion, you will need the following:

Vanquish Products H10 Optic

Non-fog instant glue.

1mm x 65mm metal wire (metal pin or similar - A cut down safety pin can be a good source).

6 M2x5mm screws

2 M3x5mm screws

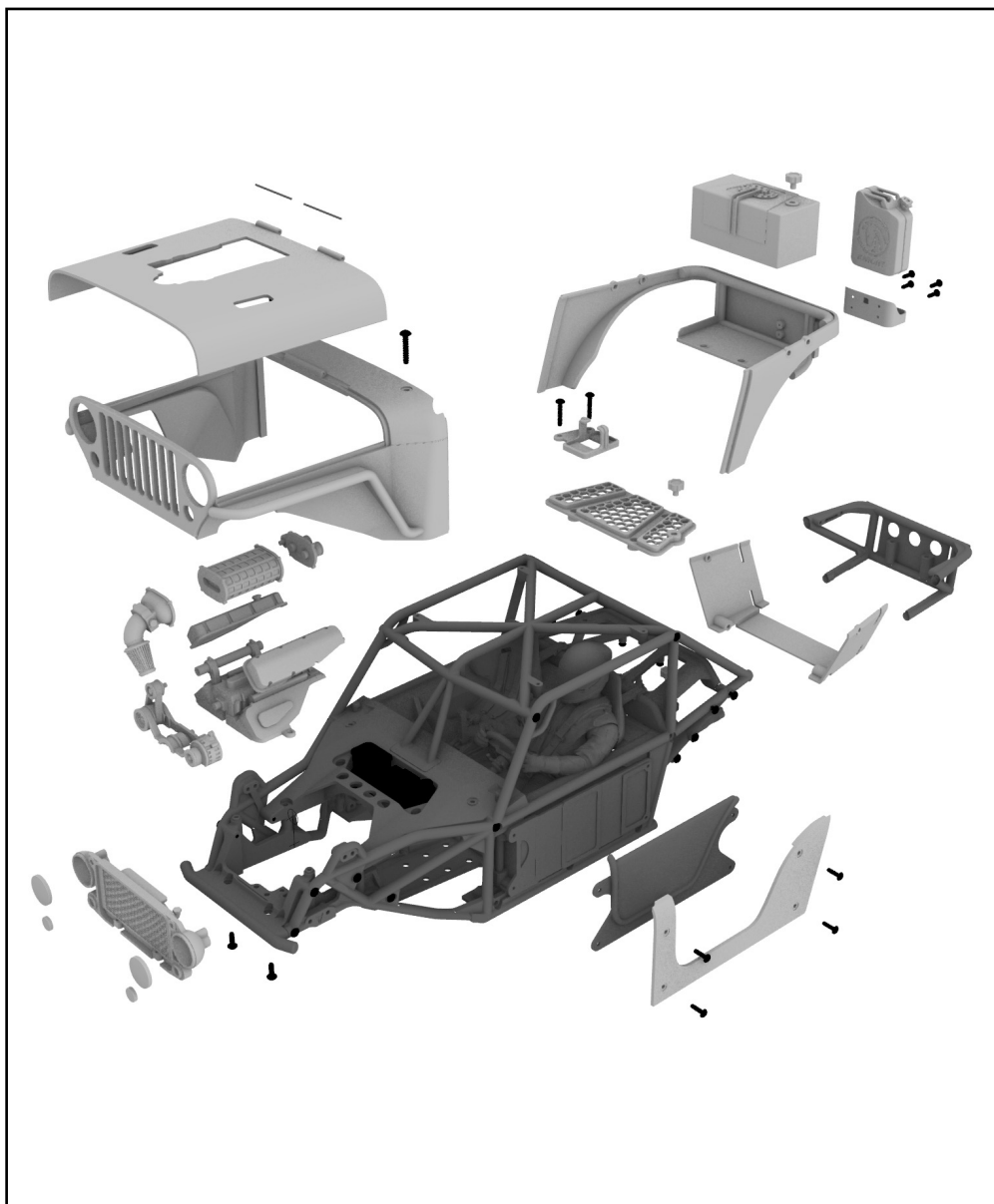
2 M3x10mm screws

2 6mm spacers

Velcro 5mm x 30mm

2 white LED 5mm

2 orange LED 3mm



3D printer set up

If you purchased the digital 3D file set, they include all the STL files to complete the assembly. G-codes are also included in the download. These G-codes are a recommended starting point for those new to 3D printing or just looking for a quick start.

The G-codes can be sent directly to your printer and come with our recommended settings, orientation & supports for printing in PLA filament. Unless otherwise stated, we recommend Bambu Lab PLA Matte for best results.

G-codes are Included for the Bambu Lab & Prusa series of printers. The Prusa G-codes should also work on other printers such as the Ender series of printers that have a print bed 20x20cm or larger.

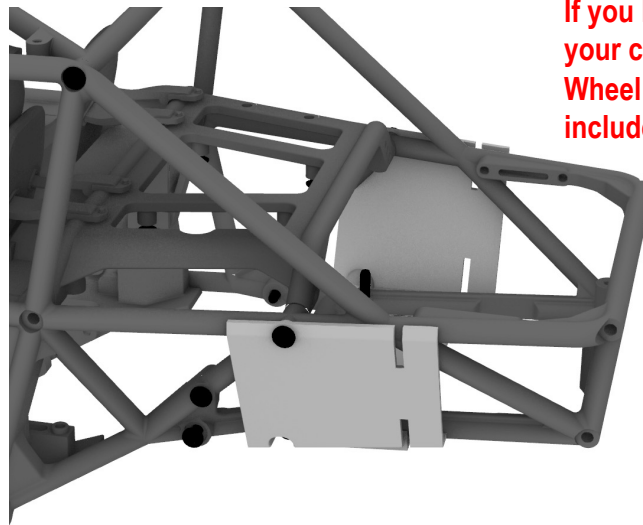
1

Short Wheel Base rear cage modification

NOTE: If you **DO NOT** want to cut your cage, there is a Long Wheel Base body option included (see page 11).

Use the included cage cutting template to ensure the cage is cut in the correct area.

1

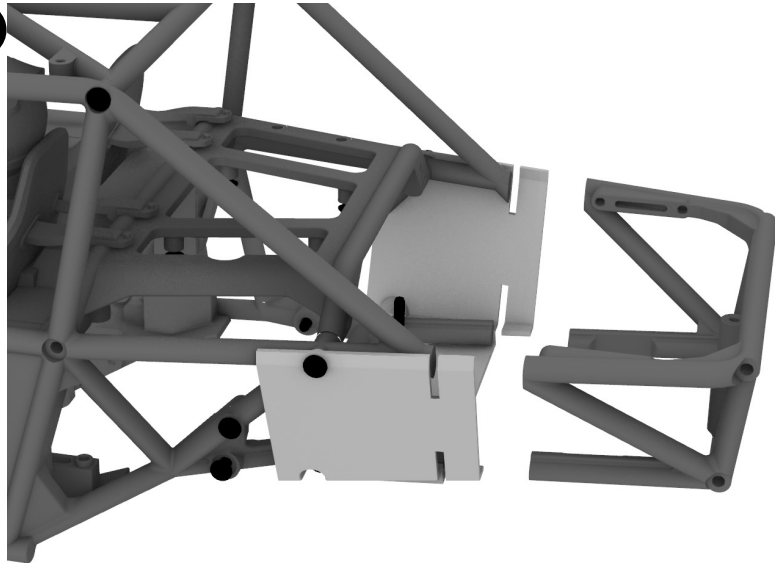


If you **DO NOT** want to cut your cage, there is a Long Wheel Base body option included (see page 11).

2

NOTE: Once the cage is cut the cutting template should be removed.

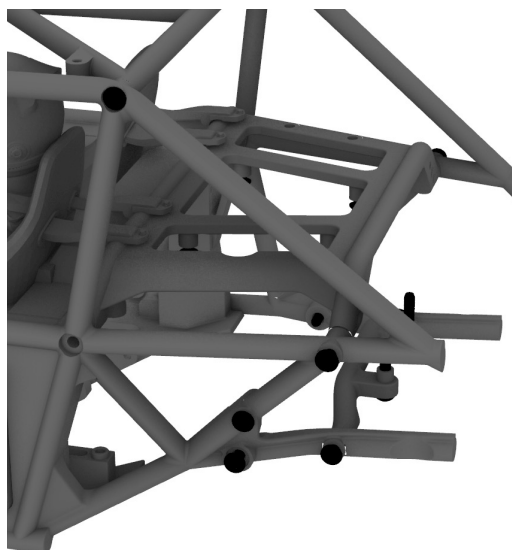
2



3

Cage ready for the next step.

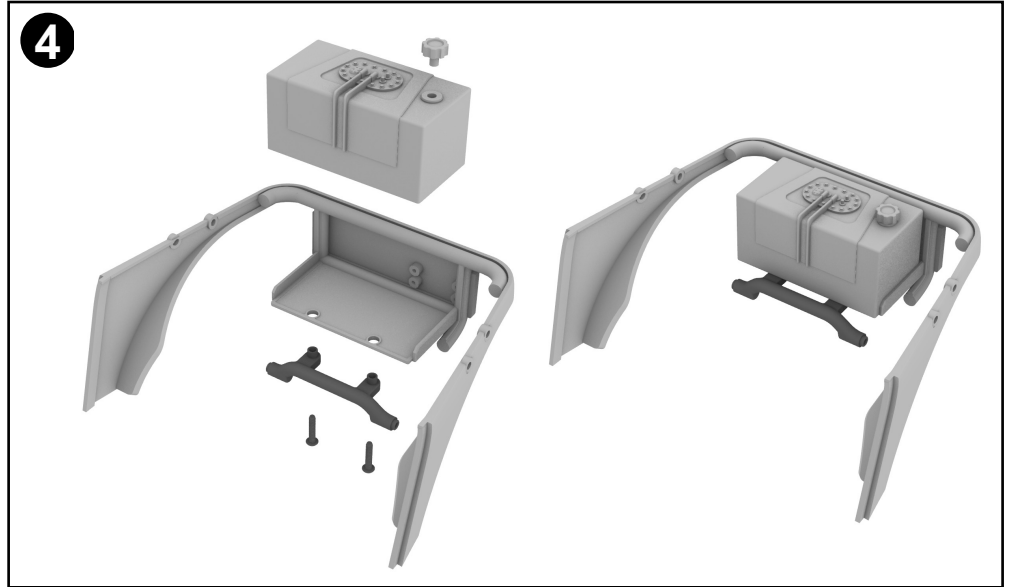
3



4

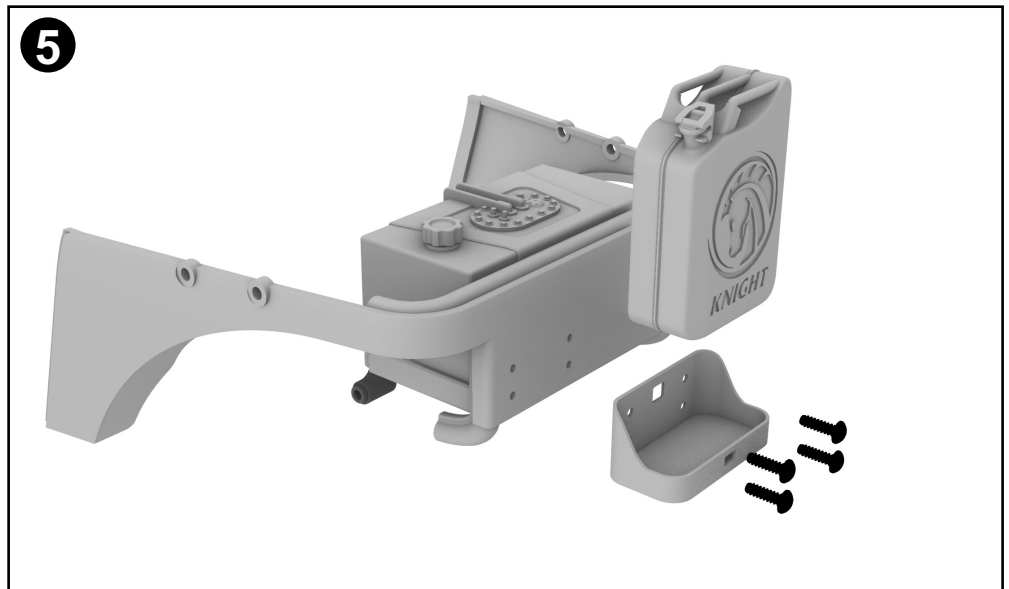
Sub assembly of the rear body for the Short Wheel Base variant.

NOTE: Remove the lower cage cross brace to fit to the lower fuel tank.



5

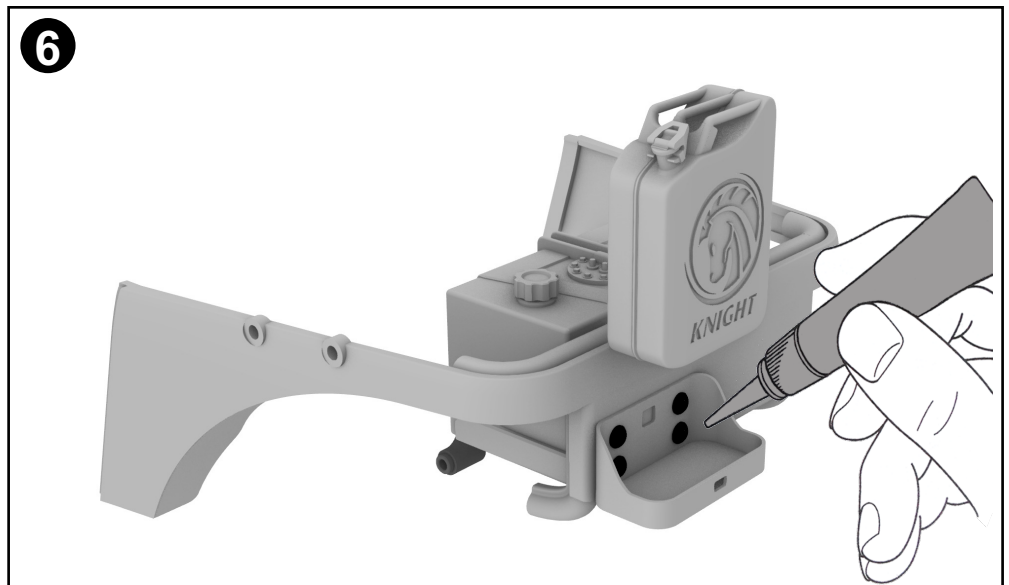
Use 4 M2x5mm screws (sold separately) to fix the rear fuel tank mount to the rear of the body.



6

Mounting the rear fuel tank.

NOTE: the fuel tank should be glued in place.

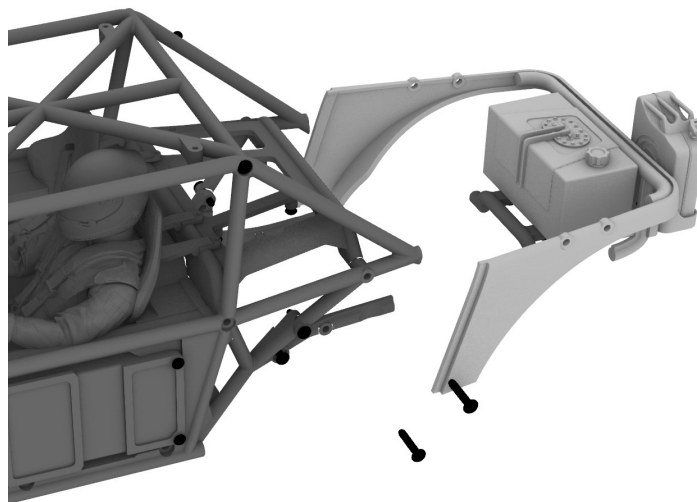


7

Attaching the rear body to the cage.

NOTE: Ensure you use the stock screws in both sides of the lower cross brace.

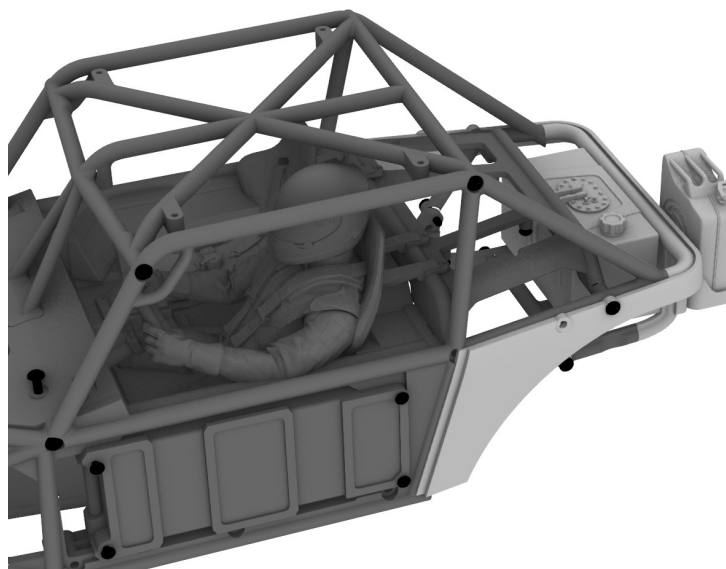
7



8

Body ready for the next step.

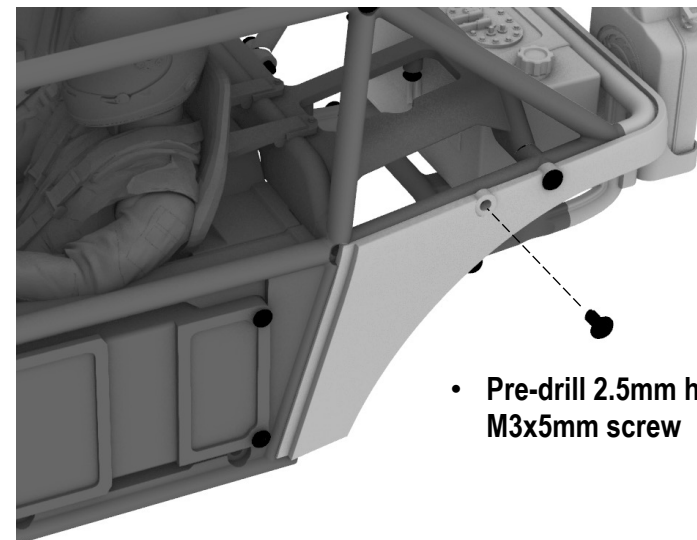
8



9

NOTE: Pre-drill 2.5mm hole and add a M3x5mm screw each side (sold separately).

9

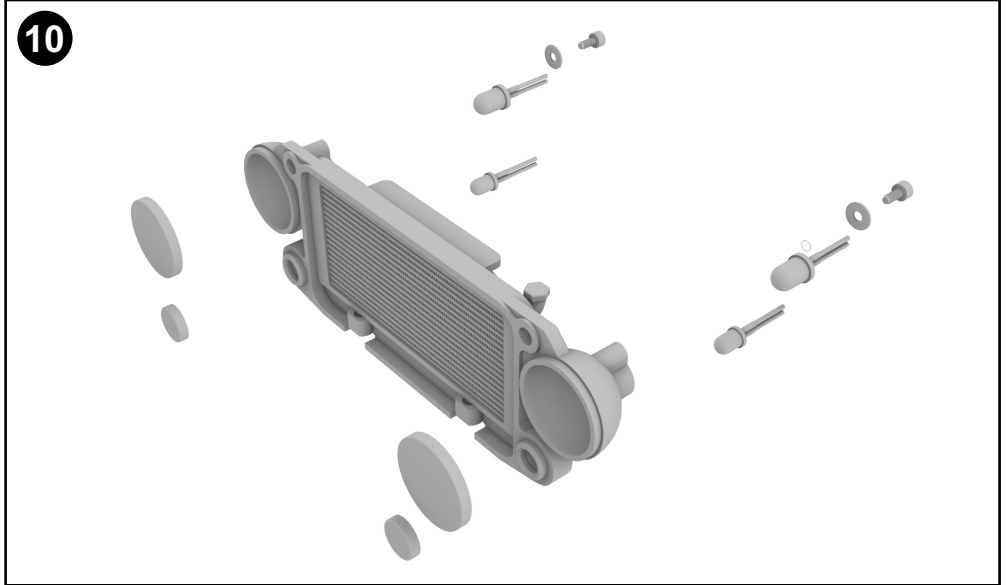


- Pre-drill 2.5mm hole and add M3x5mm screw

10

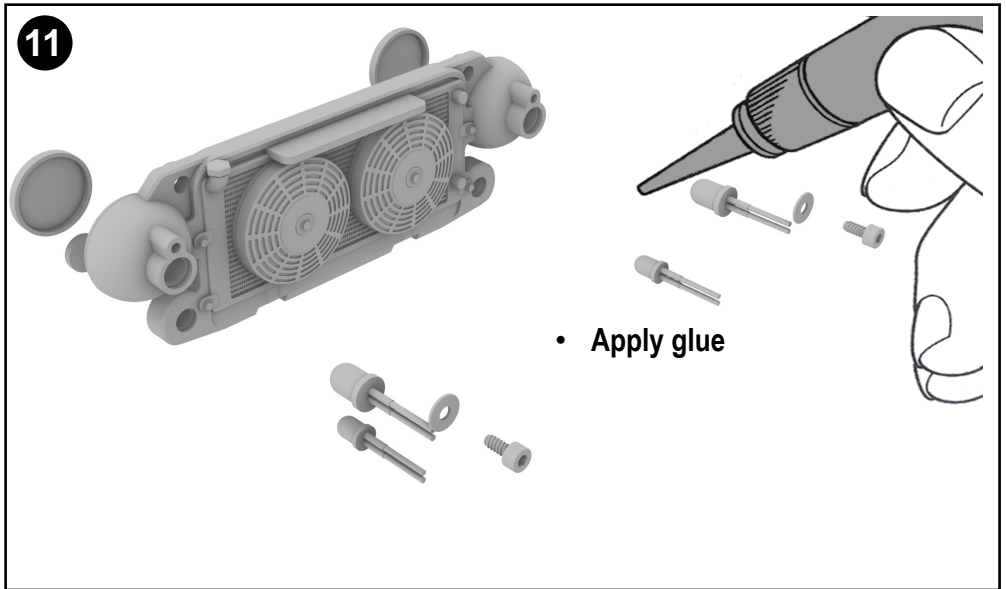
Front grill assembly

NOTE: LED's sold separately. 3mm for the lower turn signals and 5mm for the main lights.



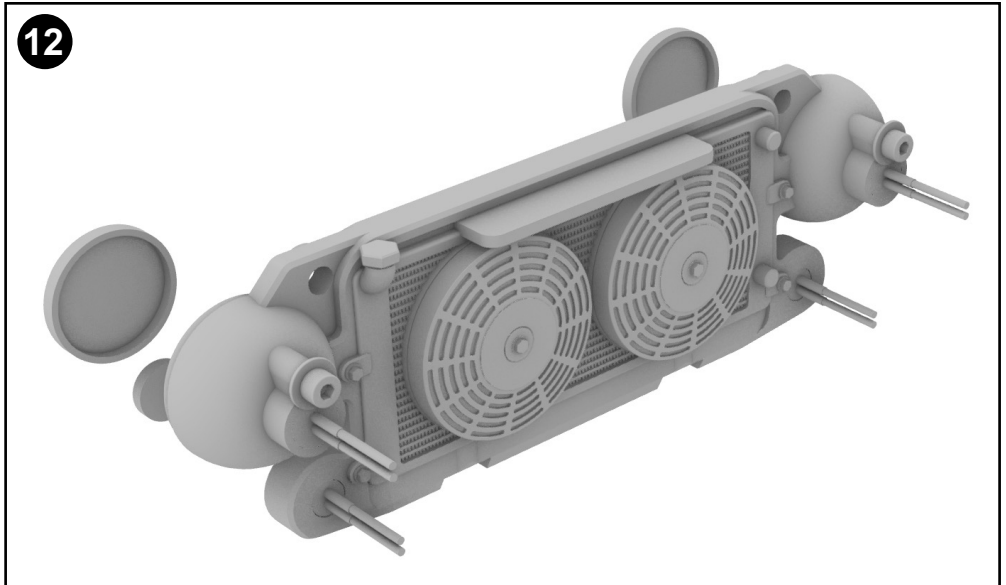
11

LED's held in place with glue 6mm spacers and M2x5mm screws (sold separately)



12

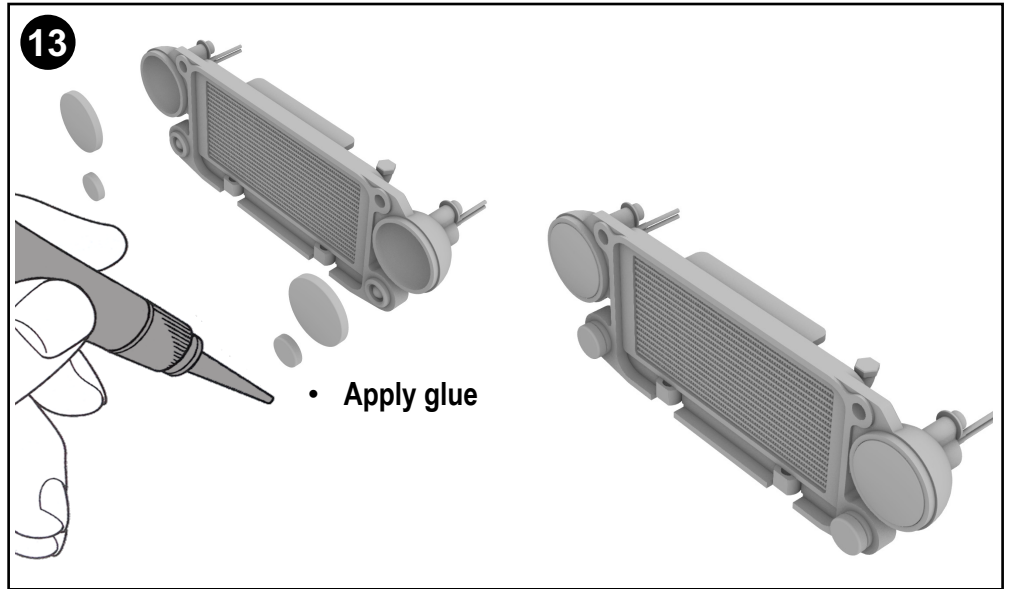
LED's installed.



13

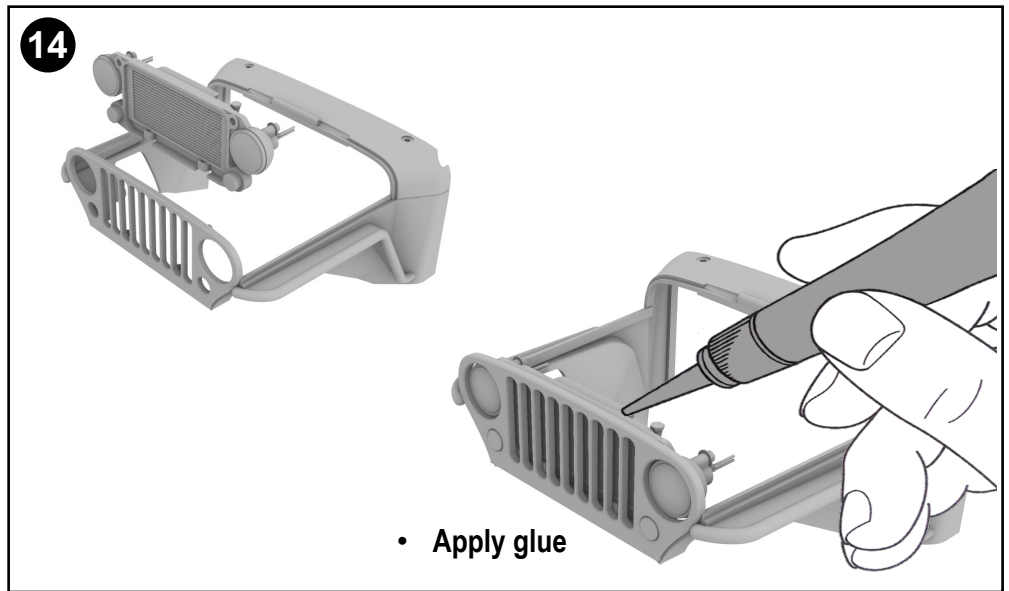
Mount light lens

NOTE: Be sure to use non-fog glue for best results



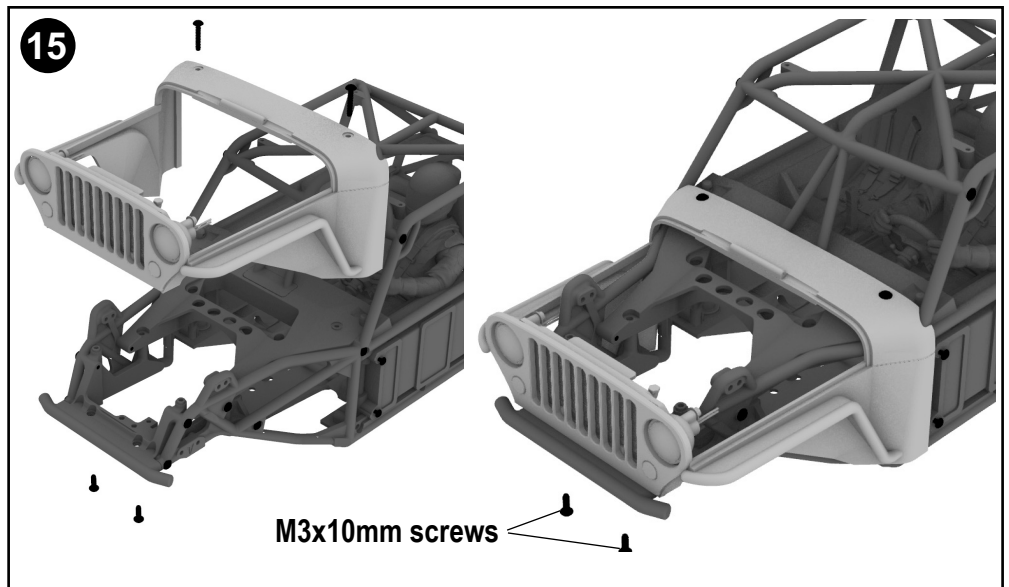
14

Mount radiator into the front body. Apply glue for best results.



15

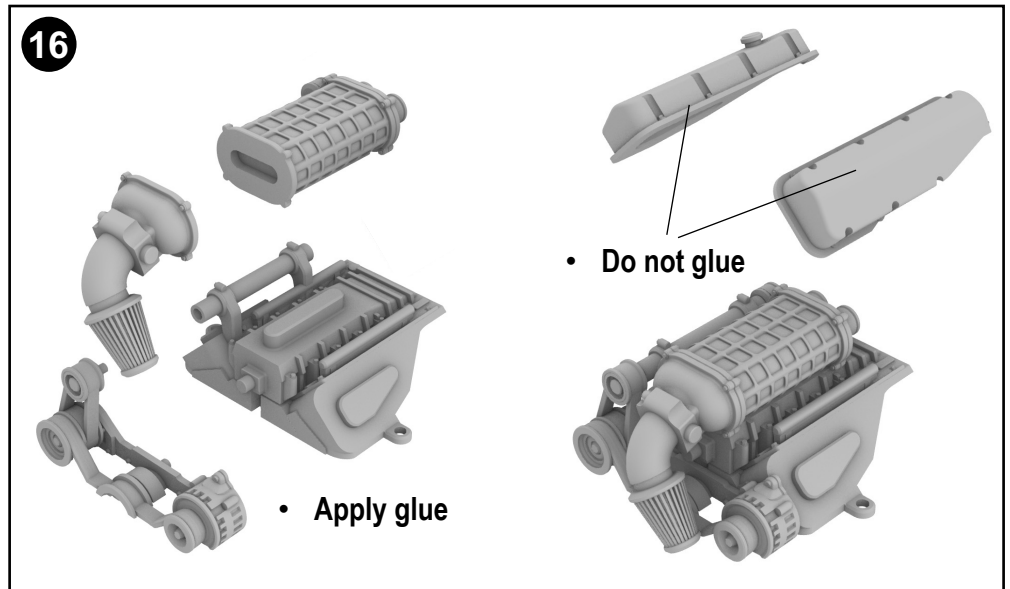
Front body fits to H10 optic cage using the stock screws at the top and 2 M3x10mm screws at the bottom (sold separately)



16

Engine sub assembly.
Glue all parts together as shown.

NOTE: Do not glue headers to the main engine until the engine is mounted into the H10 cage.

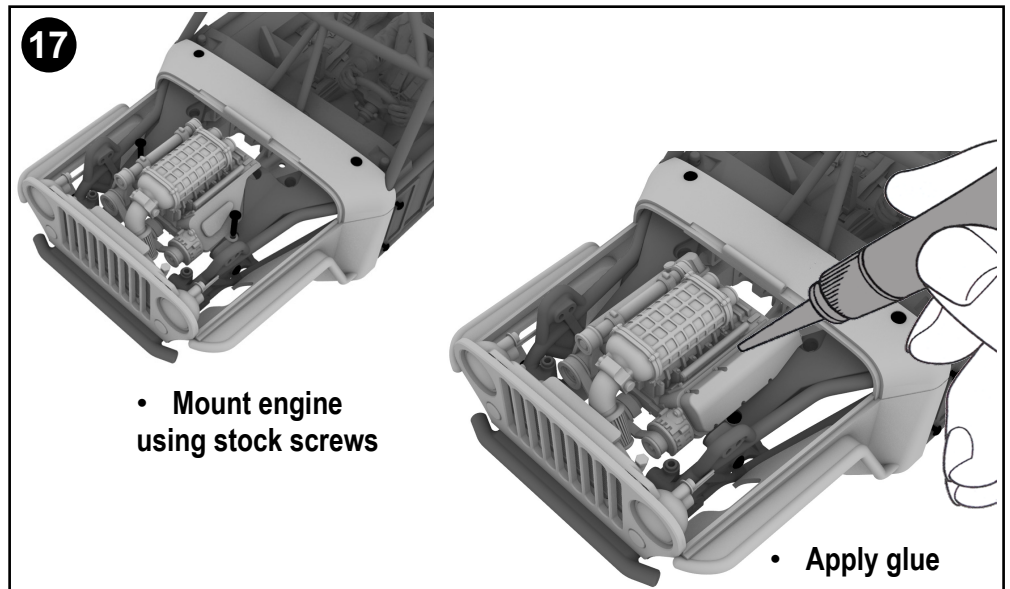


17

Install engine using stock screws.

Glue headers onto the engine only after the engine is mounted to the H10 cage.

NOTE: If you want to remove the engine later we recommend using hot glue on the headers.

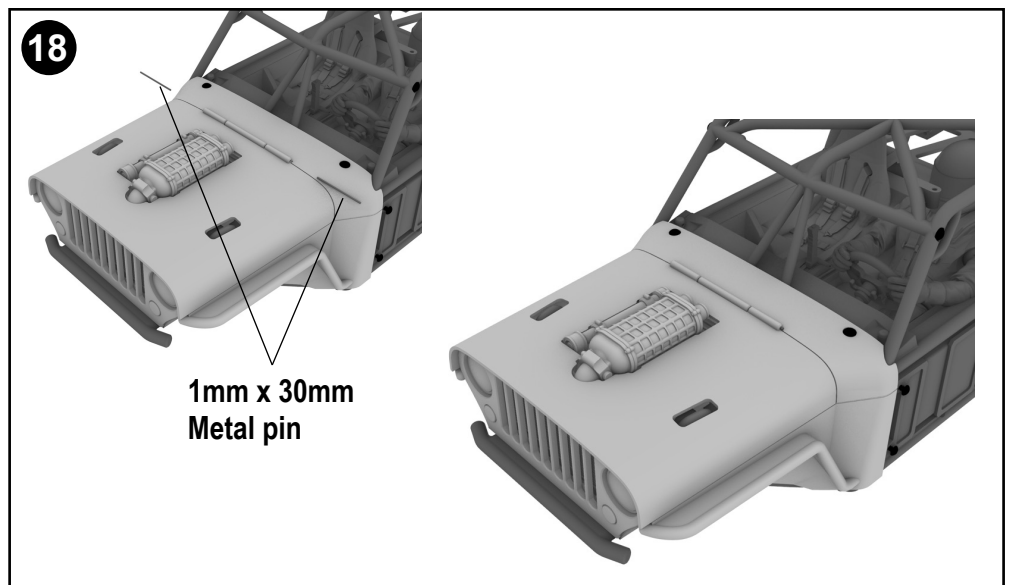


18

The hood can be mounted to the front body using 1mm wire pin (sold separately)

NOTE: A cut down safety pin is a good source for hinge pins.

Cut the wire into two 30mm lengths and insert one each side of the hinge.

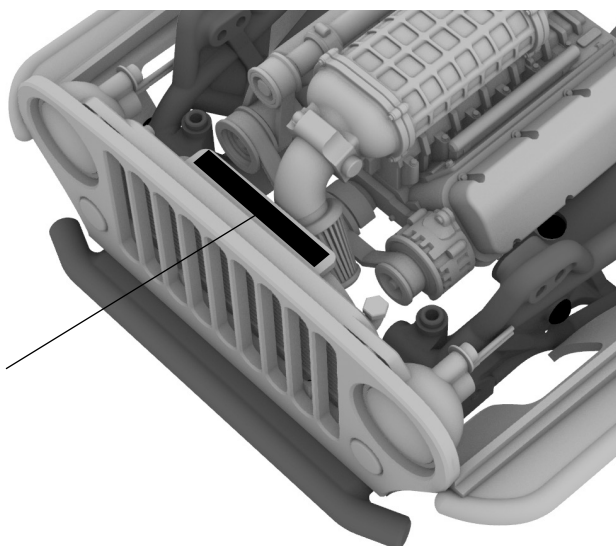


19

Apply a small piece of Velcro 5mm x 30mm (sold separately) to the top of the radiator to help keep the hood closed during operation.

19

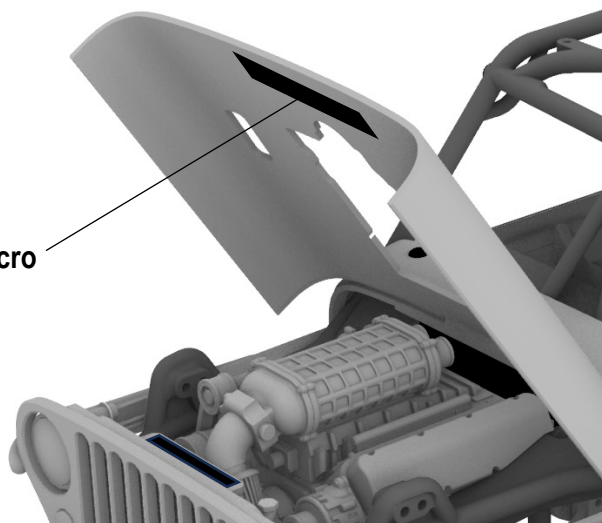
Velcro

**20**

The other part of the Velcro can be fitted to the inside of the hood.

20

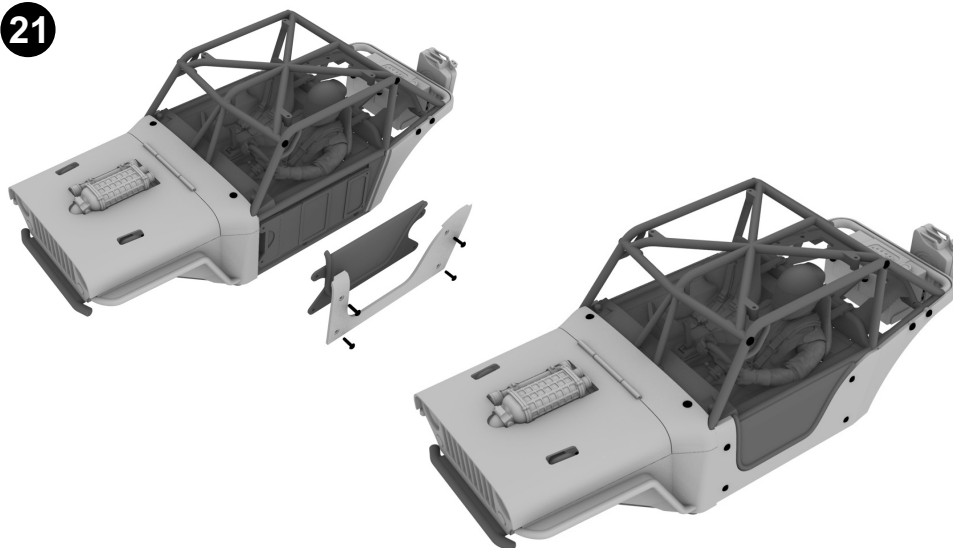
Velcro

**21**

Doors are fitted to the stock battery doors using the stock screws.

Repeat for both sides.

NOTE: The order of assembly to the battery door.

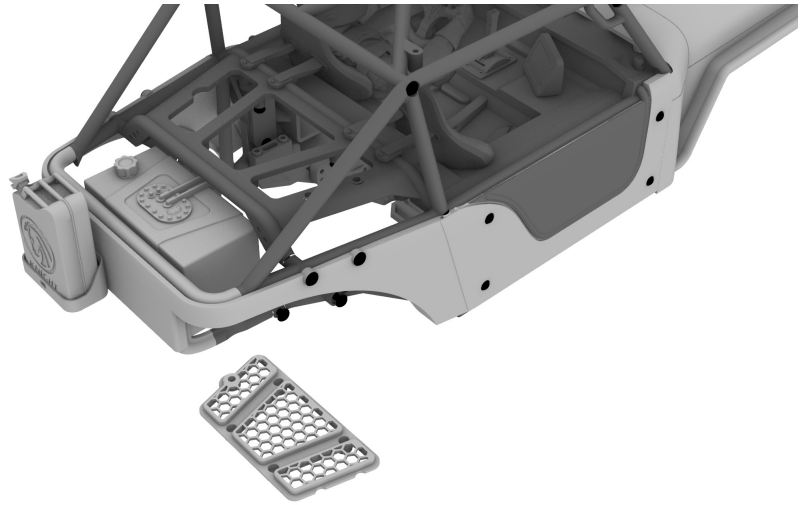
21

22

Mount the rear brace grill from the under side of the cage.

NOTE: The grill should be a tight fit and not require glue or screws.

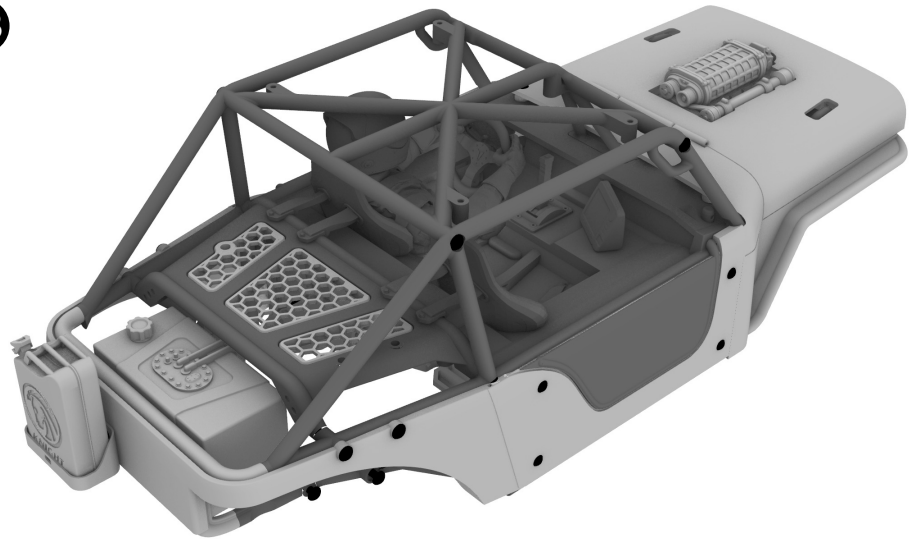
22



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Brace grill installed.

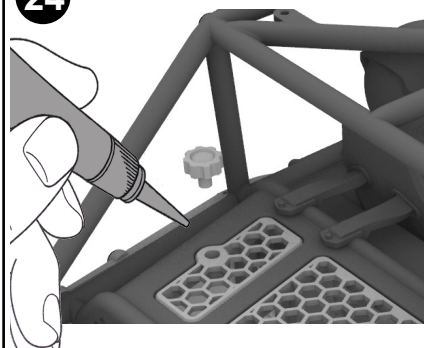
23



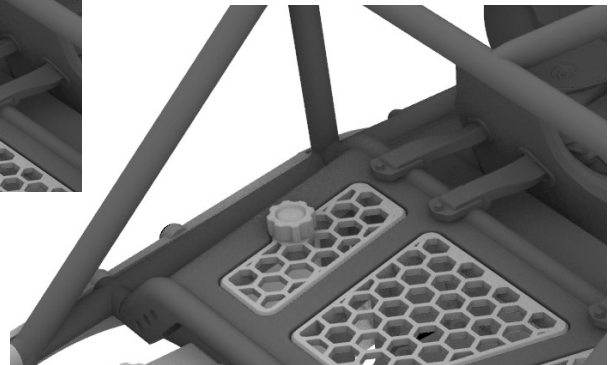
24

Glue fuel cap in place as shown.

24



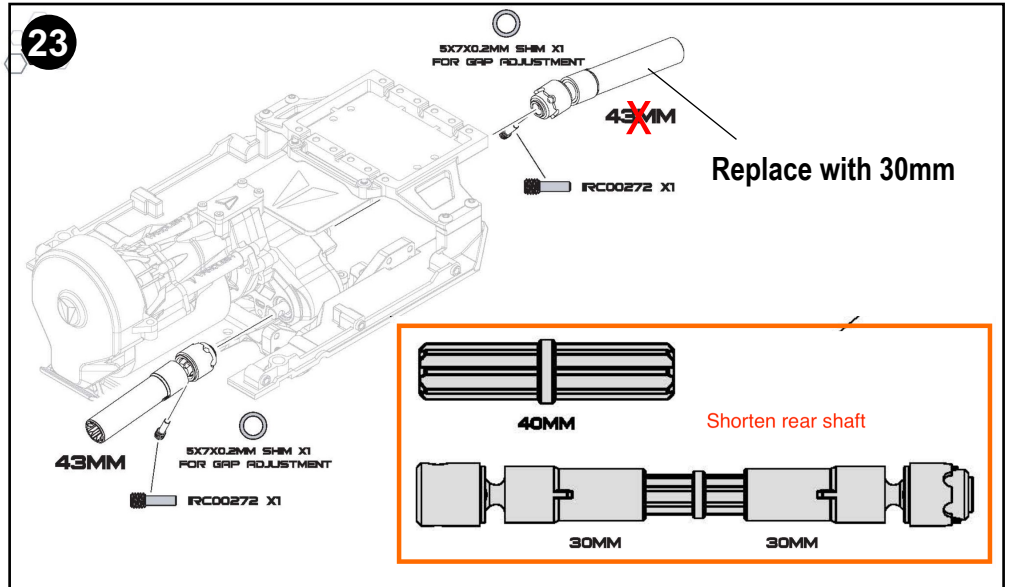
- Apply glue



23

For best results we also recommend shortening your rear links and rear driveshaft.

Shorten the rear drive shaft by replacing the rear longer 43mm outer half with the shorter 30mm part included on the H10 parts tree.



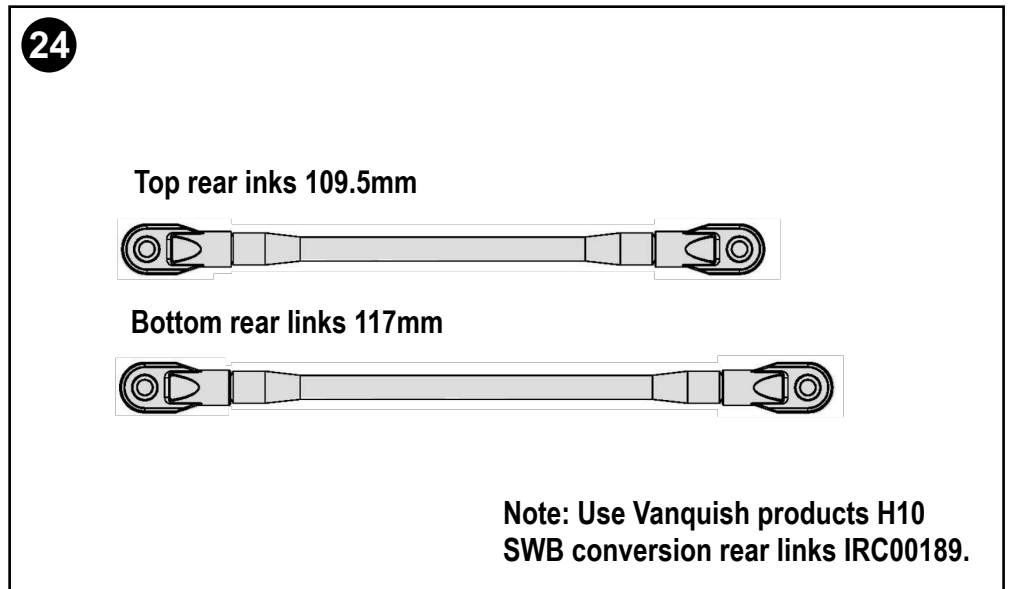
24

To shorten the wheelbase from 13.250" (336.6mm) to 12.875" (327.0mm)

We recommend the following lengths:

Top rear inks 109.5mm
Bottom rear links 117mm

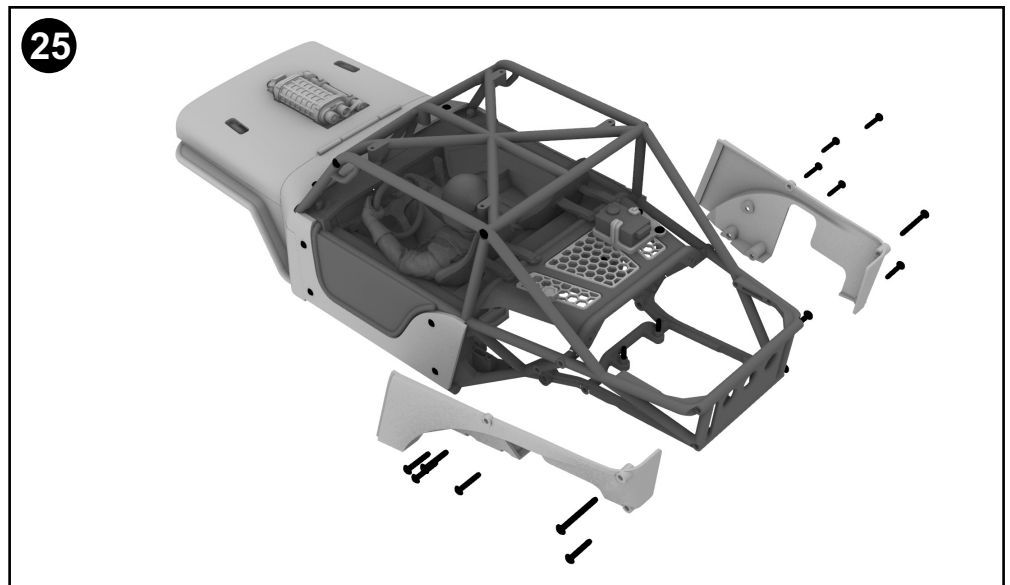
Note: Use Vanquish products H10 SWB conversion rear links IRC00189.



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Optional Long Wheel Base body.

The included optional rear body does not require the cage to be cut and will bolt to the cage with the stock screws.



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Comparison of the Long Wheel Base Vs. the Short Wheel Base variants

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Long Wheel Base version

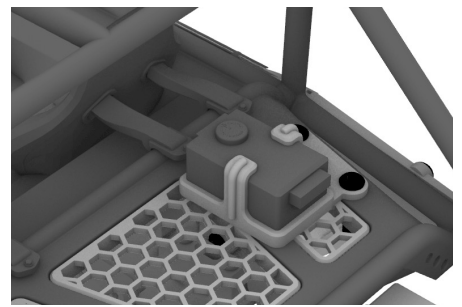
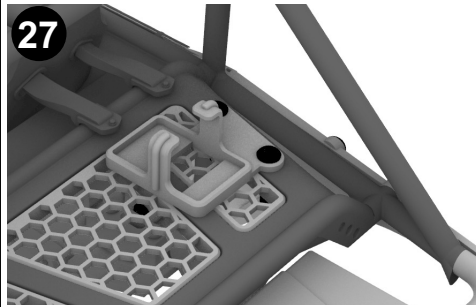


Short Wheel Base version

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Included in the set is a switch mount for the Hobbywing Fusion style switch if you choose to use those electronics.

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Your Terra Recon is complete.

28



Congratulations, your Terra Recon conversion is complete.

Note: If you are printing this conversion set, we recommend Bambu Lab PLA Matte for best results, however PLA has a lower melting point and you should not leave your interior stationary in direct sunlight for extended periods. Doing so might cause parts to warp or deform.