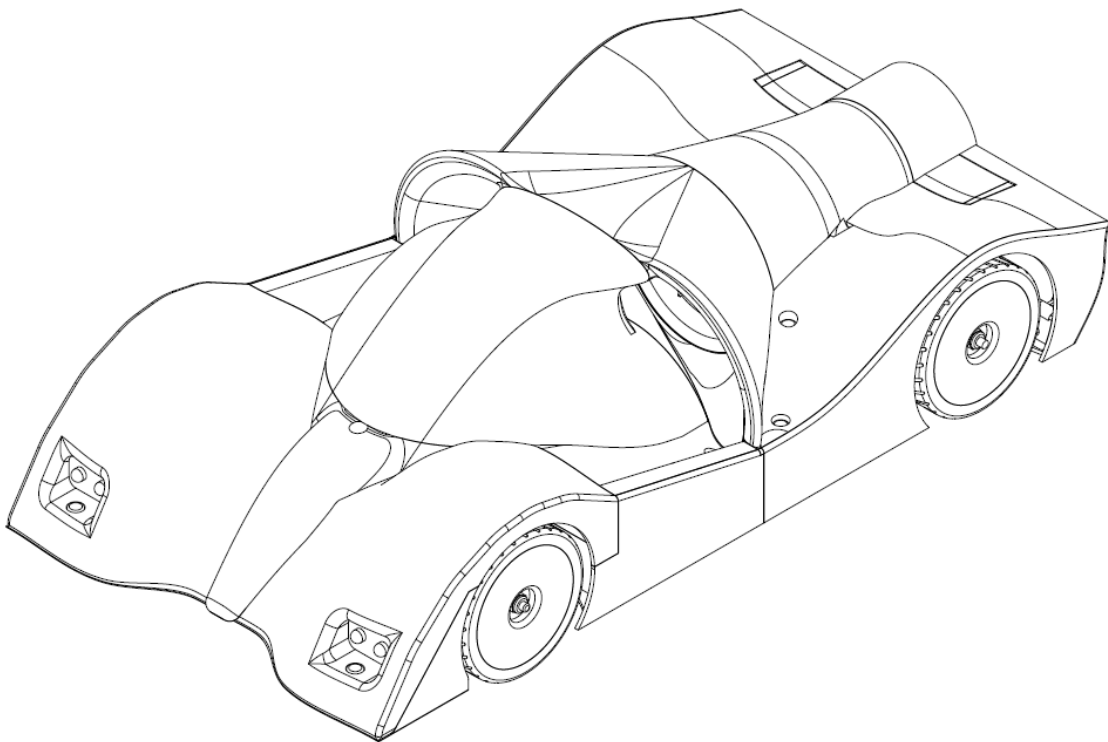




FBRC 1/18th EDF30 SLIPSTREAM MANUAL



Contents

Spec

Features

Materials & Components

Tools Required

3D Printed Parts Catalogue

Assembly 1 (Front Suspension)

Assembly 2 (Main Chassis)

Assembly 3 (Rear Suspension)

Assembly 4 (Electronics)

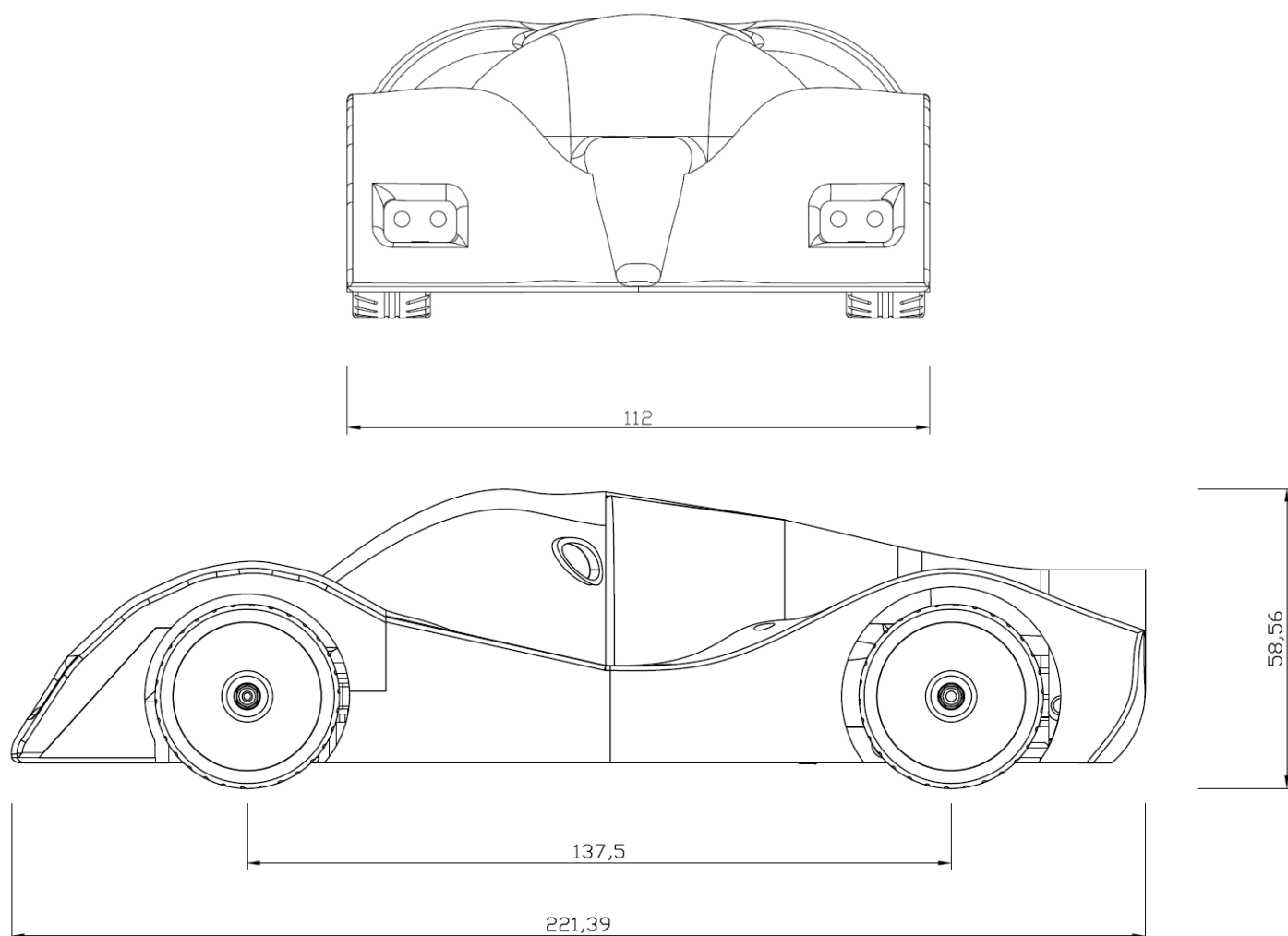
Wiring Diagram

Assembly 5 (Body Work)

Radio Setup



Specifications



FBRC EDF30 Slipstream

Scale: 1/18th

Length: 221.39mm

Width: 112mm

Height: 58.56mm

Weight: 314g

Wheel Base: 137.5mm

Tyre Diameter 36mm (15mm width)

Drivetrain: 30mm Brushed EDF

Power: 3.7v (1S LiPo - 300-1200Mah)



Features:

Dedicated RC platform for EDF population

1/18th scale

Powered by 30mm EDF (or 40mm 3d printed EDF)

Reverse thrust braking

Runs on a 3.7v 1S LiPo (300 to 1200Mah – Max size battery: 56x31x11mm)

Fully independent suspension

Operational head lights, tail lights and brake lights

Full equipped with metal bearing to ensure smooth running

Modular assembly to ease repair and maintenance

Can be fully printed on smaller format printers such as the A1 Mini (largest part 120mm X 110mm)

All parts have been designed to be printed as easily as possible

Prepared for future upgrades:

Rear wing options

FPV (with head tracking)

E-brakes

Brushless EDF

7.4v (2S LiPo) powered



Components & Materials

Components	
Component	Quantity
M2*6mm Bolt	5
M2*8mm Bolt	7
M2*12mm Bolt	1
M2*20mm Bolt	4
M2*25mm Bolt	3
M2 Nyloc Nut	7
M2 Washer	15
M2 Ball Joint	4
M2*25mm Threaded Rod	2
M2 Insert	1
M2*5mm (OD 4mm) Spacer	4
M1.7*6 Self Tapping Screw	30
Bearing 6x2x2.5mm	8
25mm Shock With:	4
M2 Shock Collets	8
M2*8mm Bolt	8
Tyre 36x15mm	4
230mm 1.75mm Filament (approx)	1
4x2mm Round Magnet	6

Electrical Items	
Component	Quantity
Mg90s Servo	1
30mm EDF	1
3mm LED (White/Clear)	4
3mm LED (Red)	6
Resistor - 27 Ohm	4
Resistor - 75 Ohm	6
22 AWG Wire @ 250-300mm (Approx)	10
22 AWG Wire @ 50mm (Approx)	16
2-20A PWM - On/Off Switch	2
PWM Signal Reverser	1
Receiver (RX)	1
7-15A ESC	1
300-1200MAh 1s Lipo (Max Size: 56x31x11)	1
Heat Shrink Of Various Sizes	
Compatible Electrical Plugs	

Tools Required

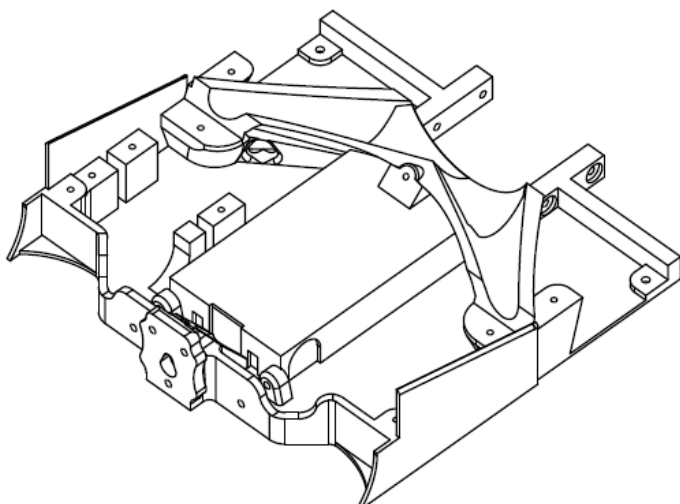
Tools Required
Solder
Superglue
1.5mm Allen Key/Hex Driver
Pair of Pliers
Flush Cutter
Cable Cutters/Strippers
Tweezers
Lighter or Heat gun (for Heat Shrink)
Philips/Crosshead Screwdriver
M0.9mm Drill Bit
M1.5/M1.7mm Drill bit
M2 Drill Bit
M3 Drill Bit
Hand Drill
Modeling Knife
Soldering Iron
Fine Grit Sandpaper
Needle File
Blue-Tac / Soldering Jig
Calipers/Vernier Gauge
M3 Double sided Tape



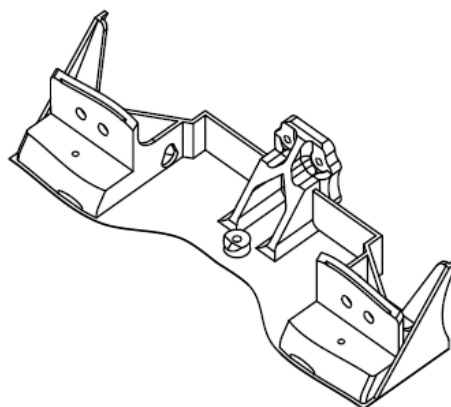
3D Printed Parts Catalogue

3D Printed Parts		
Part No.	Name	Quantity
PN 0001	Main Chassis	1
PN 0002	Front Subframe	1
PN 0003	Front Suspension Bulkhead	1
PN 0004	EDF Pod	1
PN 0005	Rear Subframe	1
PN 0006	30mm EDF Pod	1
PN 0007	30mm EDF Pod Intake	1
PN 0010	Front Shell	1
PN 0011	Intake Cowling	1
PN 0012	Canopy - Non FPV	1
PN 0013		
PN 0014	NS Intake Panel	1
PN 0015	OS Intake Panel	1
PN 0016	NS Rear Quarter Panel	1
PN 0017	OS Rear Quarter Panel	1
PN 0101	Steering Bar Upright	2
PN 0102	Steering Bar	1
PN 0103	Steering Servo Link	1
PN 0104	Steering Servo Plate	1
PN 0105	Battery Tray	1
PN 0111	OS Front Lower Suspension Arm	1
PN 0112	NS Front Lower Suspension Arm	1
PN 0113	OS Front Upper Suspension Arm	1
PN 0114	NS Front Upper Suspension Arm	1
PN 0115	OS Front Suspension Upright	1
PN 0116	NS Front Suspension Upright	1
PN 0117	OS Front Hub Carrier	1
PN 0118	NS Front Hub Carrier	1
PN 0121	OS Rear Lower Suspension Arm	1
PN 0122	NS Rear Lower Suspension Arm	1
PN 0123	OS Rear Upper Suspension Arm	1
PN 0124	NS Rear Upper Suspension Arm	1
PN 0125	OS Rear Suspension Upright	1
PN 0126	NS Rear Suspension Upright	1
PN 0201	Wheel Hub For 36x15 Tyre	4
PN 0202	Tyre 36x15	4
PN 0301	NS Rear Wing Blank	1
PN 0302	OS Rear Wing Blank	1
PN 0303		
PN 0401	Prop 5 Blade 40mm P35	1
PN 0402	Prop 6 Blade 40mm P35	1
PN 0411	Prop 3 Blade 40mm P40	1
PN 0412	Prop 4 Blade 40mm P40	1
PN 0413	Prop 5 Blade 40mm P40	1
PN 0414	Prop 6 Blade 40mm P40	1
PN 0415	Prop 10 Blade 40mm P40	1
PN 0421	Prop 5 Blade 40mm P45	1
PN 0422	Prop 6 Blade 40mm P45	1
PN 0423	Prop 10 Blade 40mm P45	1
PN 0501	EDF Pod Test Stand	1

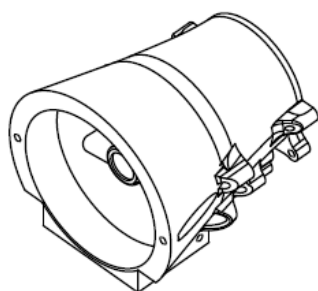




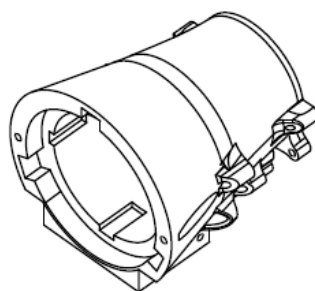
Part No 0001
Main Chassis



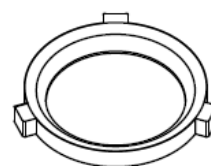
Part No 0002
Front Subframe



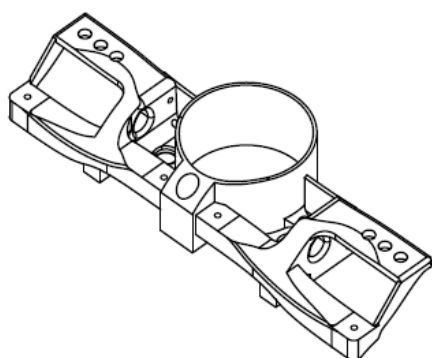
Part No 0004
EDF Pod



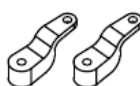
Part No 0006
30mm EDF Pod



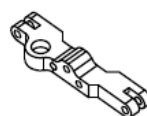
Part No 0007
30mm EDF Pod
Intake



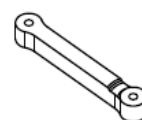
Part No 0005
Rear Subframe



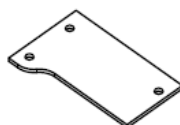
Part No 0101
Steering Bar
Upright (x2)



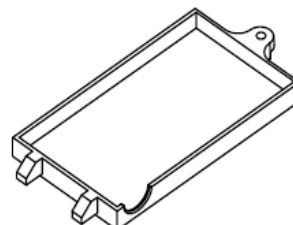
Part No 0102
Steering Bar



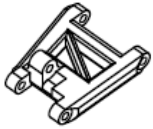
Part No 0103
Steering Servo
Link



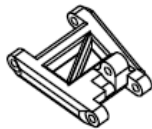
Part No 0104
Steering Servo
Plate



Part No 0105
Battery Tray



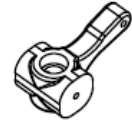
Part No 0111
OS Front Lower
Suspension Arm



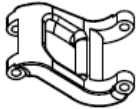
Part No 0112
NS Front Lower
Suspension Arm



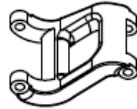
Part No 0117
OS Front Hub
Carrier



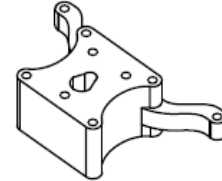
Part No 0118
NS Front Hub
Carrier



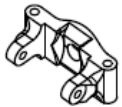
Part No 0113
OS Front Upper
Suspension Arm



Part No 0114
NS Front Upper
Suspension Arm



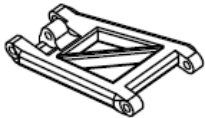
Part No 0003
Front Suspension
Bulkhead



Part No 0115
OS Front
Suspension
Upright



Part No 0116
NS Front
Suspension
Upright



Part No 0121
OS Rear Lower
Suspension Arm



Part No 0122
NS Rear Lower
Suspension Arm



Part No 0302
OS Rear Wing
Blank



Part No 0301
NS Rear Wing
Blank



Part No 0123
OS Rear Upper
Suspension Arm



Part No 0124
NS Rear Upper
Suspension Arm



Part No 0202
Tyre 36x15



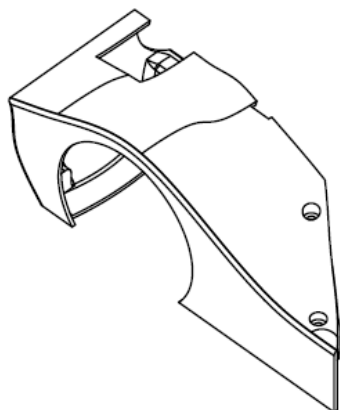
Part No 0201
Front Wheel Hub
(For Tyre 36x15)



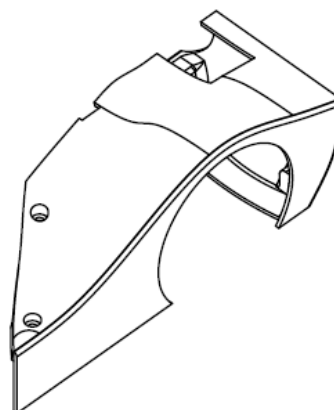
Part No 0125
OS Rear
Suspension
Upright



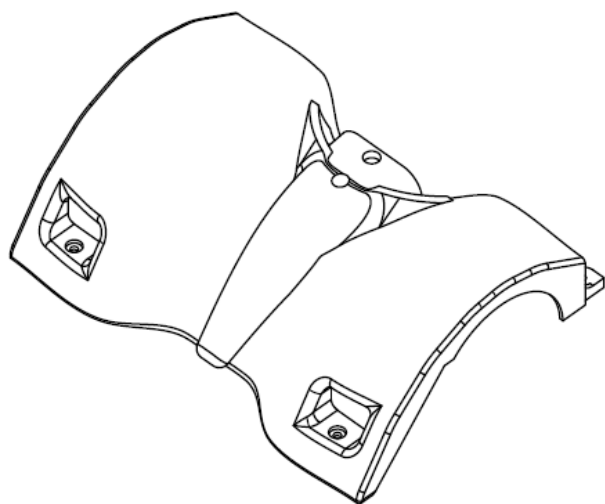
Part No 0126
NS Rear
Suspension
Upright



Part No 0015
OS Rear Quarter
Panel



Part No 0014
NS Rear Quarter
Pannel



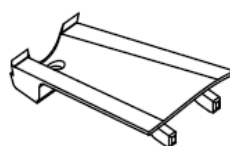
Part No 0010
Front Shell



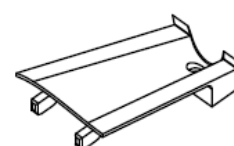
Part No 0012
Canopy - Non FPV



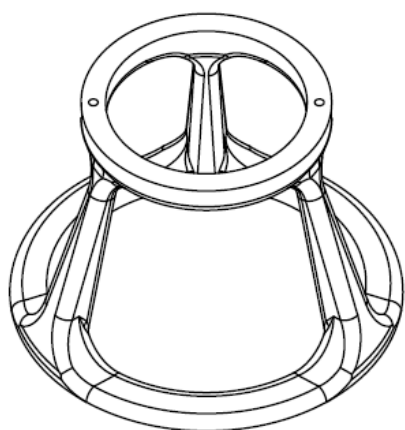
Part No 0011
Intake Cowling



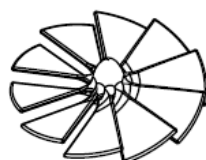
Part No 0015
OS Intake Panel



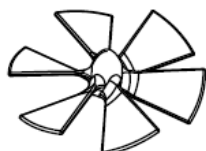
Part No 0014
NS Intake Panel



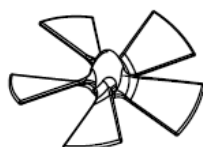
Part No 0501
EDF Pod Test
Stand



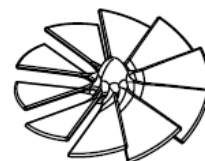
Part No 0415
Prop 10 Blade
40mm P40



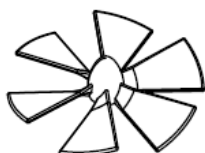
Part No 0414
Prop 6 Blade
40mm P40



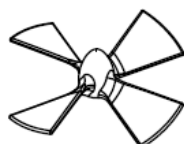
Part No 0413
Prop 5 Blade
40mm P40



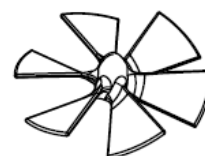
Part No 0423
Prop 10 Blade
40mm P45



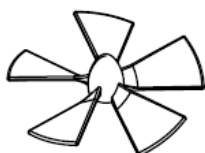
Part No 0402
Prop 6 Blade
40mm P35



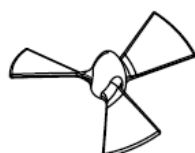
Part No 0412
Prop 4 Blade
40mm P40



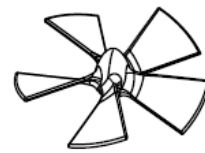
Part No 0422
Prop 6 Blade
40mm P45



Part No 0401
Prop 5 Blade
40mm P35



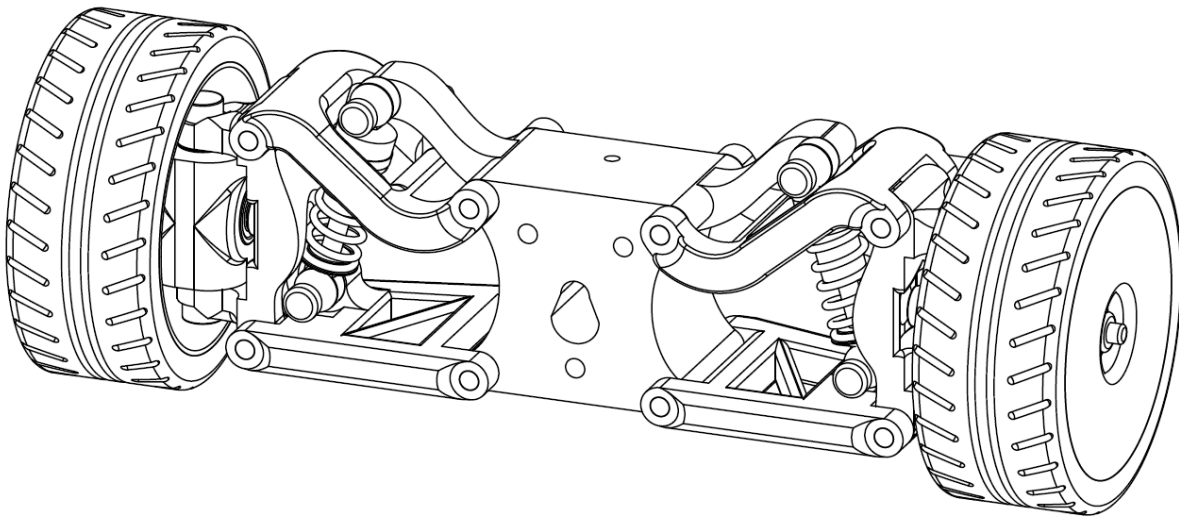
Part No 0411
Prop 3 Blade
40mm P40



Part No 0421
Prop 5 Blade
40mm P45

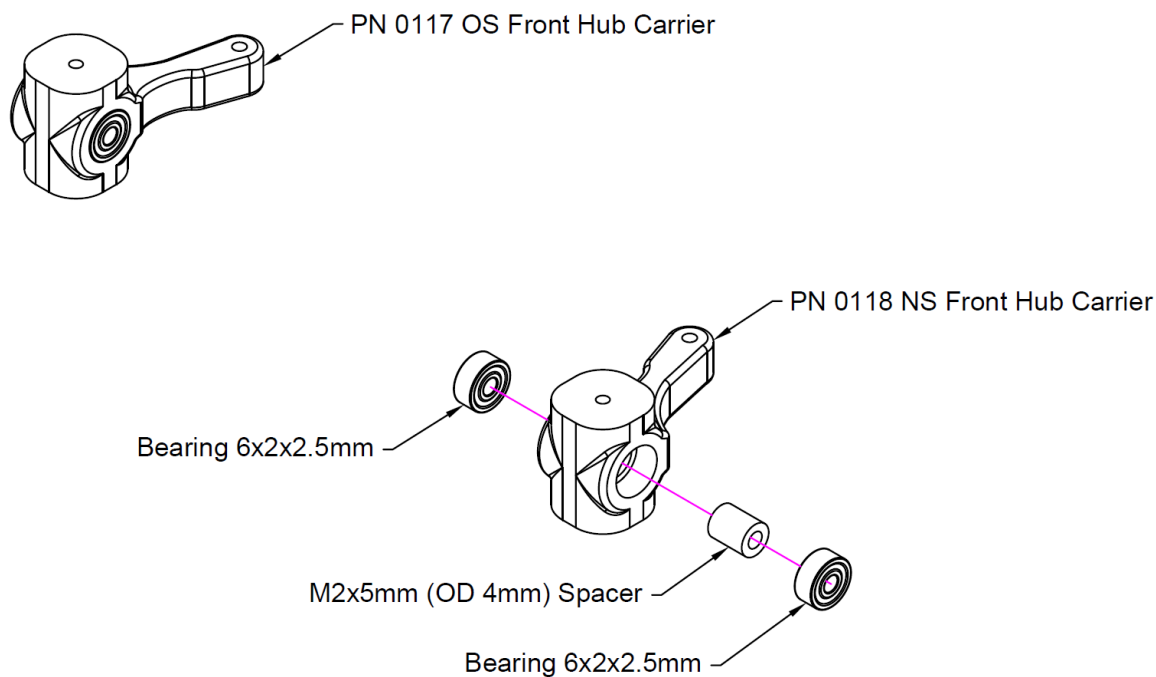
ASSEMBLY 1

(AS 01) Front Suspension

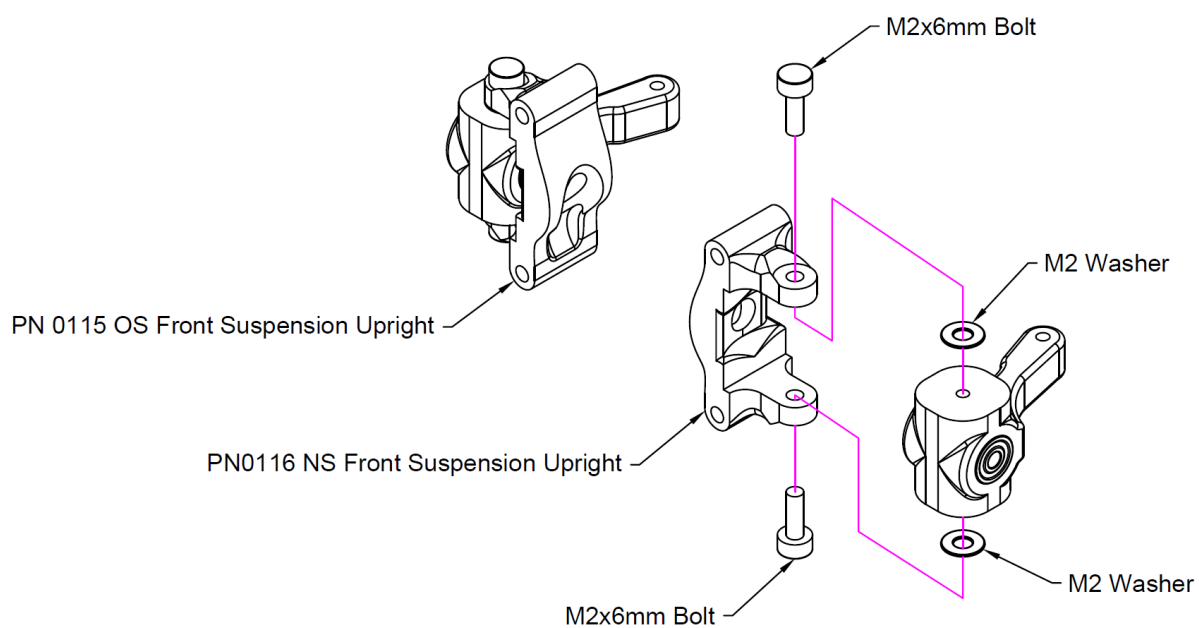


AS 01 Front Suspension Assembly				
3D Printed Parts			Components	
Part No.	Name	Quantity	Component	Quantity
PN 0003	Front Suspension Bulkhead	1	M2*6mm Bolt	4
PN 0111	OS Front Lower Suspension Ar	1	M2*20mm Bolt	2
PN 0112	NS Front Lower Suspension Ar	1	M2 Nyloc Nut	2
PN 0113	OS Front Upper Suspension Ar	1	M2*5mm (OD 4mm) Spacer	2
PN 0114	NS Front Upper Suspension Ar	1	M2 Washer	4
PN 0115	OS Front Suspension Upright	1	25mm Shock With:	2
PN 0116	NS Front Suspension Upright	1	M2 Shock Collets	4
PN 0117	OS Front Hub Carrier	1	M2*8mm Bolt	4
PN 0118	NS Front Hub Carrier	1	Bearing 6x2x2.5mm	4
PN 0201	Wheel Hub For 36x15 Tyre	2	M2 Ball Joint	2
PN 0202	Tyre 36x15mm	2	Tyre 36x15mm	2
			180mm 1.75mm Filament (approx)	1

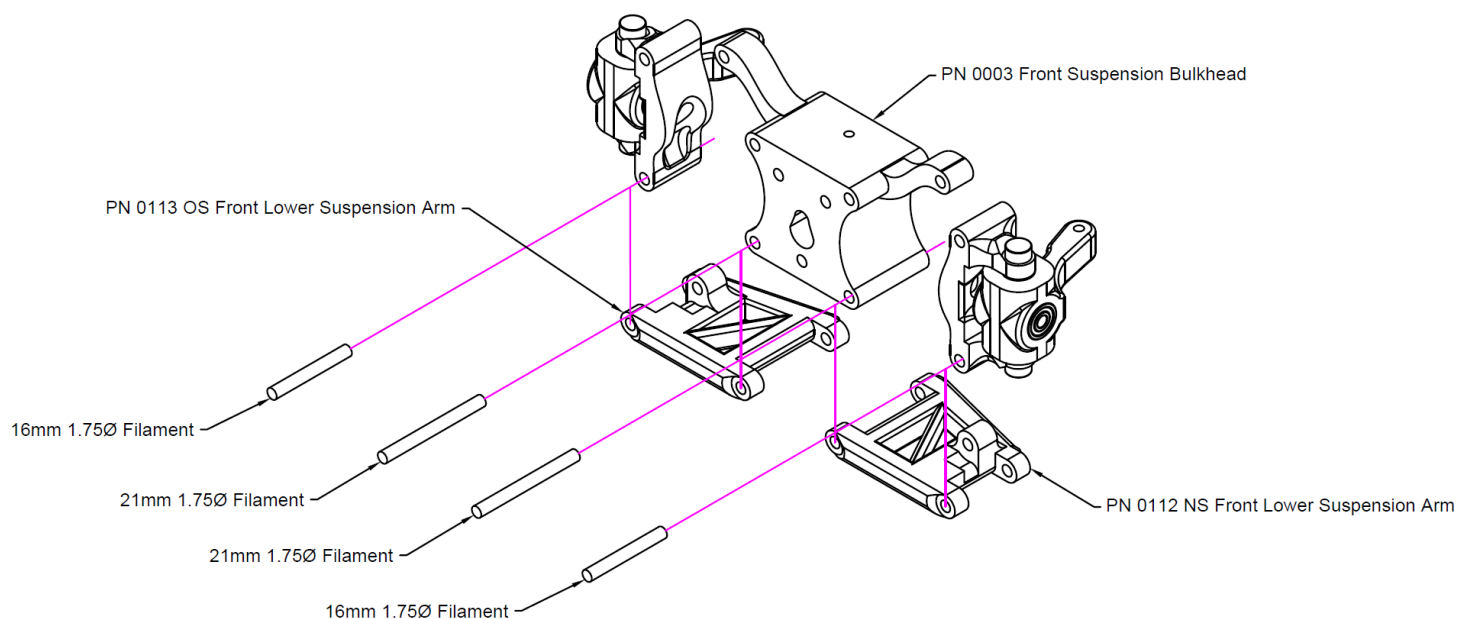
AS01 STEP 1



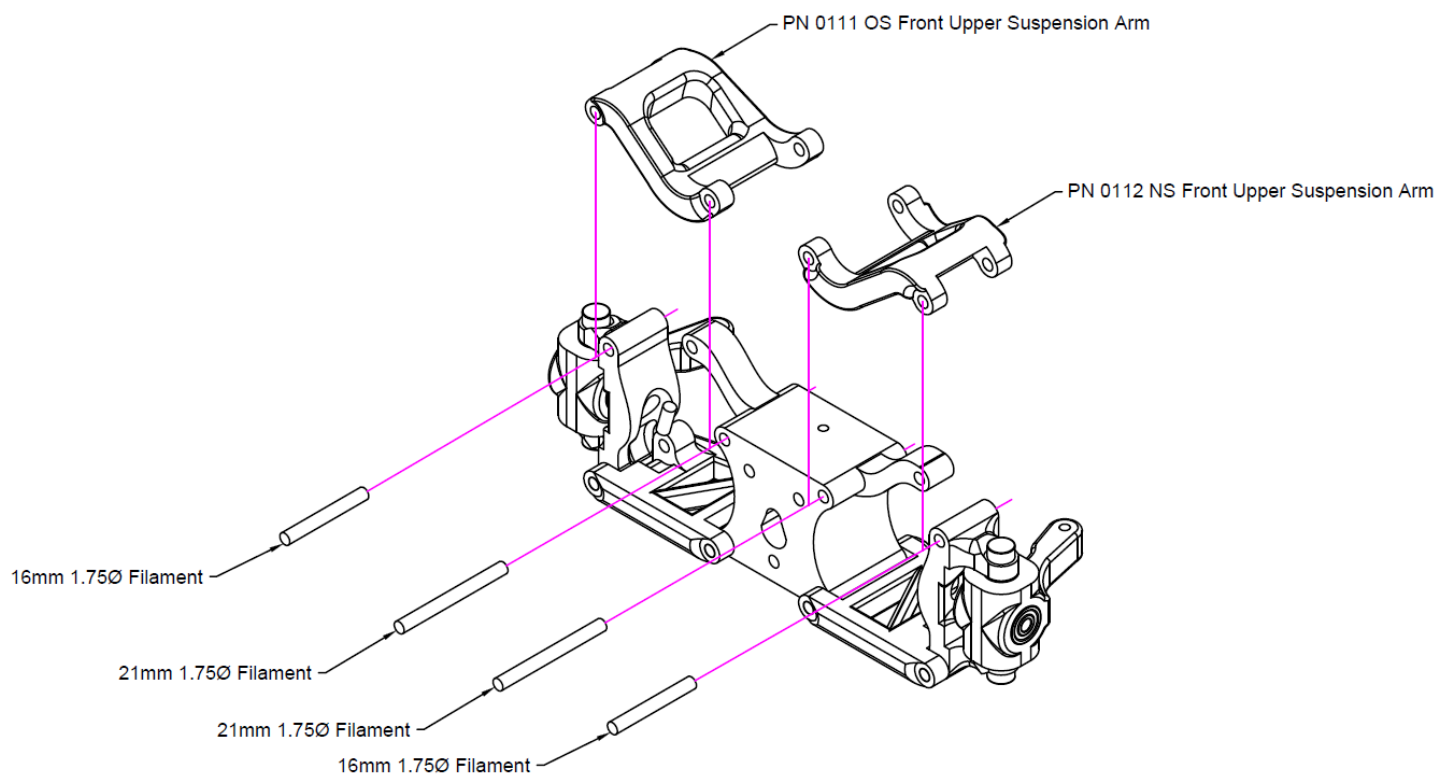
AS01 STEP 2



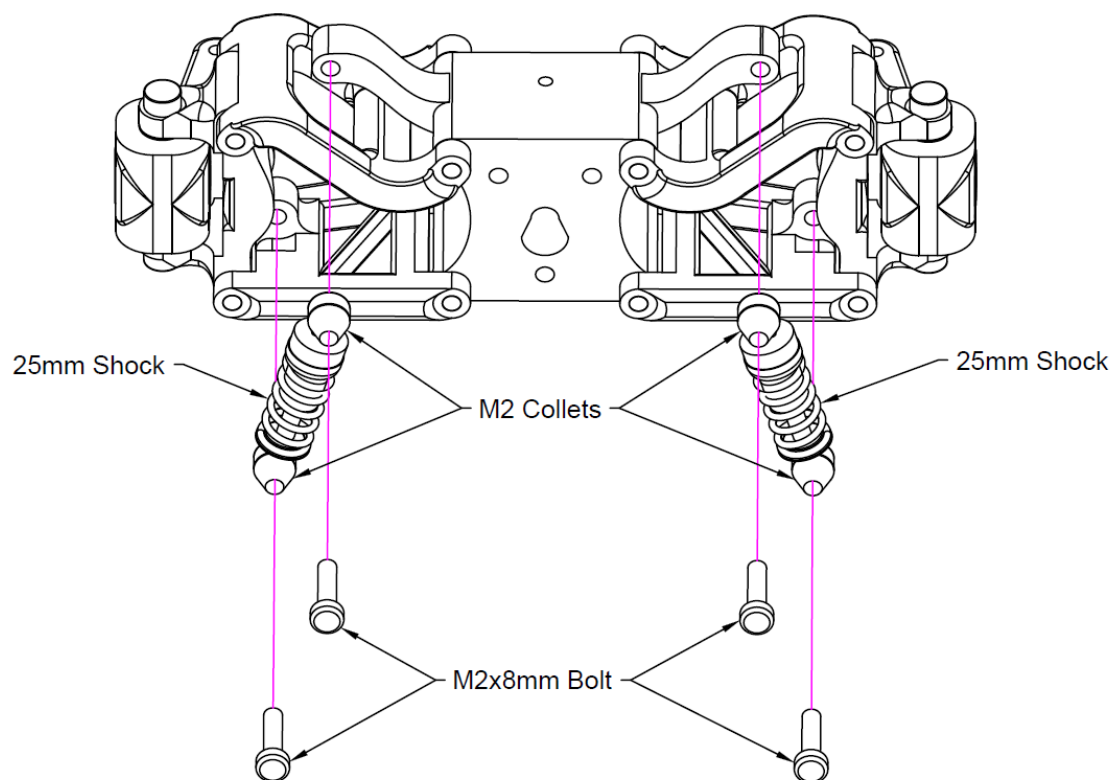
AS01 STEP 3



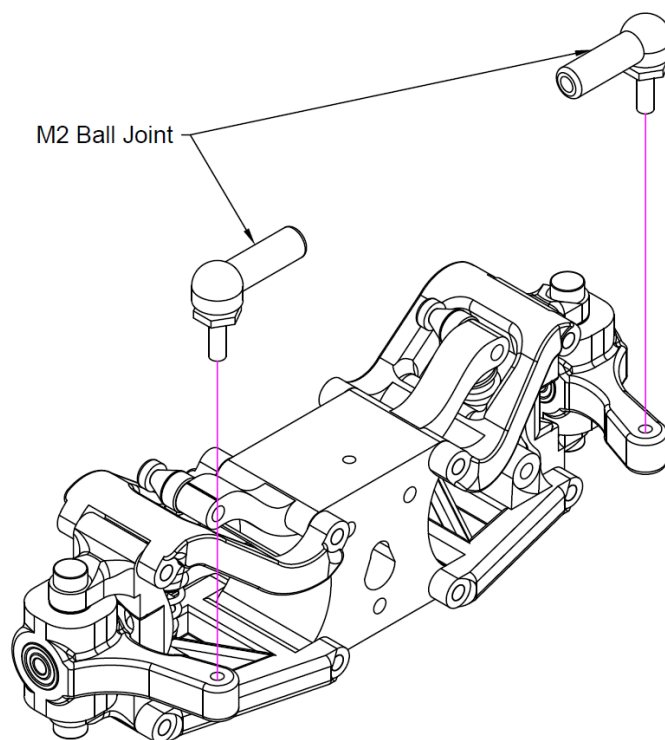
AS01 STEP 4



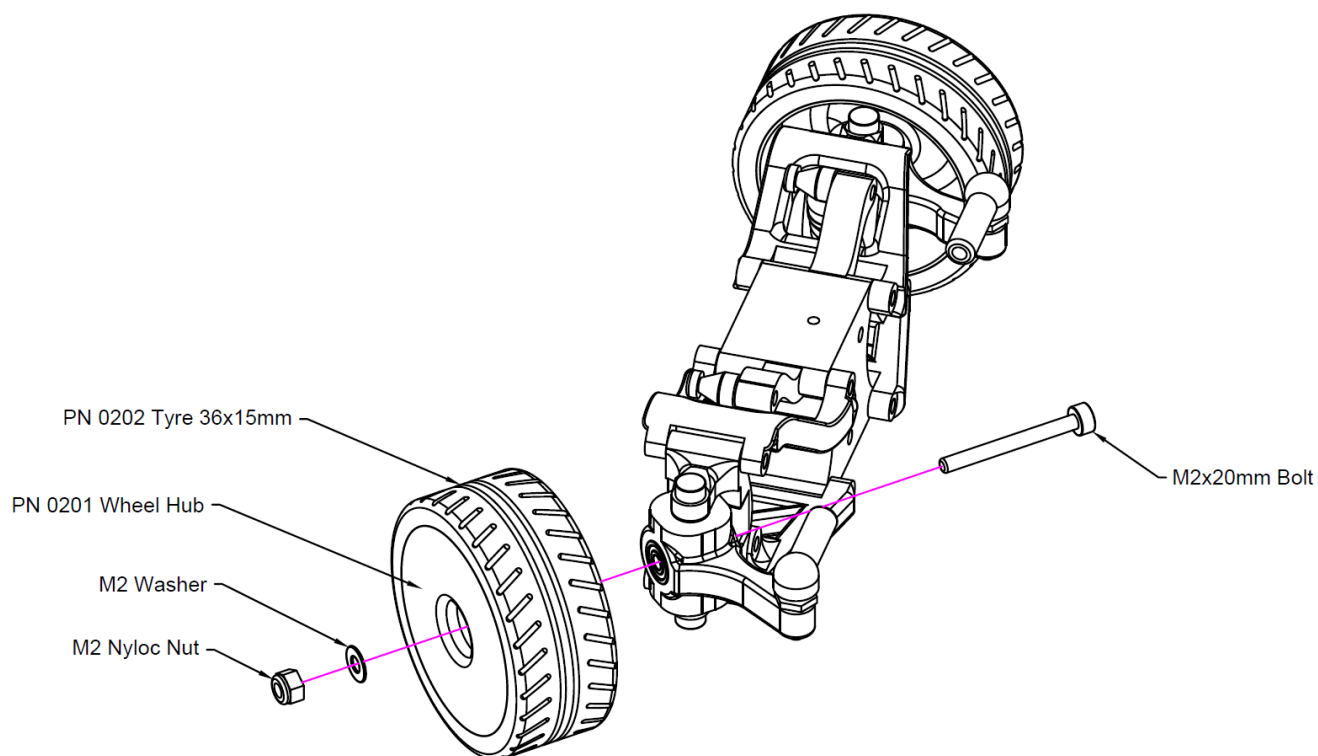
AS01 STEP 5



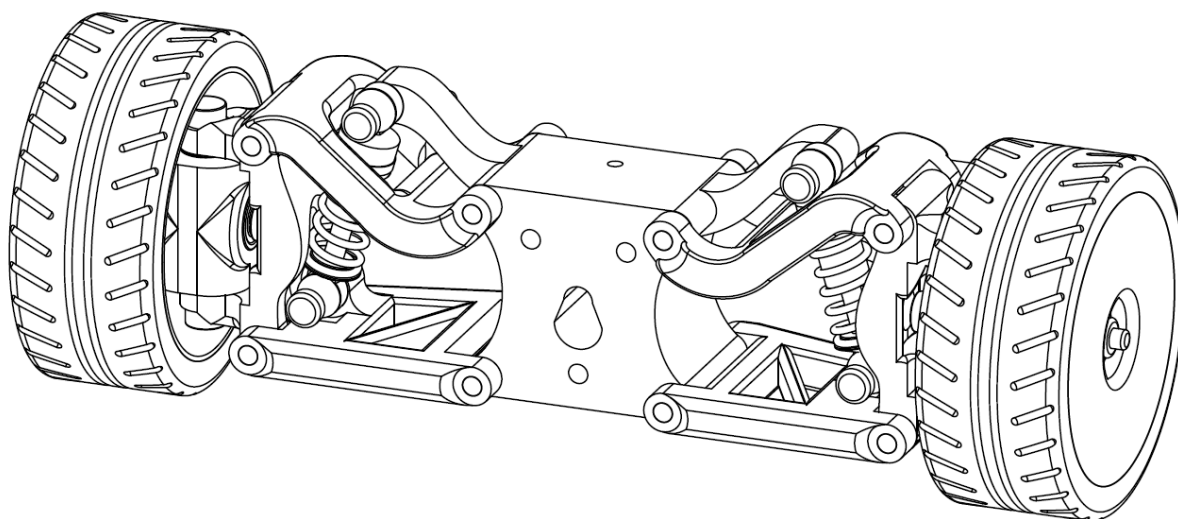
AS01 STEP 6



AS01 STEP 7

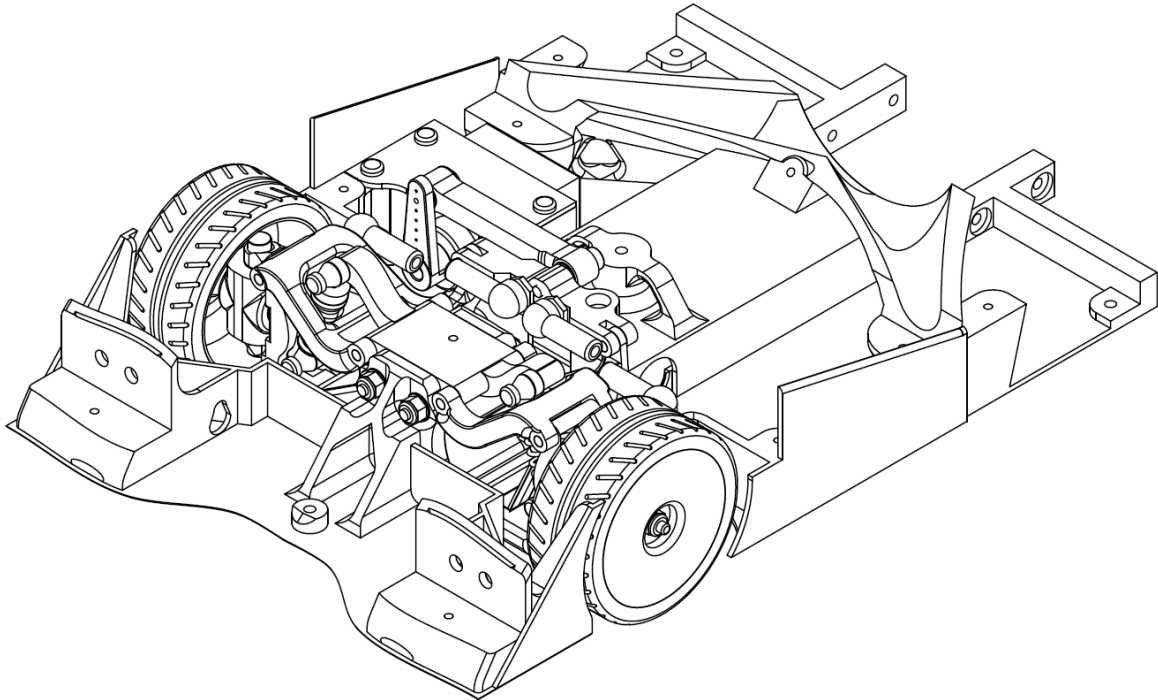


AS01 Complete



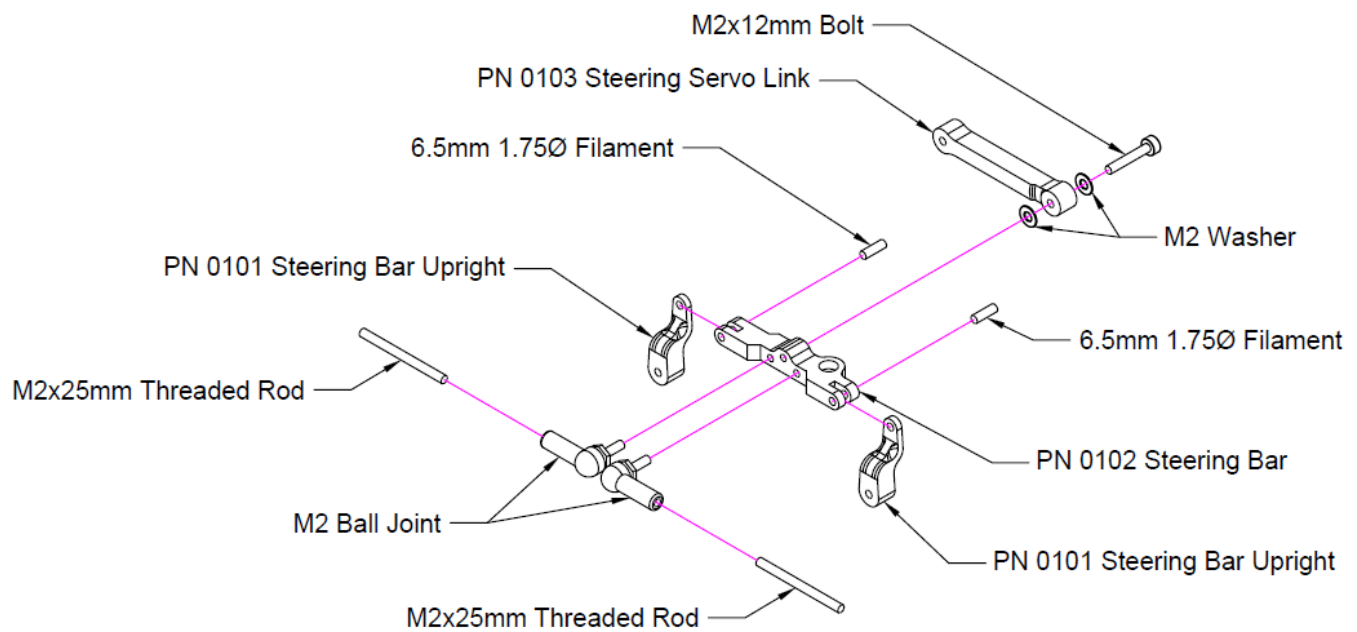
ASSEMBLY 2

(AS 02) Main Chassis

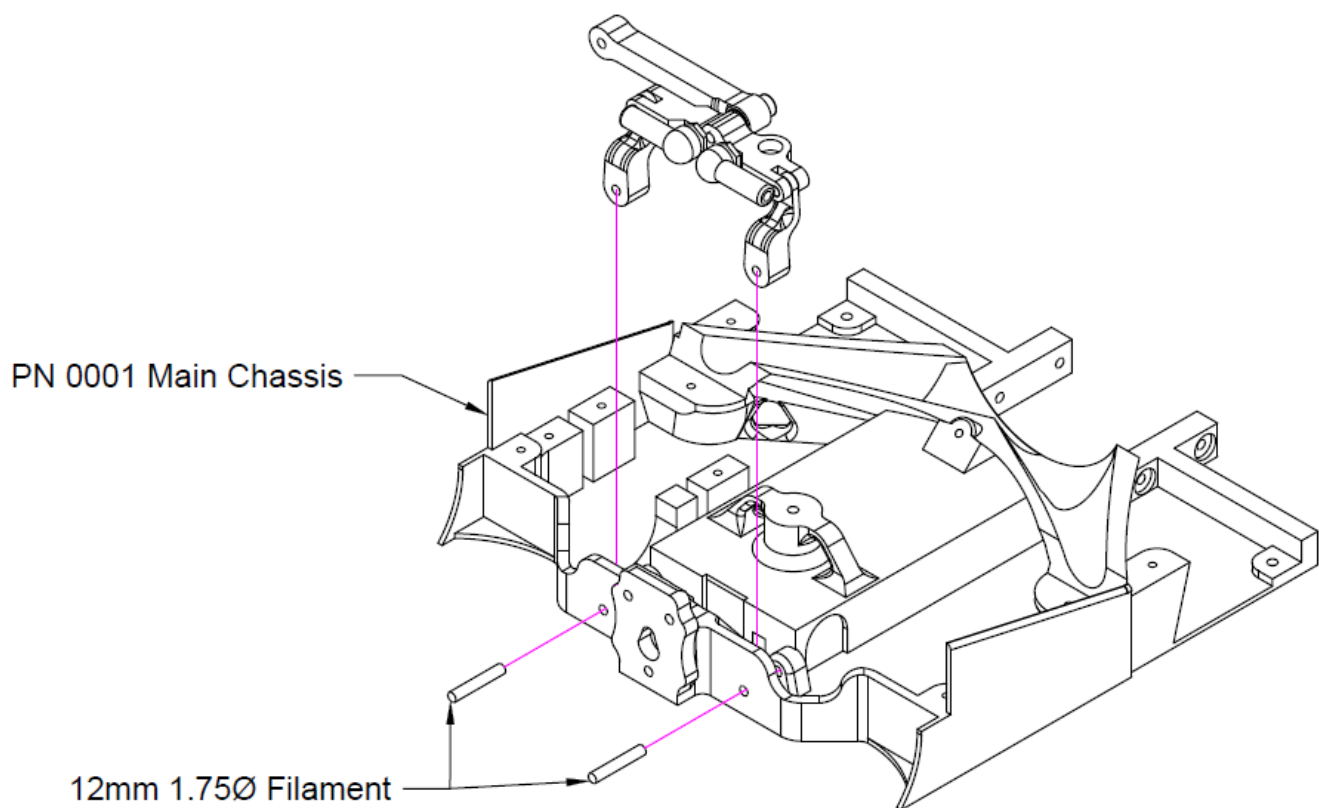


AS 02 Main Chassis Assembly				
3D Printed Parts			Components	
Part No.	Name	Quantity	Name	Quantity
PN 0001	Main Chassis	1	M2*25mm Bolt	3
PN 0002	Front Subframe	1	M2*12mm Bolt	1
PN 0101	Steering Bar Upright	2	M2*6mm Bolt	1
PN 0102	Steering Bar	1	M2 Washer	8
PN 0103	Steering Servo Link	1	M2 Nyloc Nut	3
PN 0104	Steering Servo Plate	1	M2 Ball Joint	2
PN 0105	Battery Tray	1	M1.7*6 Self Tapping Screw	3
Assemblies			Mg90s Servo	1
			50mm 1.75mm Filament (Approx)	1
			M2*4 Insert	1
AS 01	Front Suspension Assembly	1	M2*25mm Threaded Rod	2

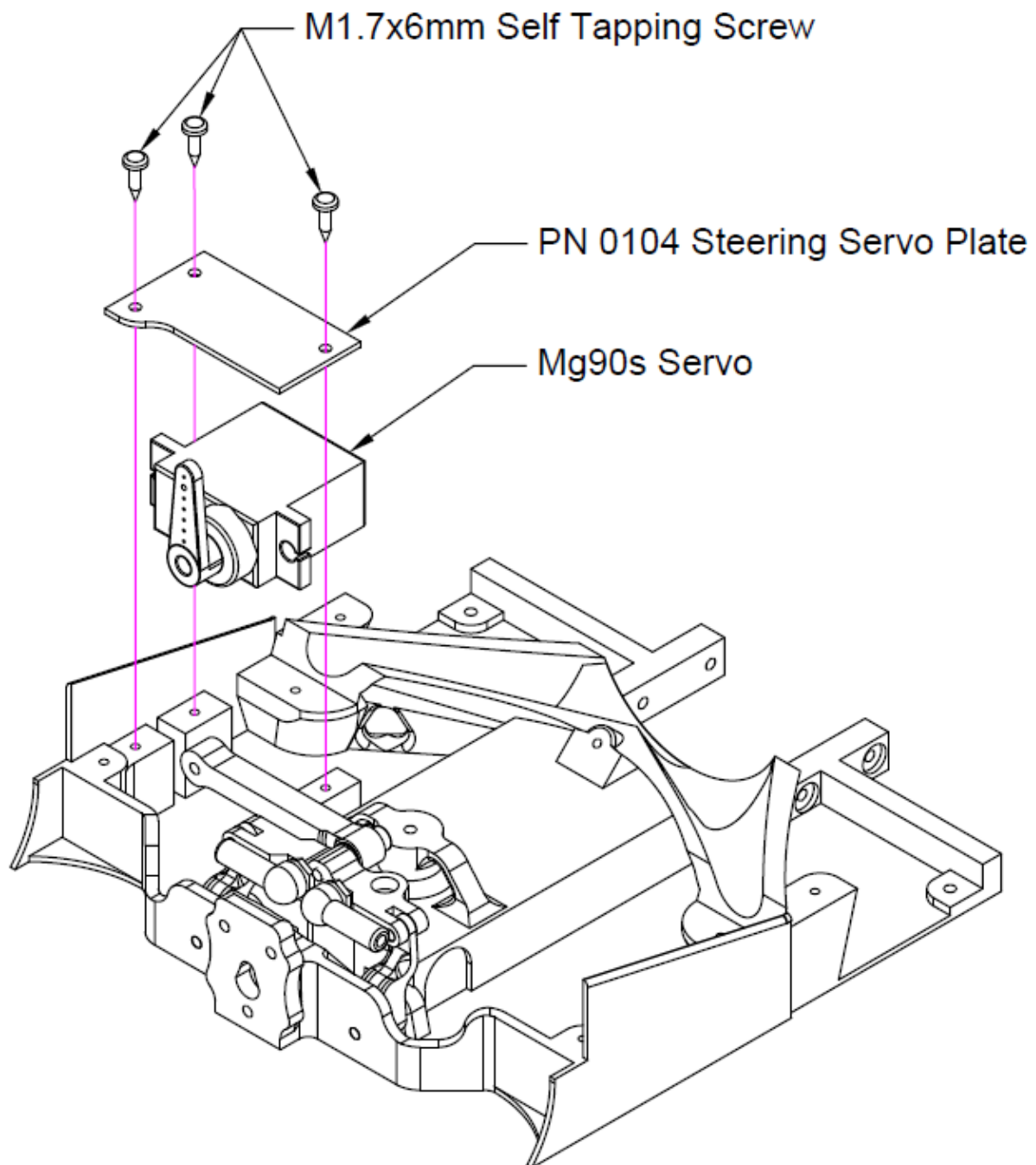
AS02 STEP 1



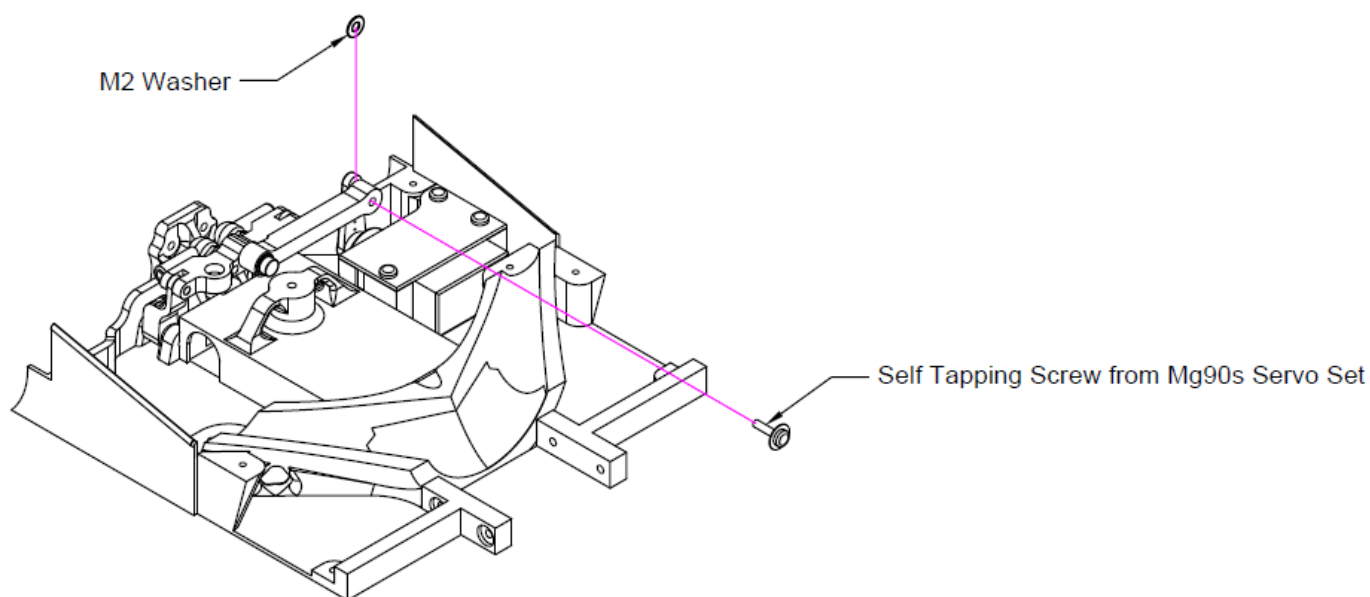
AS02 STEP 2



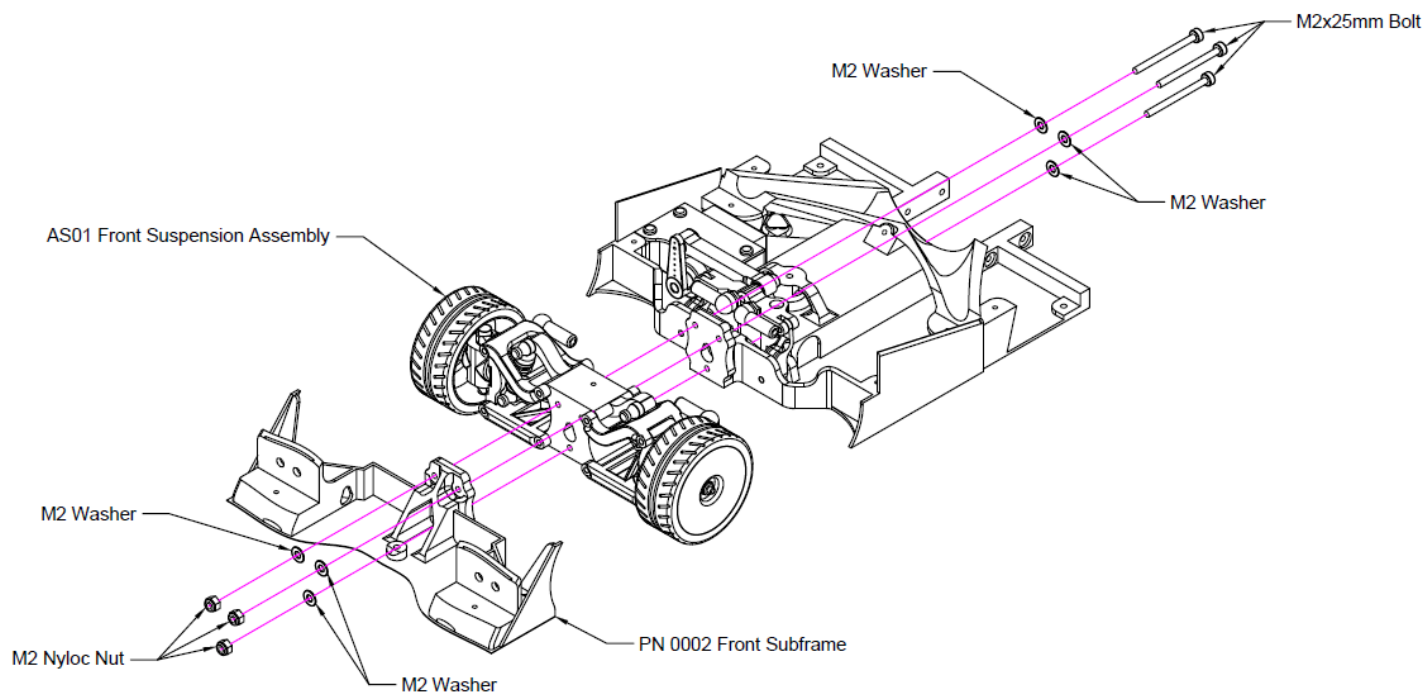
AS02 STEP 3



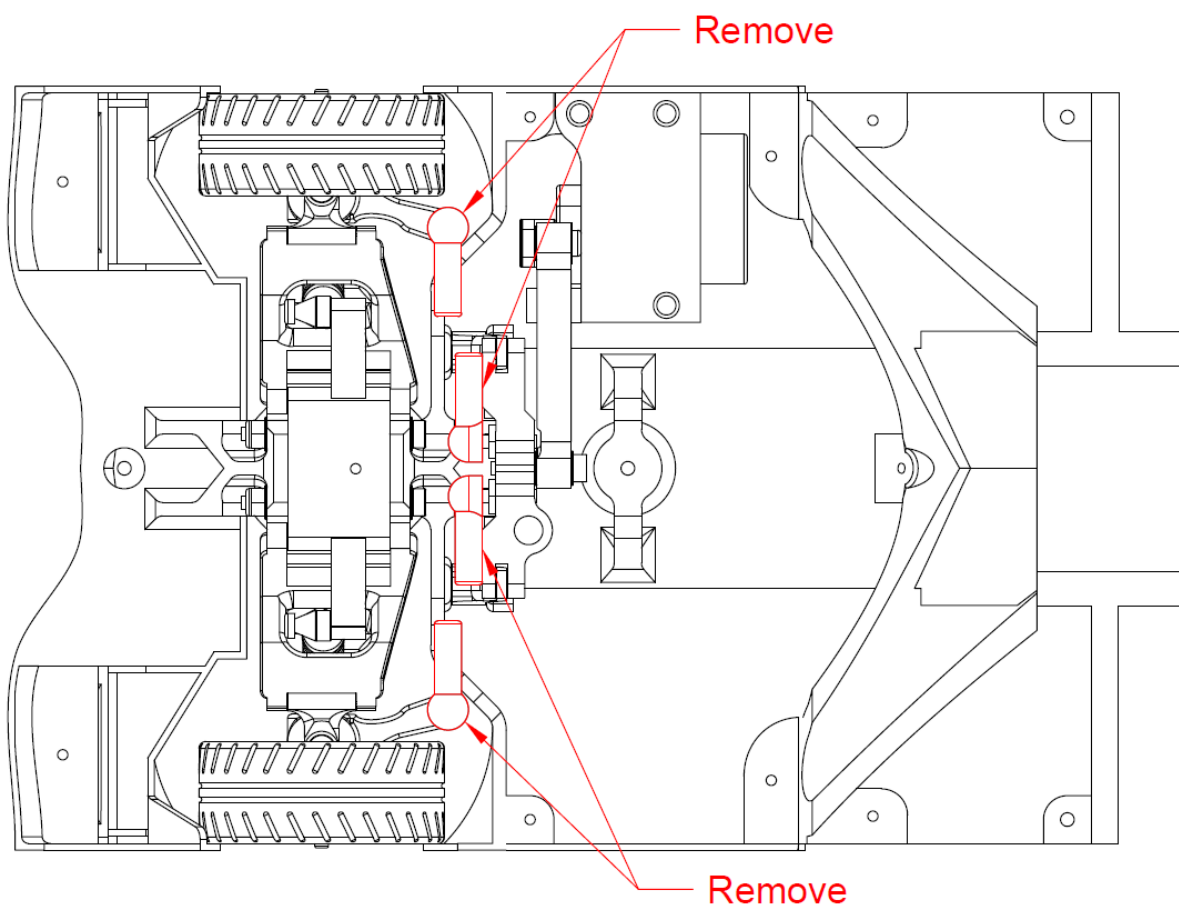
AS02 STEP 4



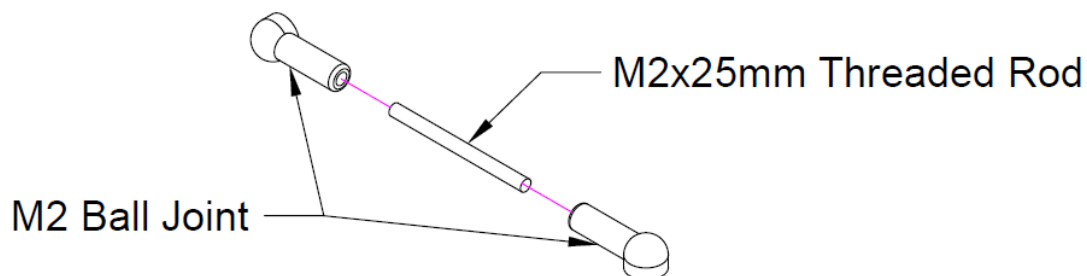
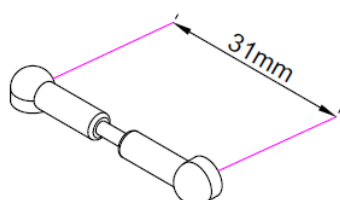
AS02 STEP 5



AS02 STEP 6

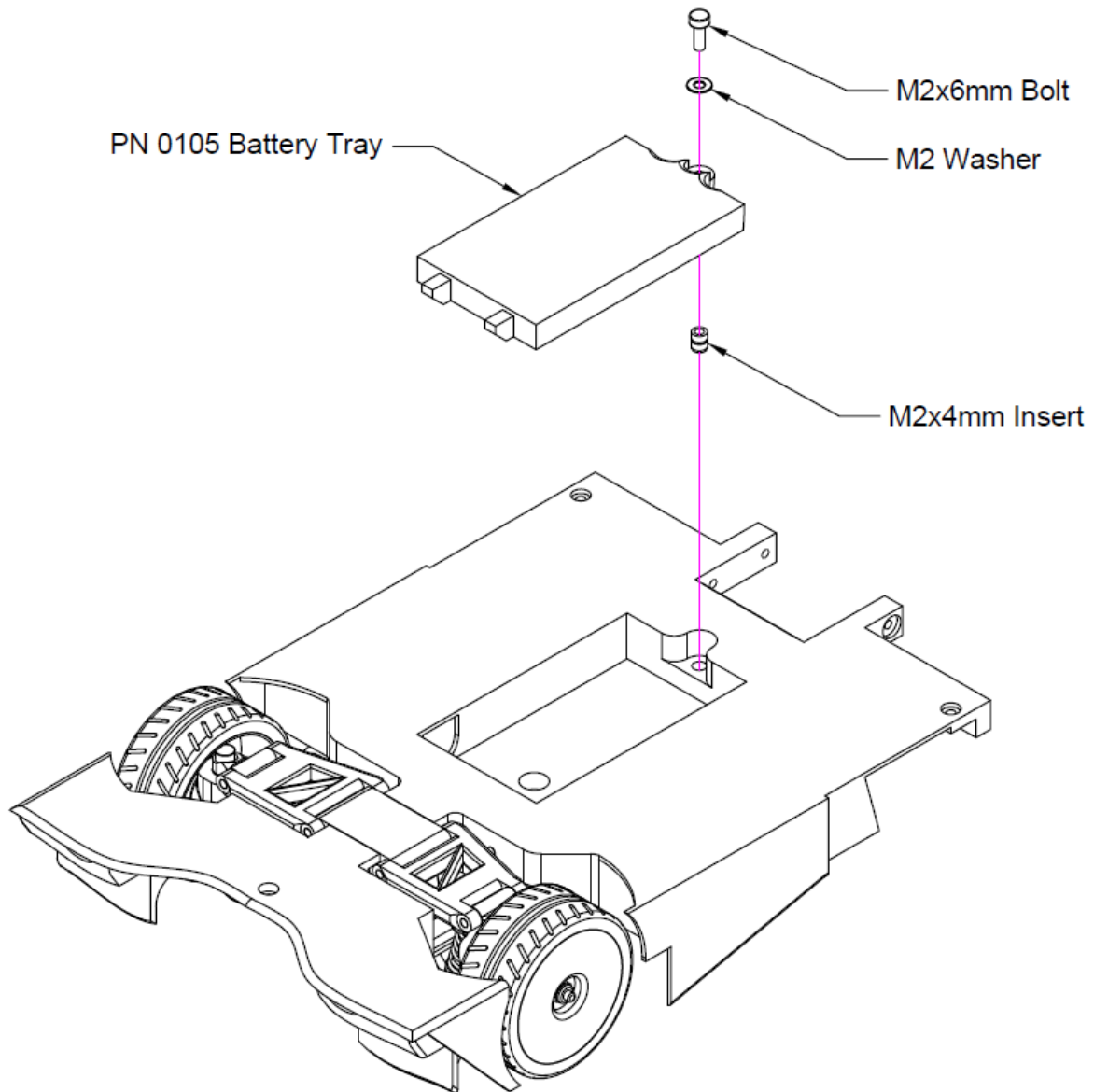


AS02 STEP 7

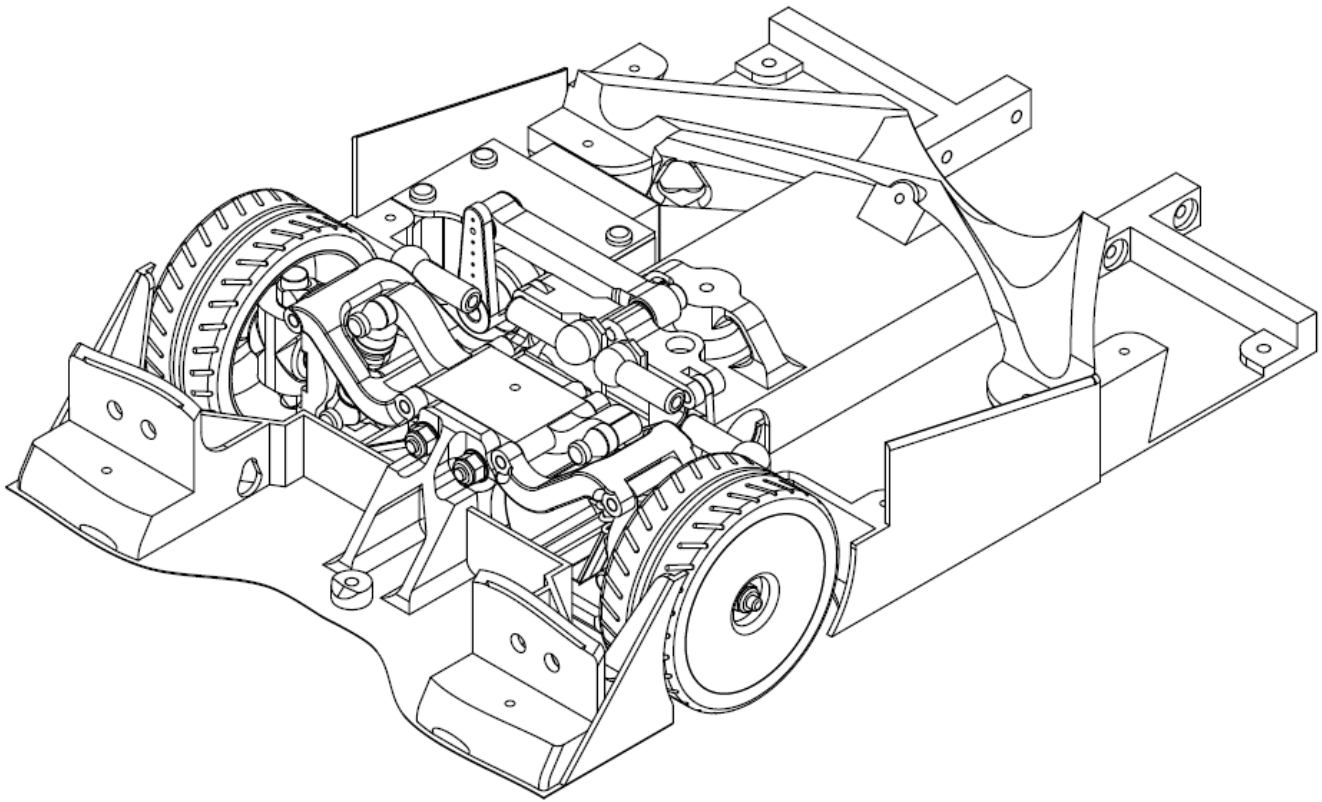


After adjusted to correct length, reattach to the ball joints

AS02 STEP 8

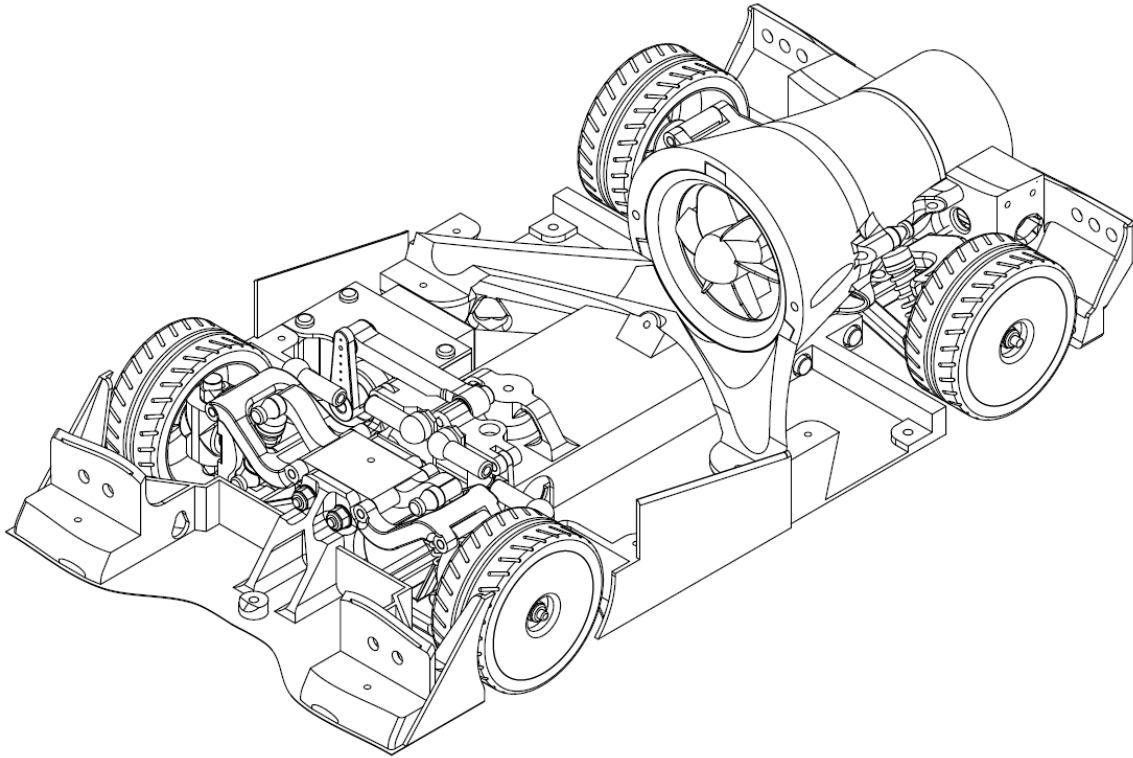


AS02 Complete



ASSEMBLY 3

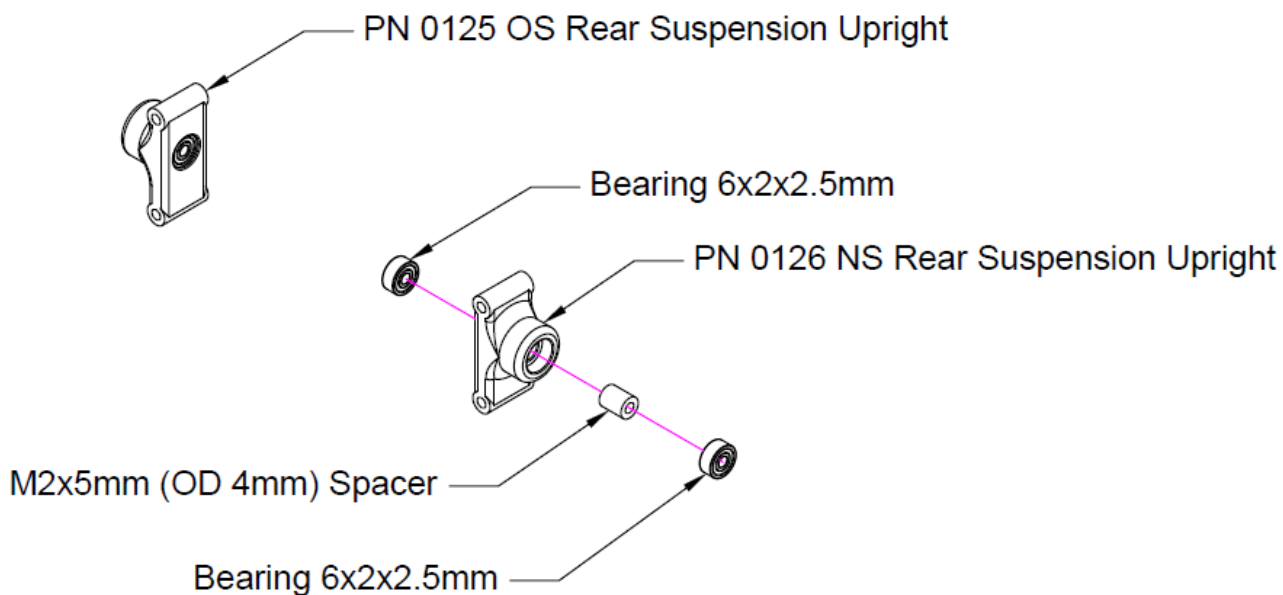
(AS 03) Rear Suspension



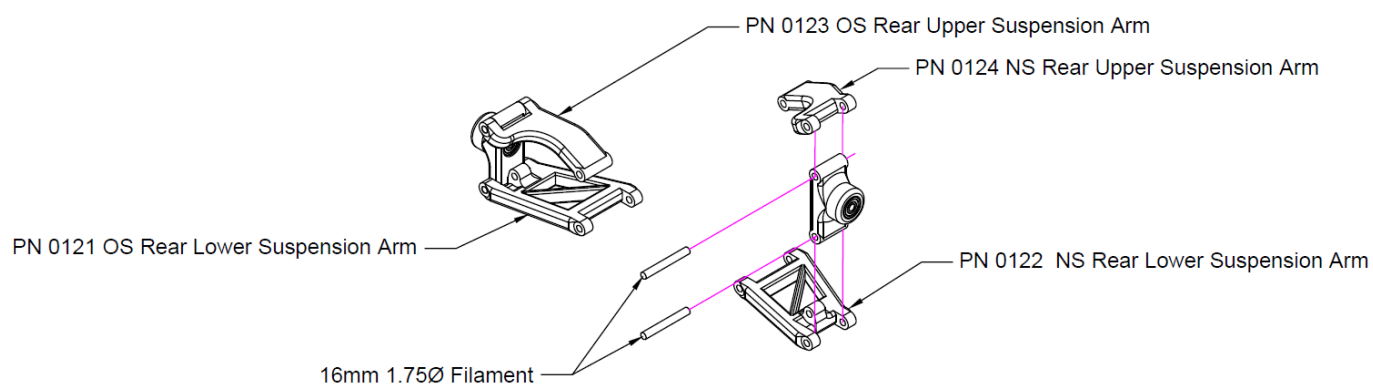
AS 03 Rear suspension Assembly

3D Printed Parts			Components	
Part No.	Name	Quantity	Name	Quantity
PN 0004	EDF Pod	1	M2*8mm Bolt	5
PN 0005	Rear Subframe	1	M2*20mm Bolt	2
PN 0006	30mm EDF Pod	1	M2 Nyloc Nut	2
PN 0007	30mm EDF Pod Intake	1	M2*5mm (OD 4mm) Spacer	2
PN 0121	OS Rear Lower Suspension Arm	1	M2 Washer	2
PN 0122	NS Rear Lower Suspension Arm	1	25mm Shock With:	2
PN 0123	OS Rear Upper Suspension Arm	1	M2 Shock Collets	4
PN 0124	NS Rear Upper Suspension Arm	1	M2*8mm Bolt	4
PN 0125	OS Rear Suspension Upright	1	Bearing 6x2x2.5mm	4
PN 0126	NS Rear Suspension Upright	1	M1.7*6 Self Tapping Screw	2
PN 0201	Front Wheel Hub	2	30mm EDF	1
PN 0202	Tyre 36x15mm	2	8222 DC 3V Motor	1
PN 0400	40mm Propeller Option	1		
Assemblies				
AS 01	Front Suspension Assembly	1		
AS 02	Main Chassis Assembly	1		

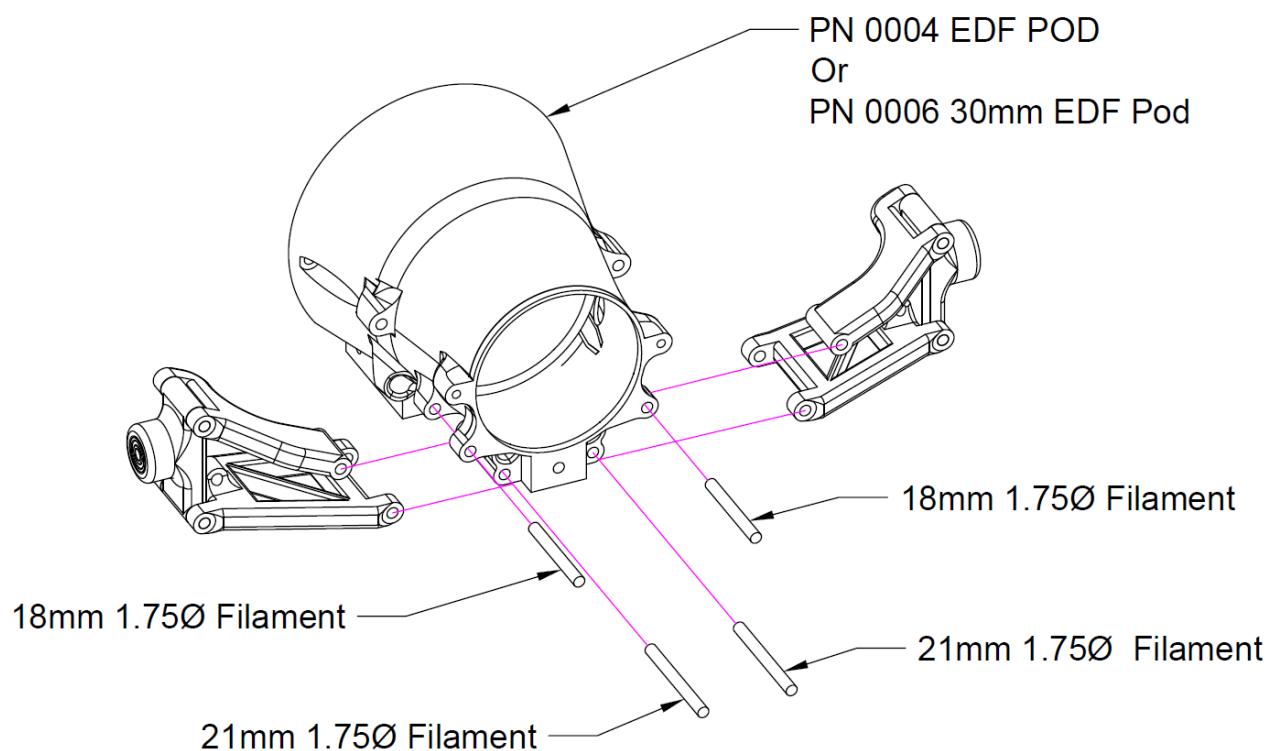
AS03 STEP 1



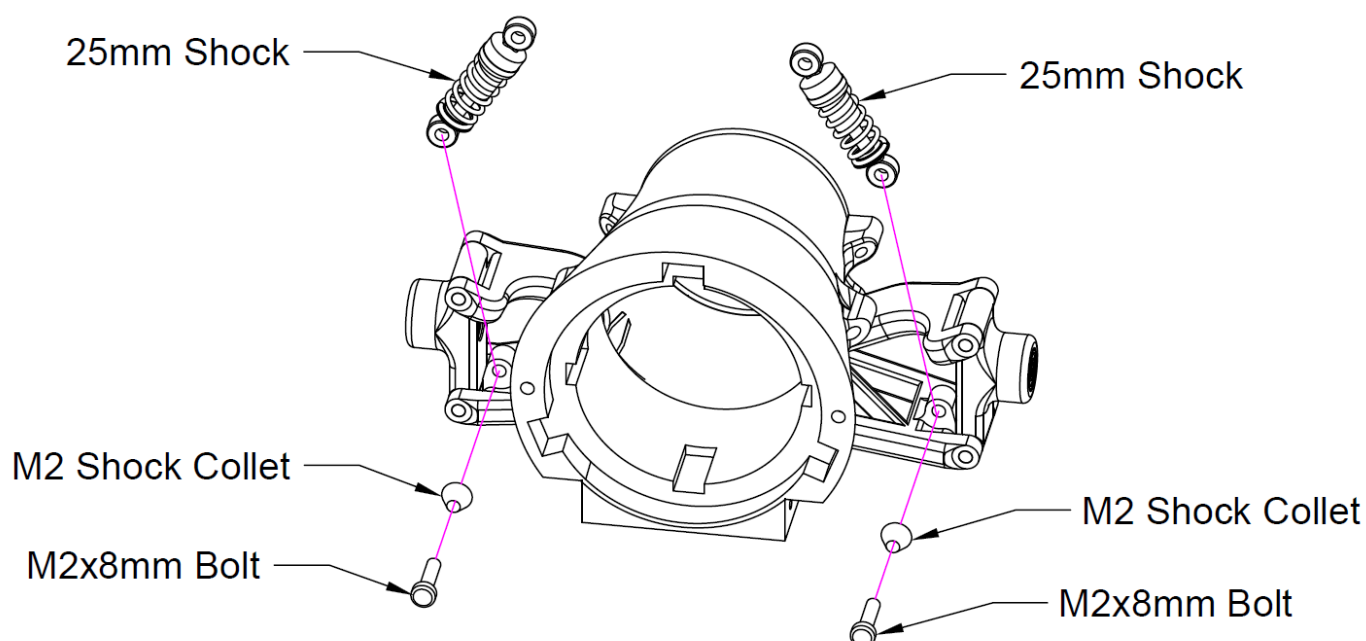
AS03 STEP 2



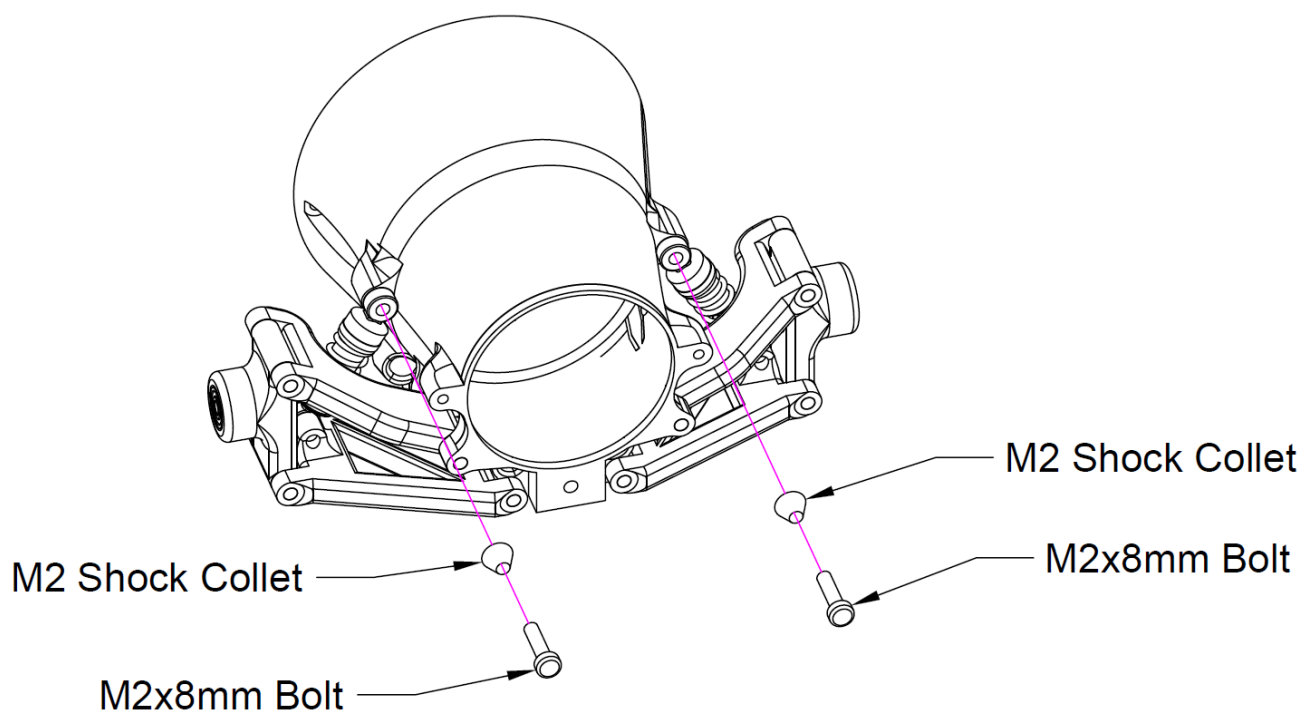
AS03 STEP 3



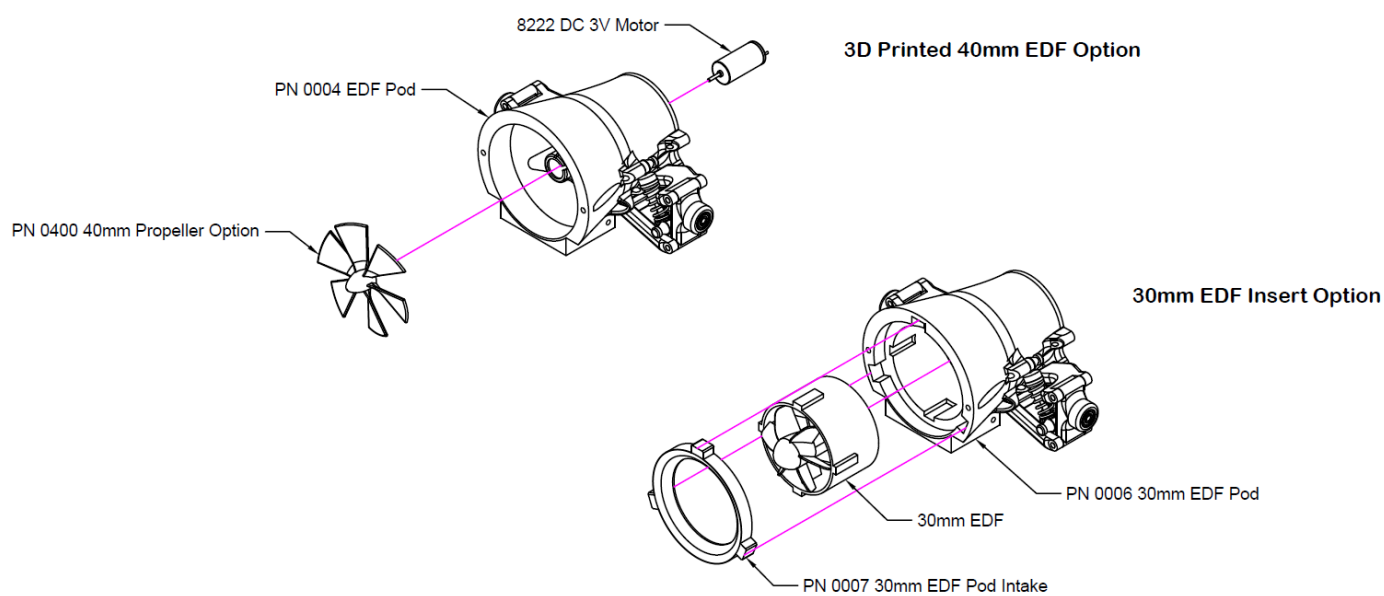
AS03 STEP 4



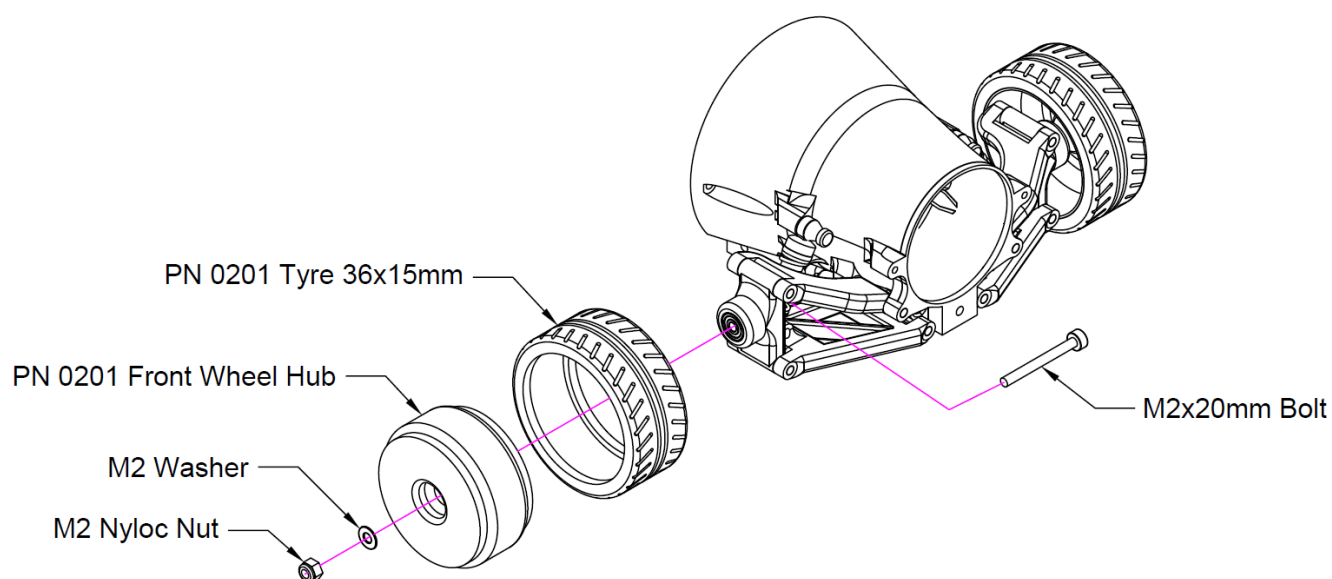
AS03 STEP 5



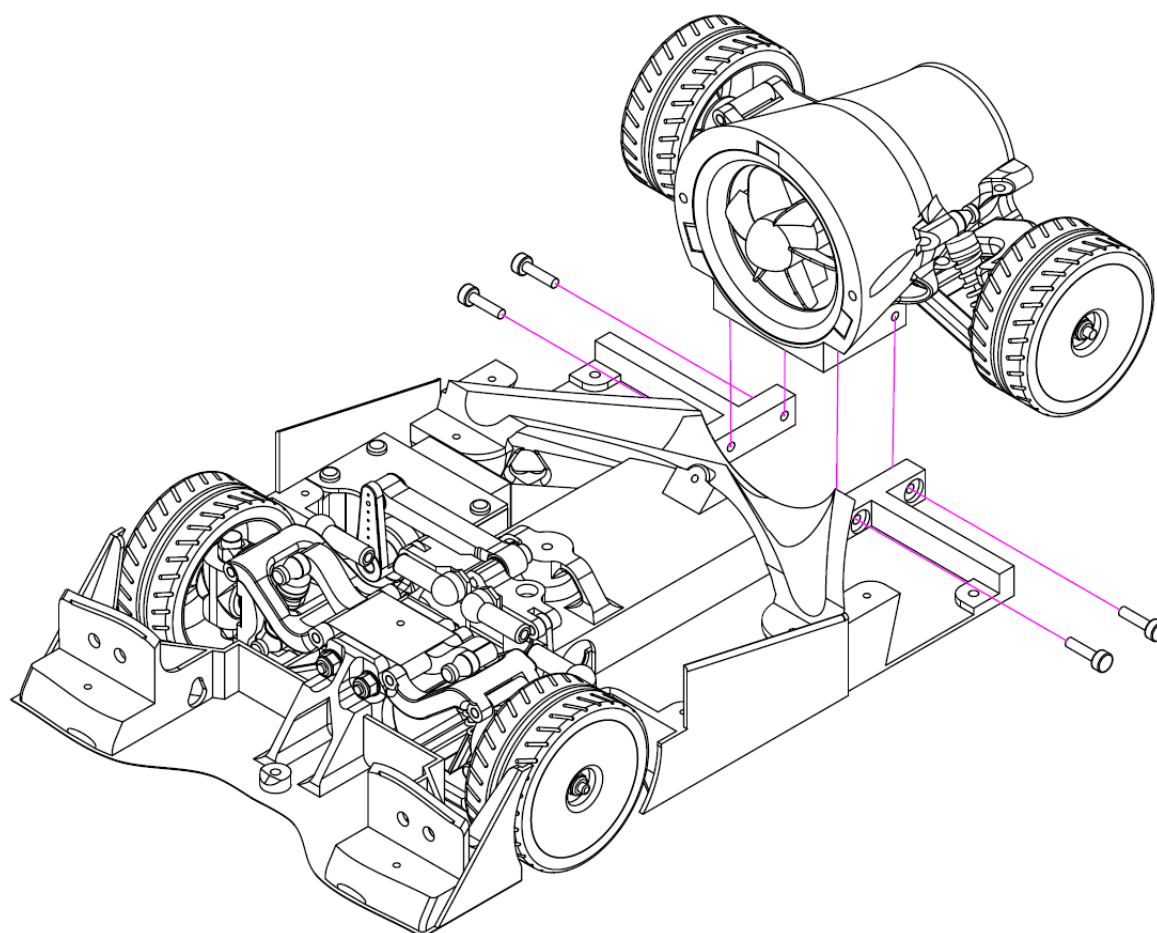
AS03 STEP 6



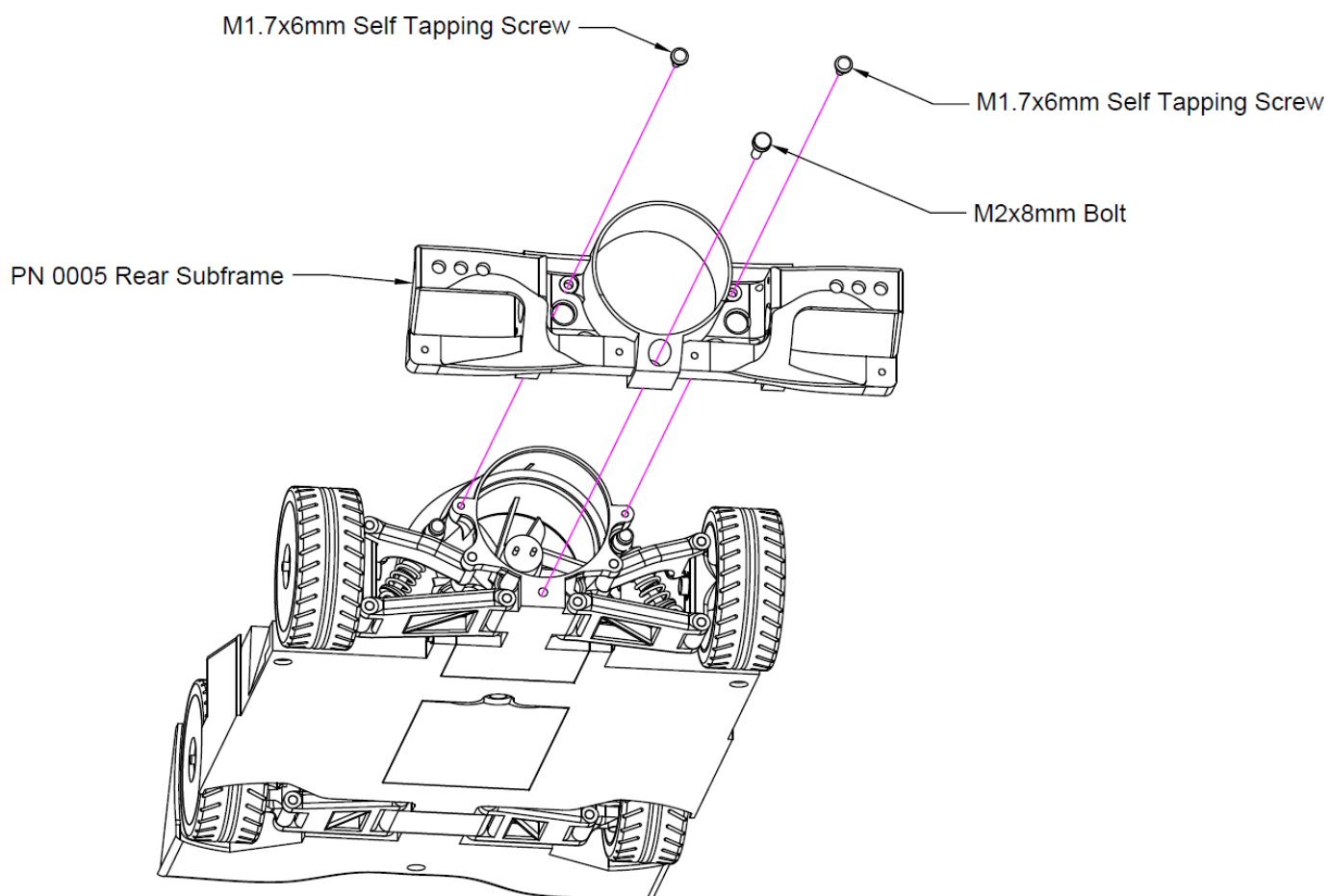
AS03 STEP 7



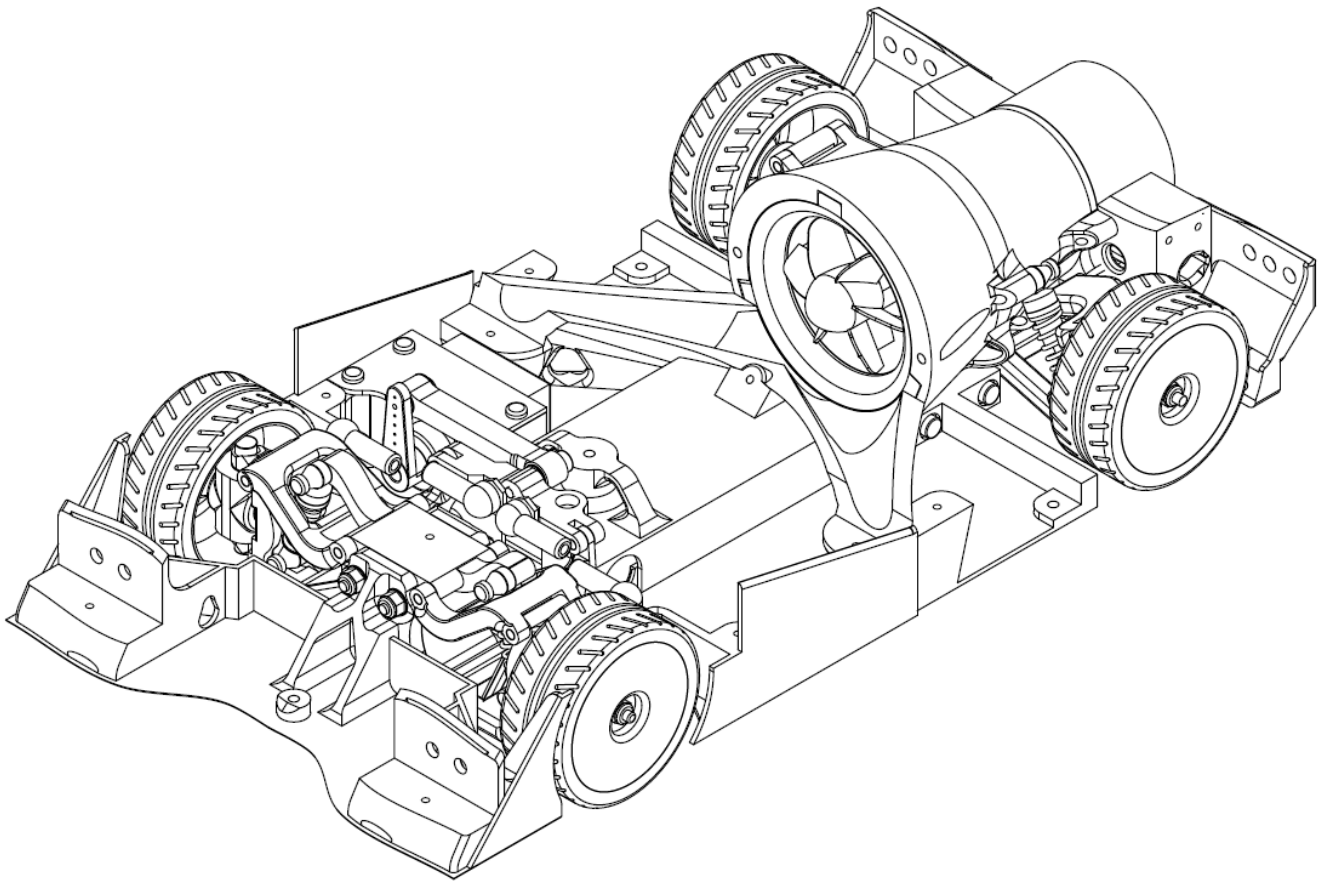
AS03 STEP 8



AS03 STEP 9

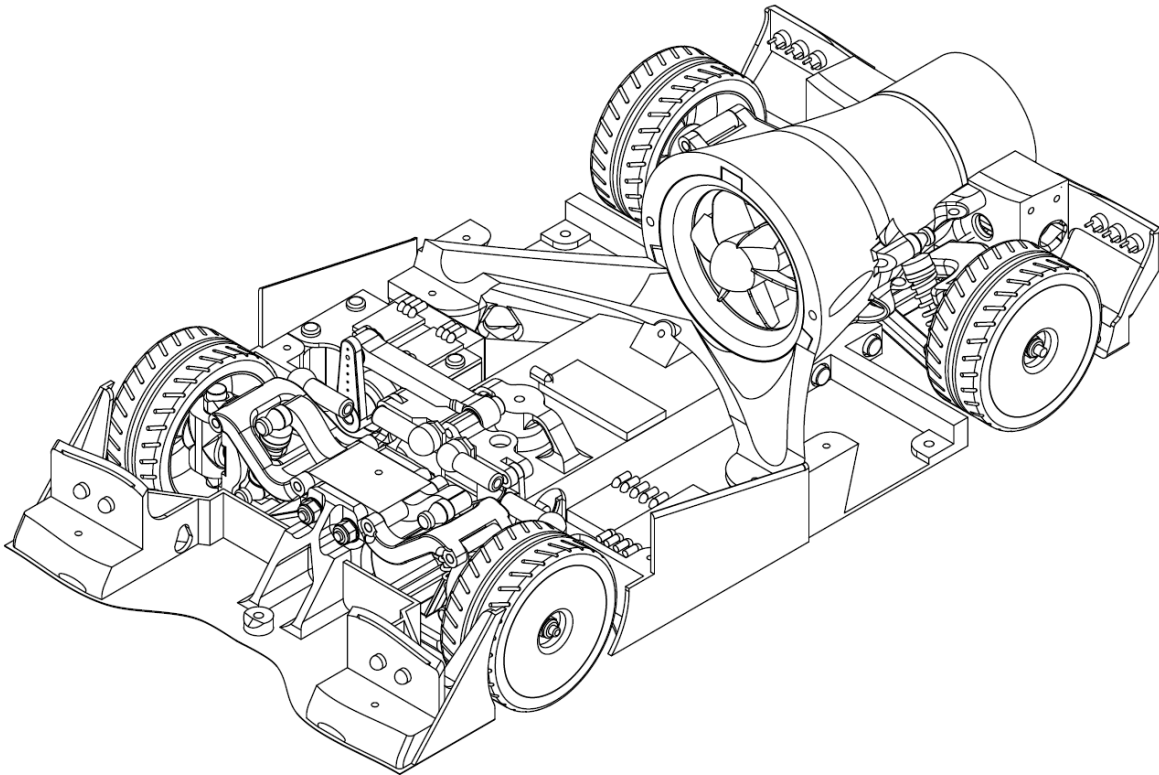


AS03 Complete



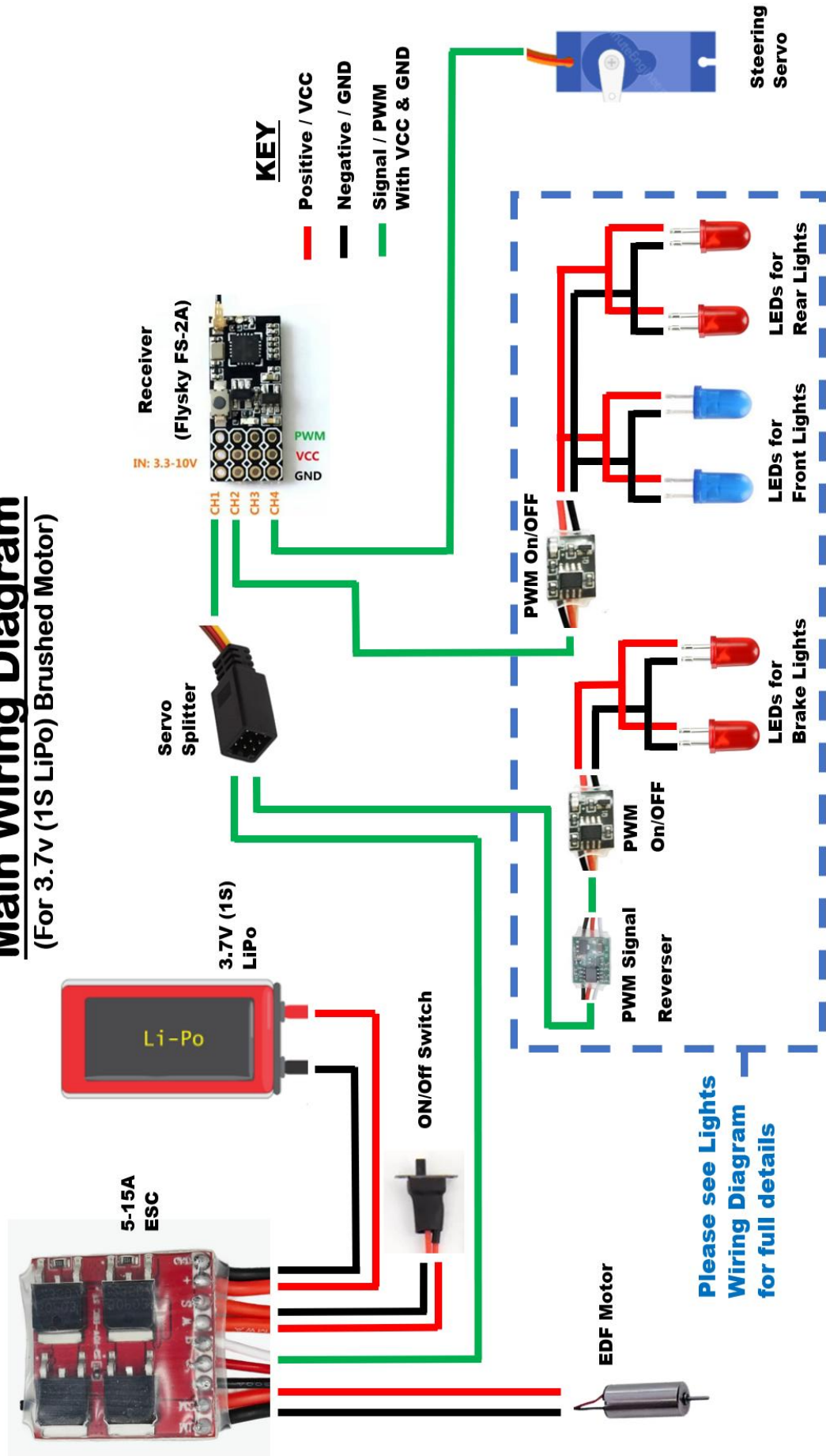
ASSEMBLY 4

(AS04) Electronics

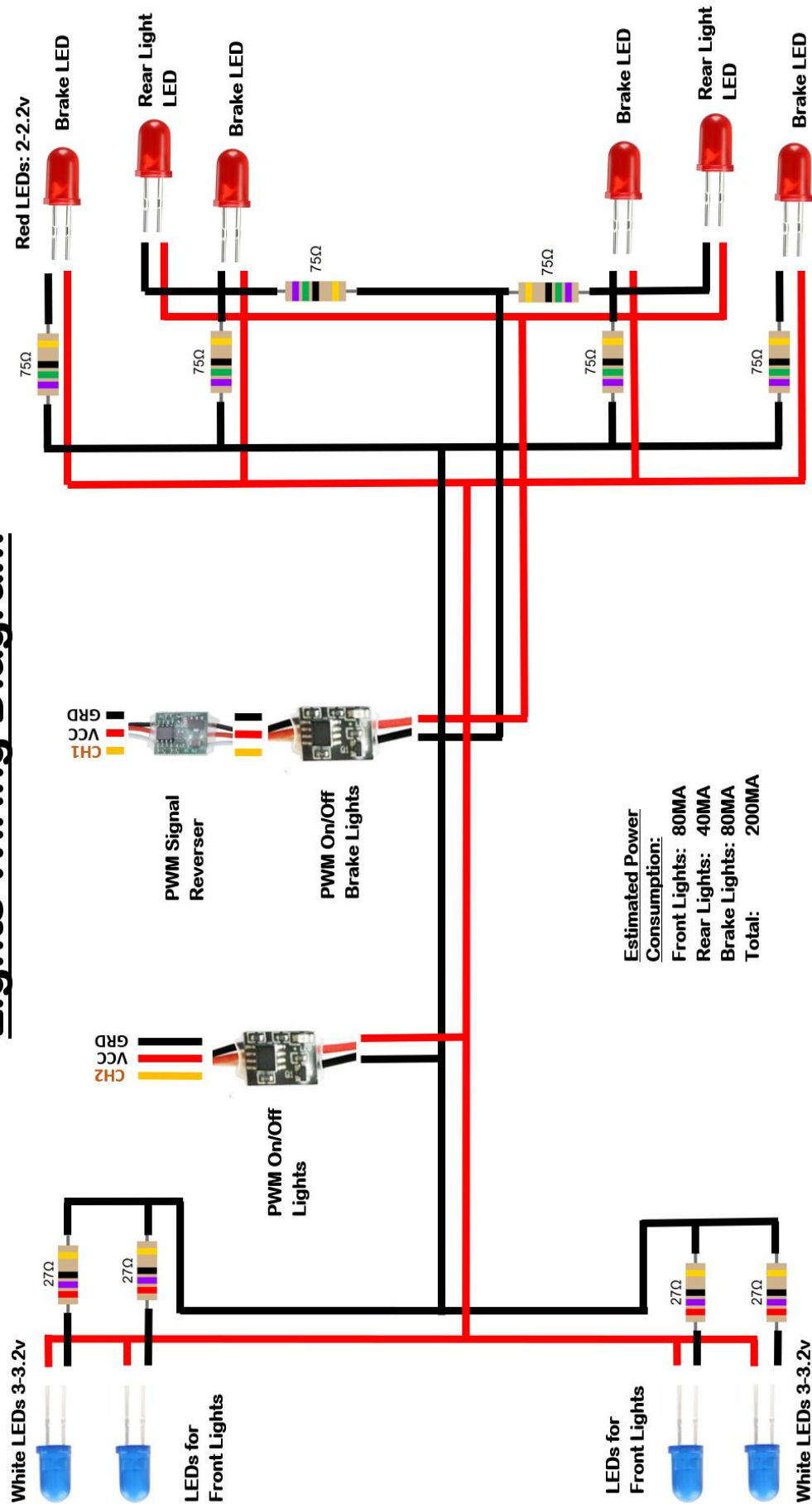


AS 04 Electronics				
3D Printed Parts			Components	
Part No.	Name	Quantity	Name	Quantity
			3mm LED (White/Clear)	4
			3mm LED (Red)	6
			Resistor - 27 Ohm	4
			Resistor - 75 Ohm	6
			22 AWG Wire @ 250-300mm (Approx)	10
			22 AWG Wire @ 50mm (Approx)	16
			2-20A PWM - On/Off Switch	2
			PWM Signal Reverser	1
			Receiver (RX)	1
			7-15A ESC	1
			Heat Shrink	
			M3 Double sided Tape	
Assemblies				
AS 01	Front Suspension Assembly	1		
AS 02	Main Chassis Assembly	1		
AS 03	Rear Suspension Assembly	1		

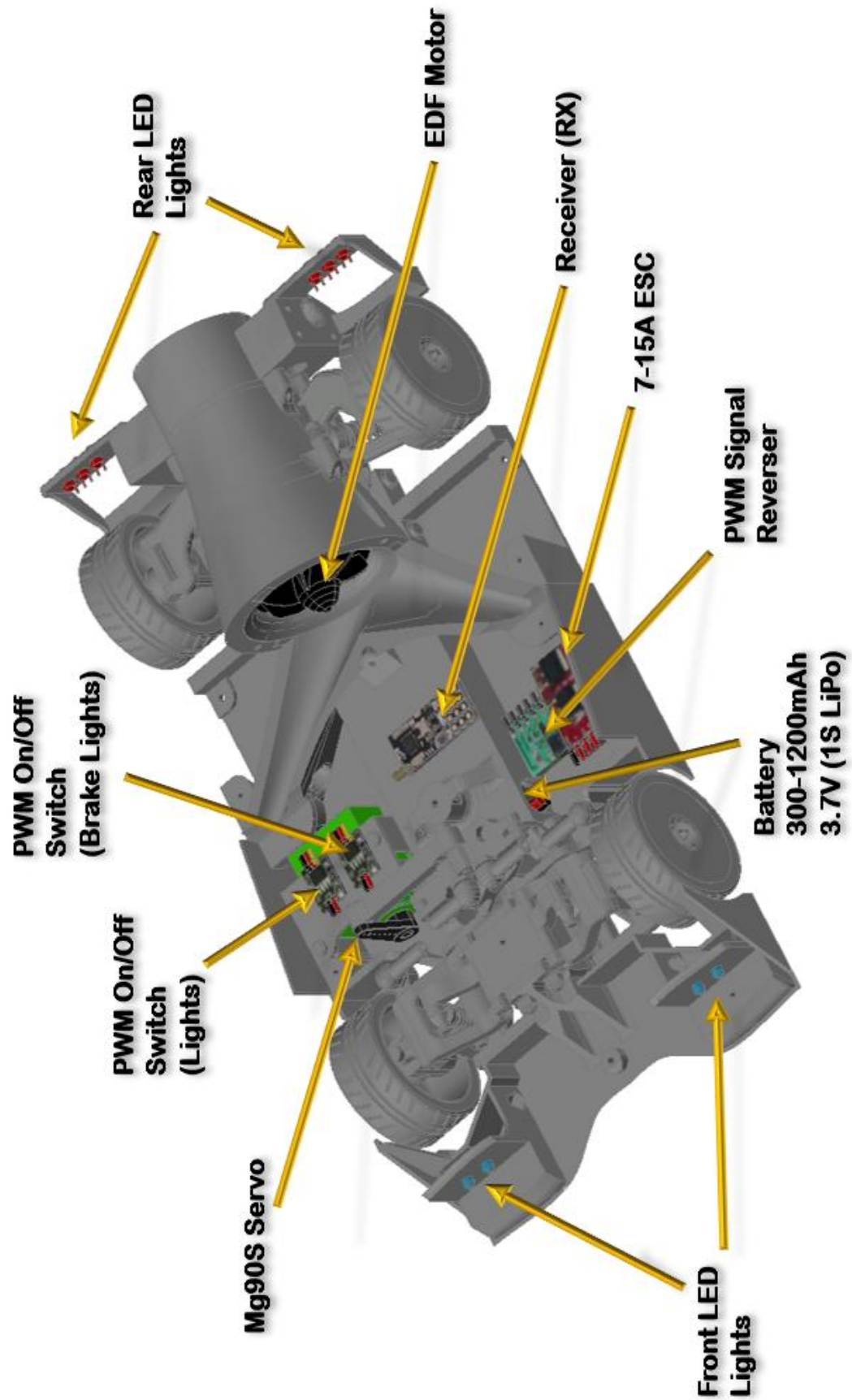
Main Wiring Diagram (For 3.7v (1S LiPo) Brushed Motor)



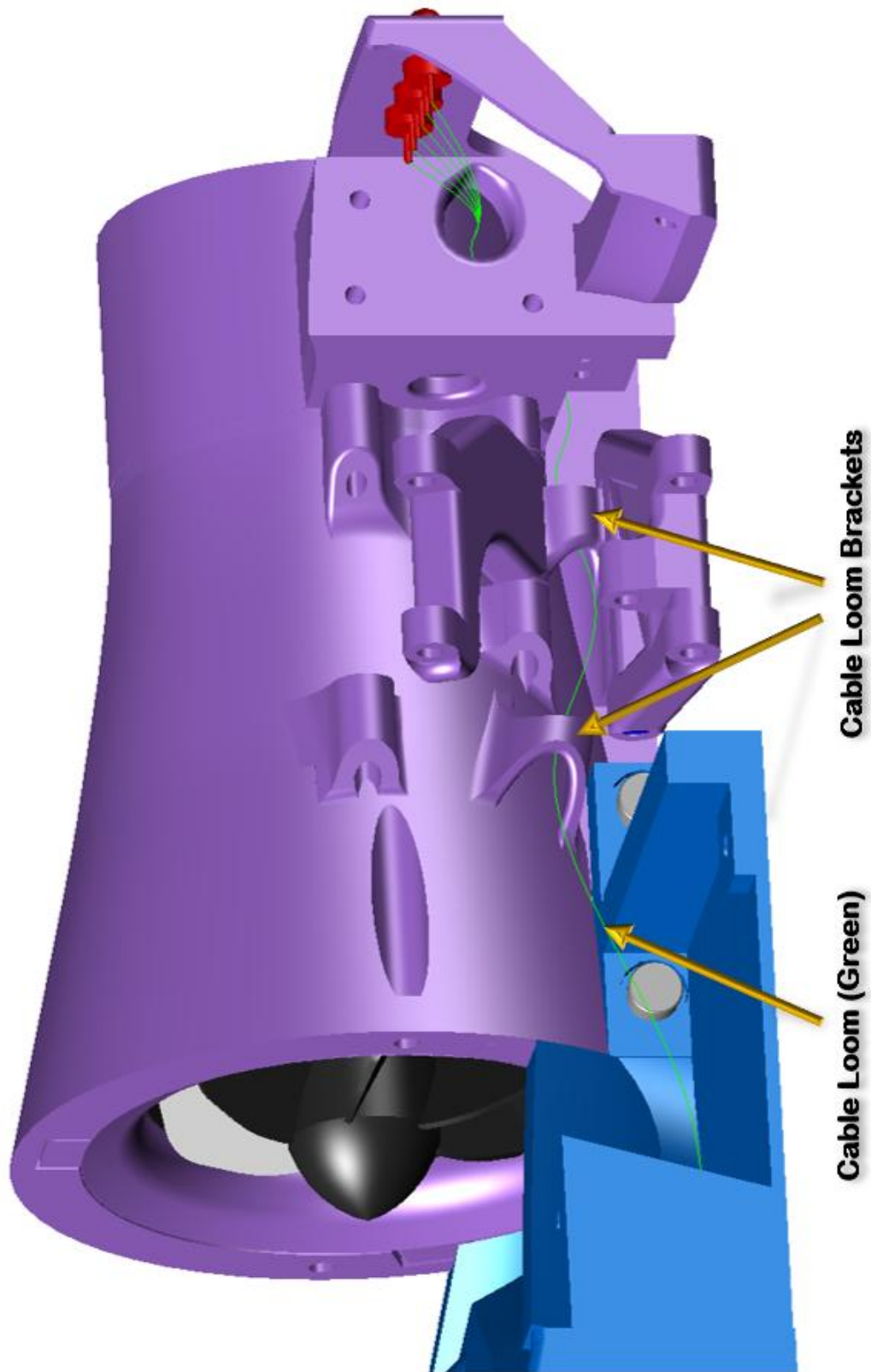
Lights Wiring Diagram



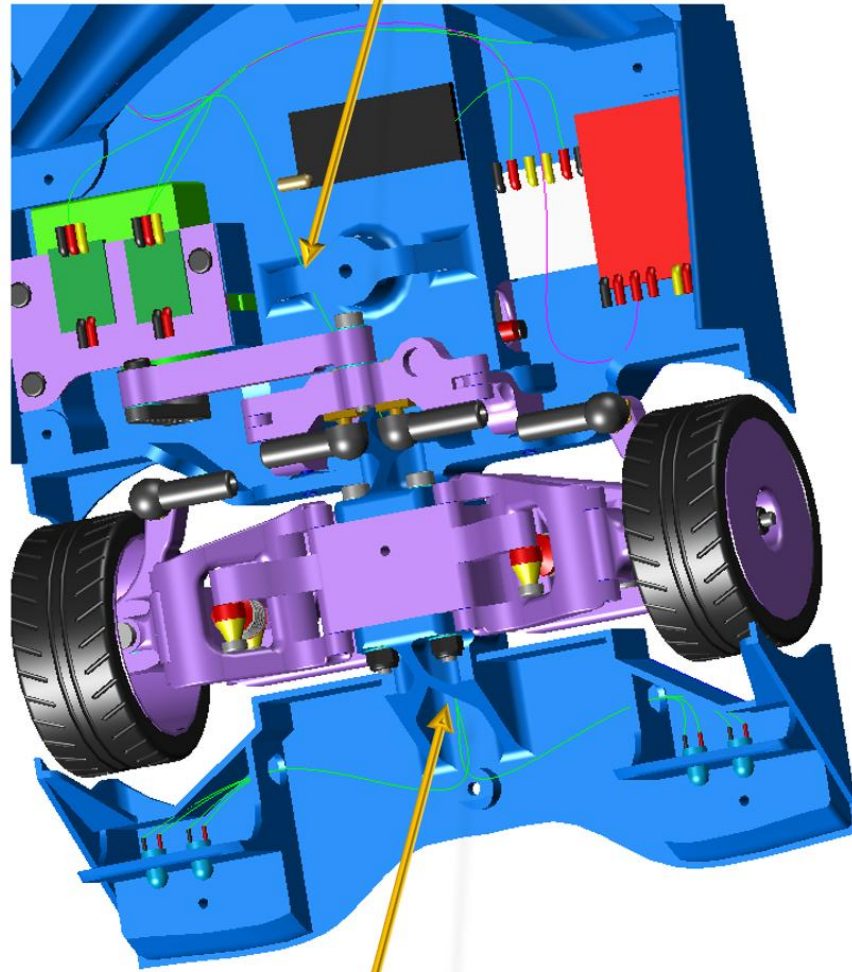
Electrical Component Locations



Rear Light Cable Loom Routing



Front Light Cable Loom Routing

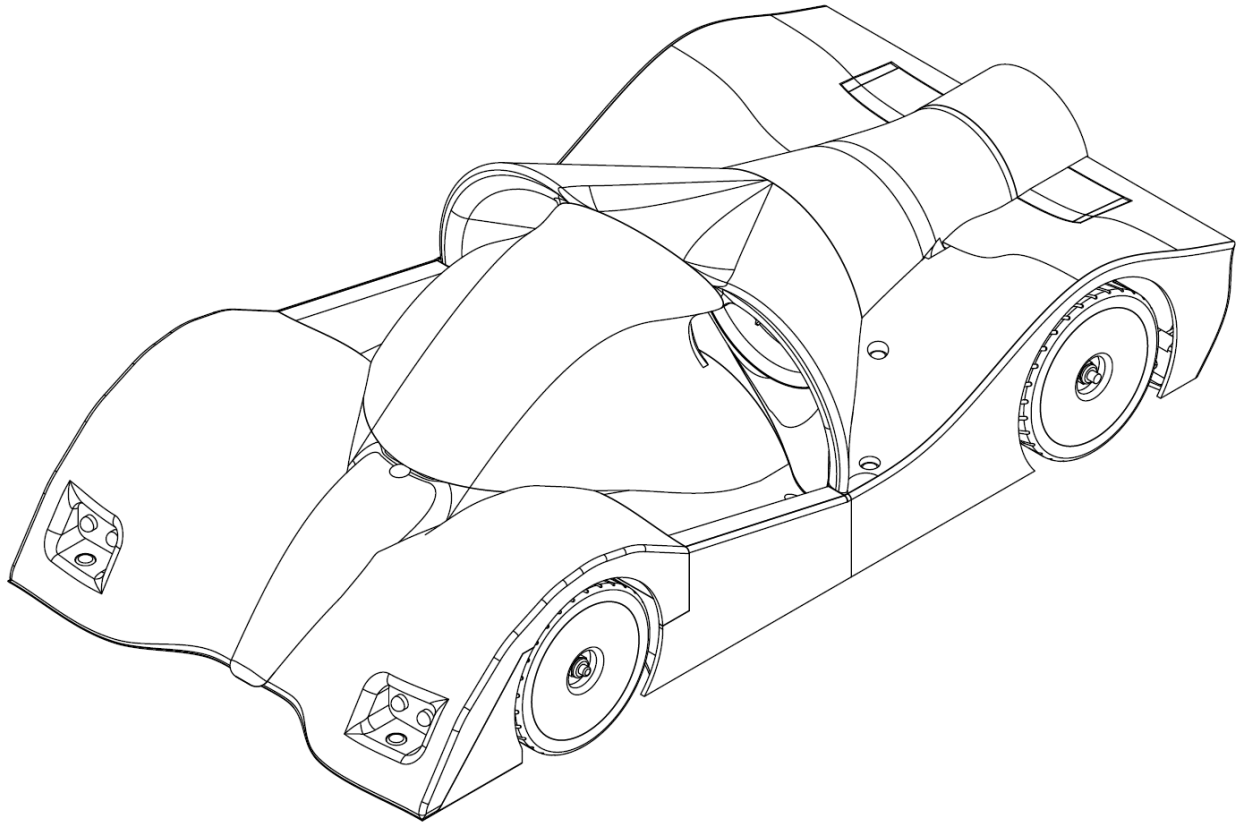


Cable Loom to go through the centre hole of the Front Suspension Bulk Head

Cable Loom (Green) to go under the Steering Bar and through loop above the battery compartment to prevent snagging on the steering assembly

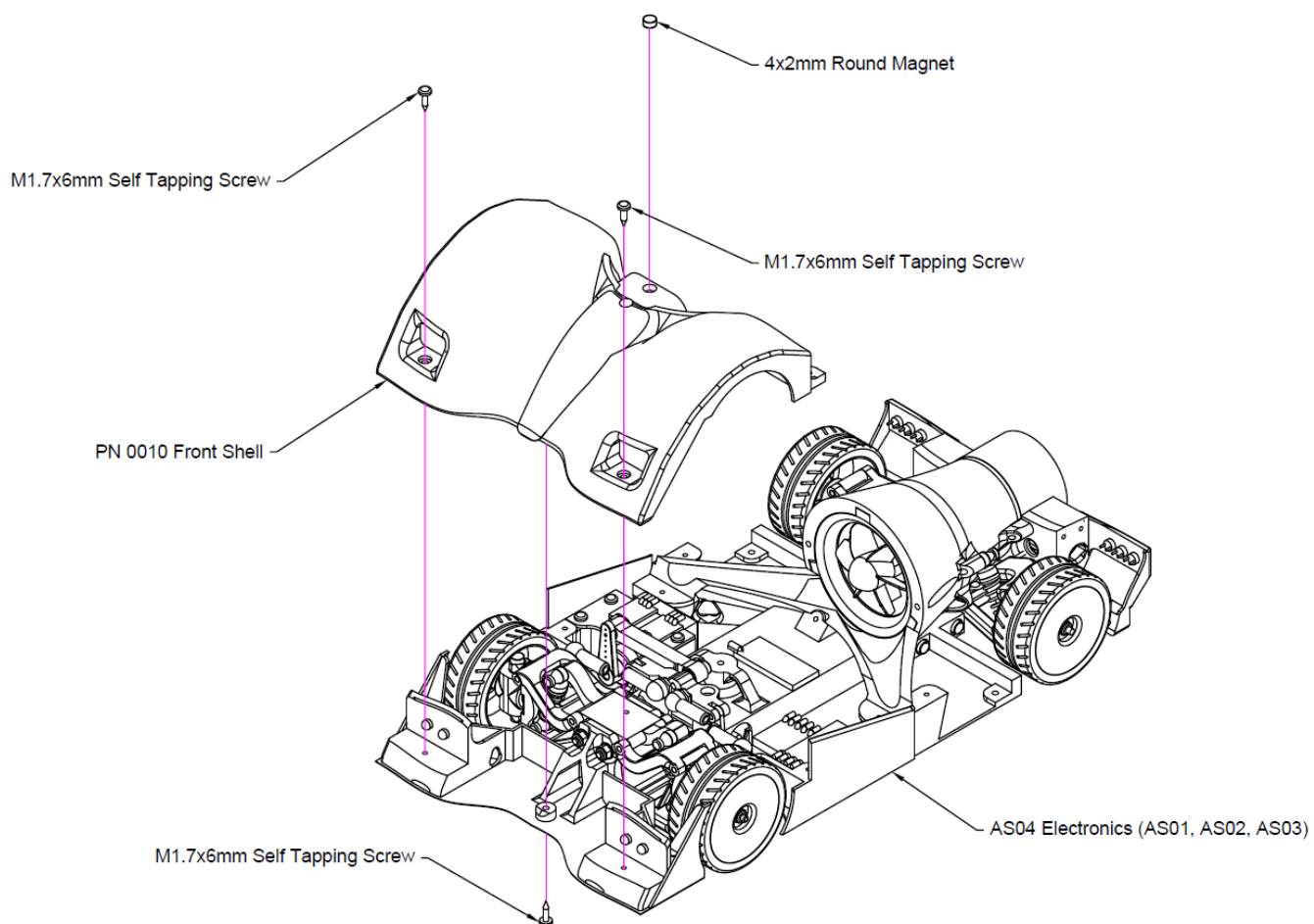
ASSEMBLY 5

(AS05) Body Work

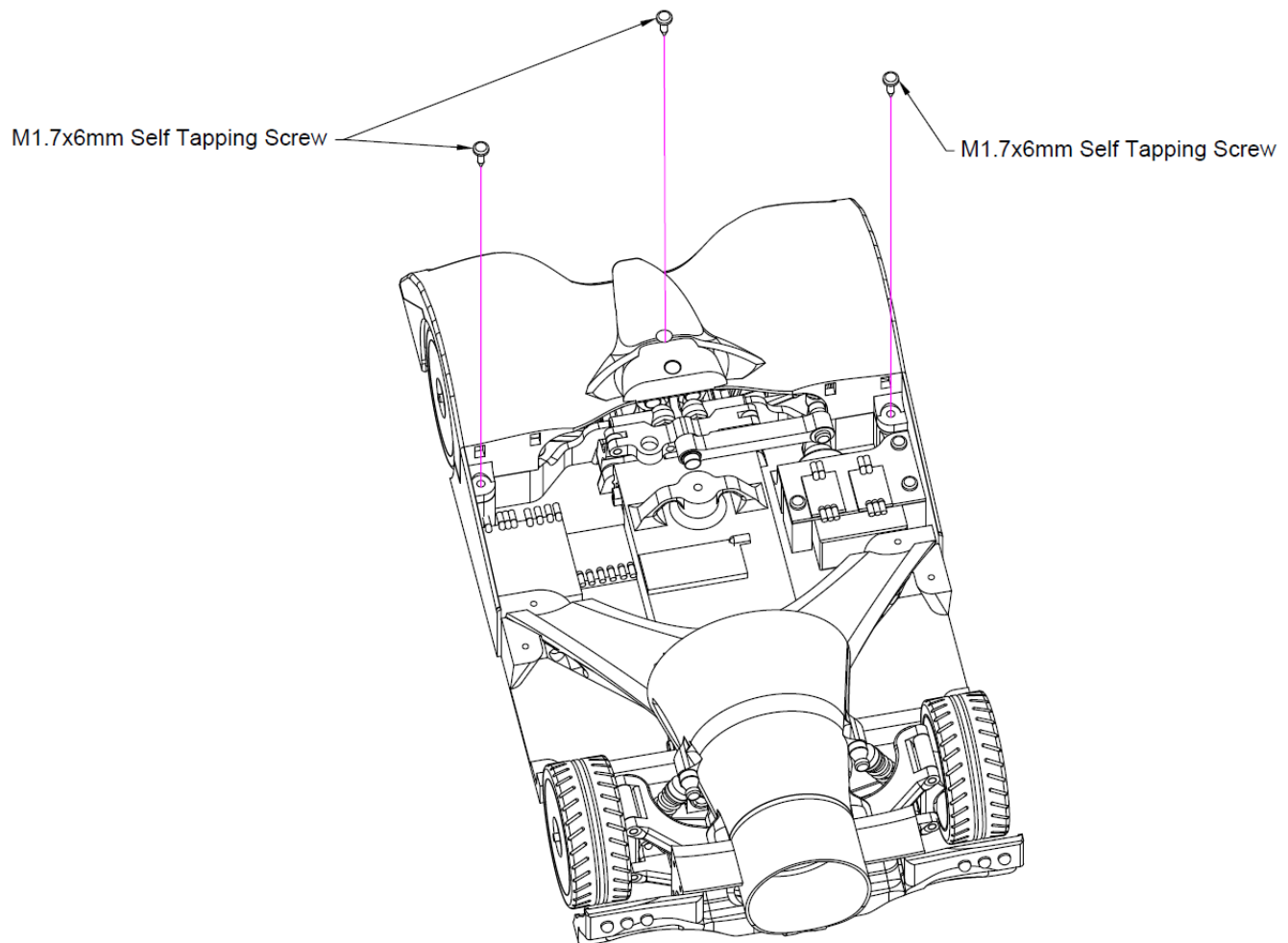


AS 05 Body Work					
3D Printed Parts			Components		
Part No.	Name	Quantity	Name		Quantity
PN 0010	Front Shell	1	M2*8mm Bolt		2
PN 0011	Intake Cowling	1	M1.7*6 Self Tapping Screw		25
PN 0012	Canopy - Non FPV	1	4x2mm Round Magnet		6
PN 0014	NS Intake Panel	1			
PN 0015	OS Intake Panel	1	Assemblies		
PN 0016	NS Rear Quarter Panel	1	AS 01	Front Suspension Assembly	1
PN 0017	OS Rear Quarter Panel	1	AS 02	Main Chassis Assembly	1
PN 0301	NS Rear Wing Blank	1	AS 03	Rear Suspension Assembly	1
PN 0302	OS Rear Wing Blank	1	AS 04	Electronics	1

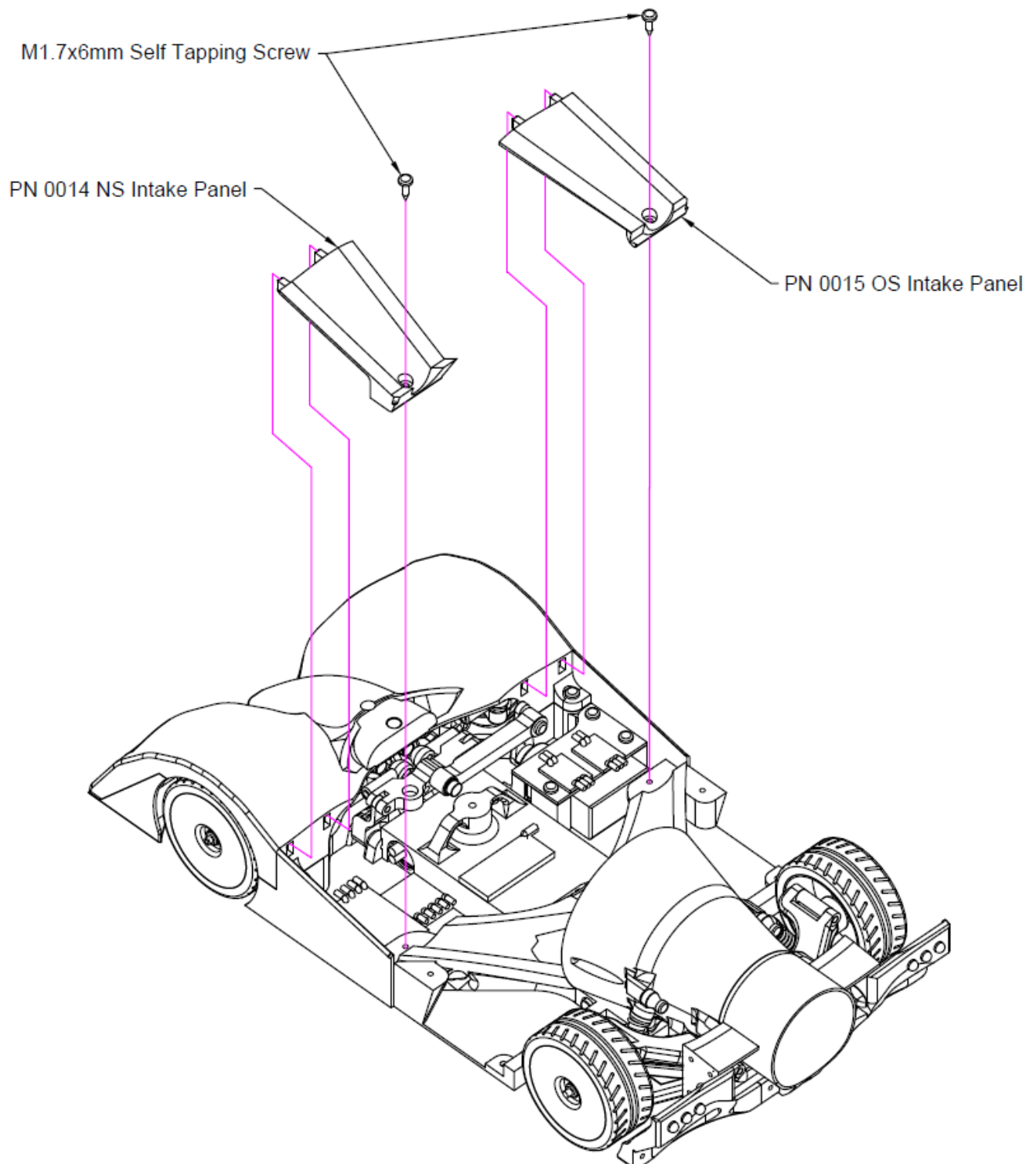
AS05 STEP 1A



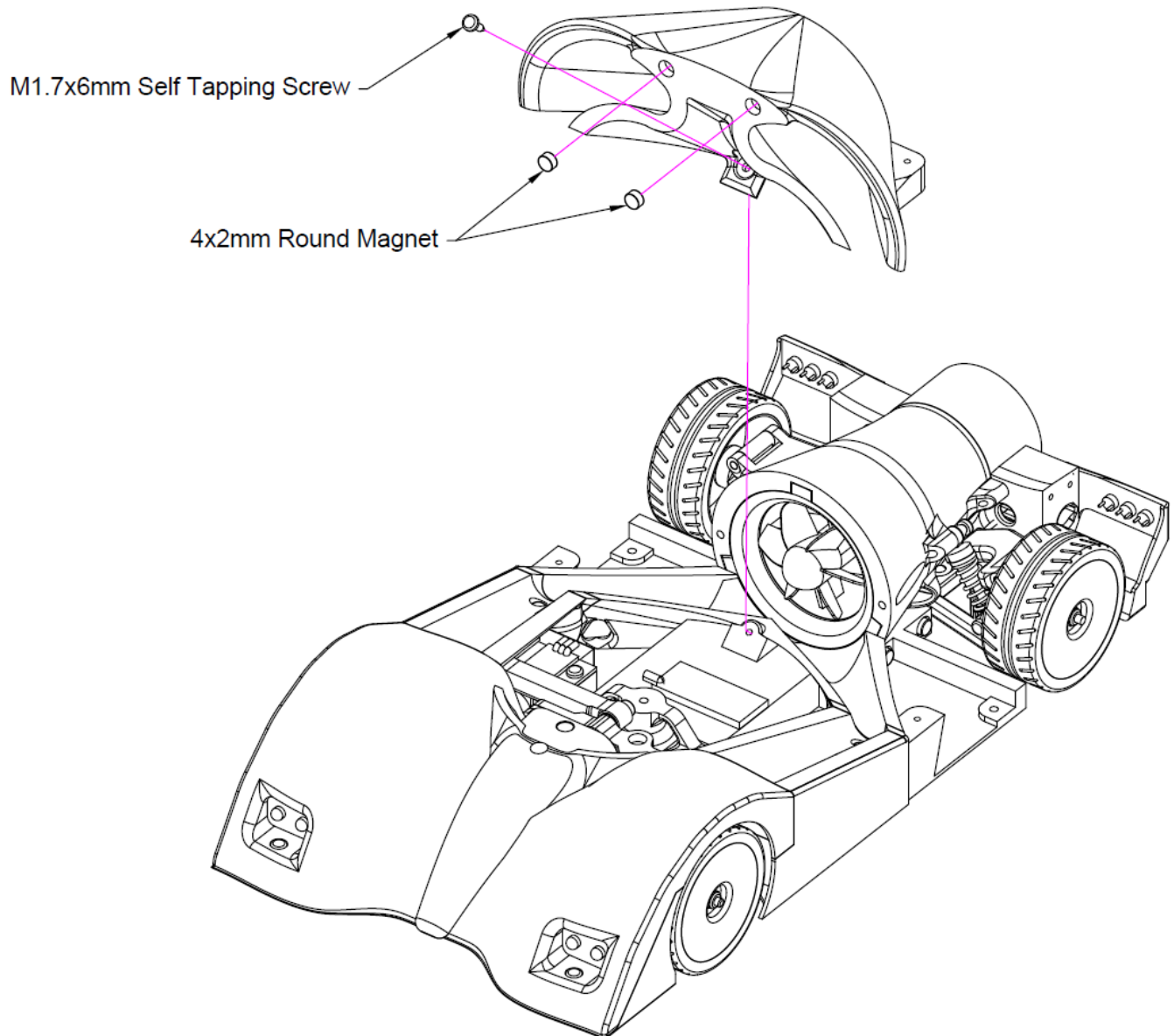
AS05 STEP 1B



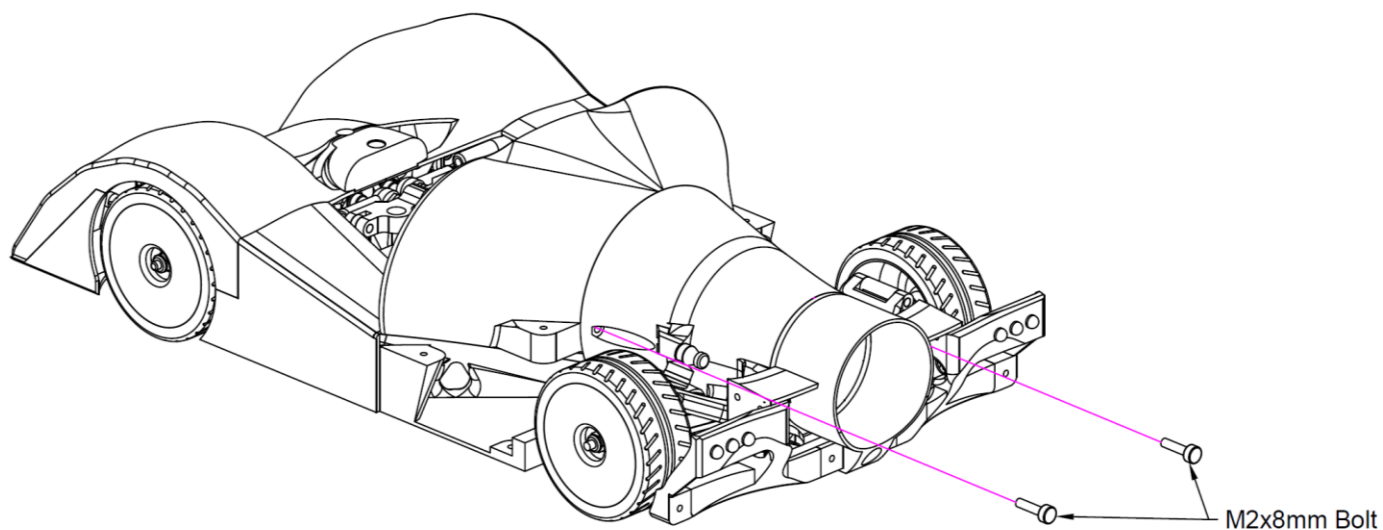
AS05 STEP 2



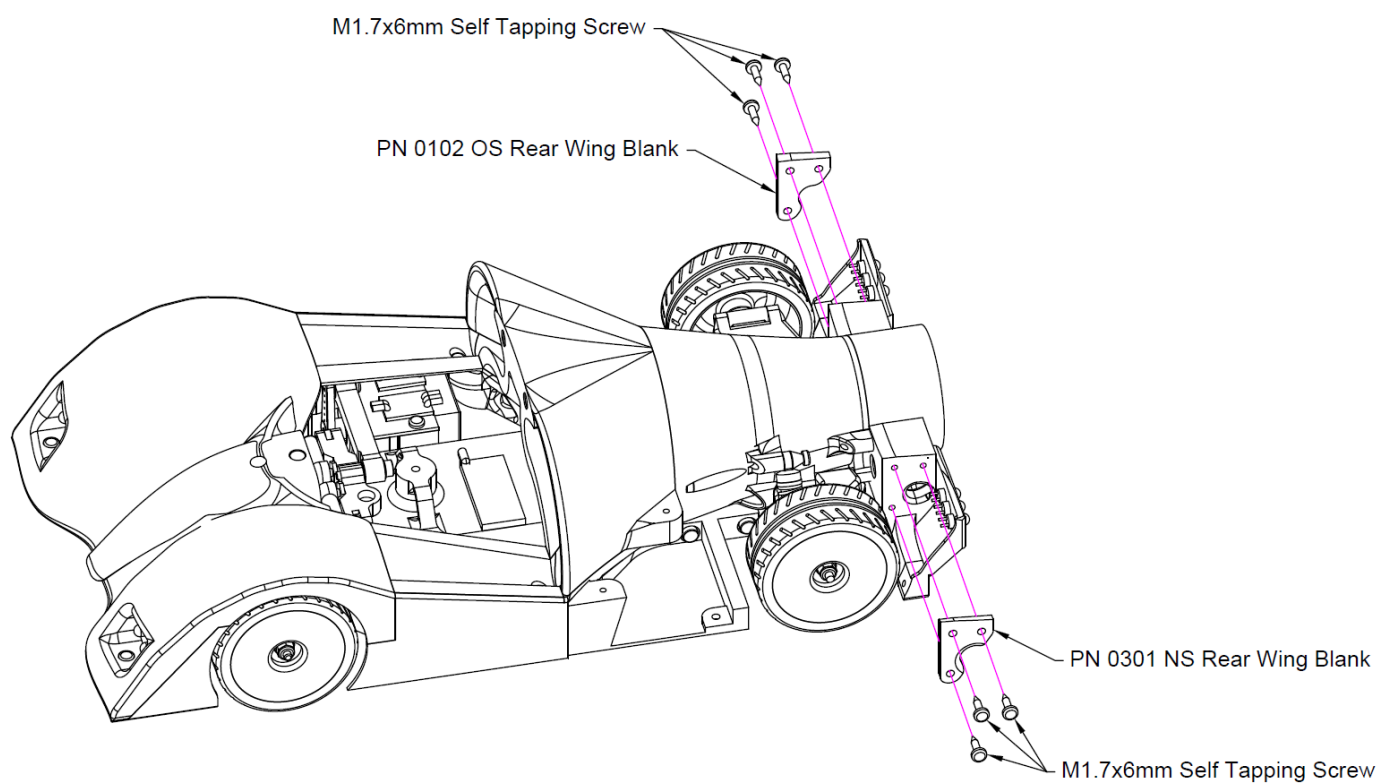
AS05 STEP 3A



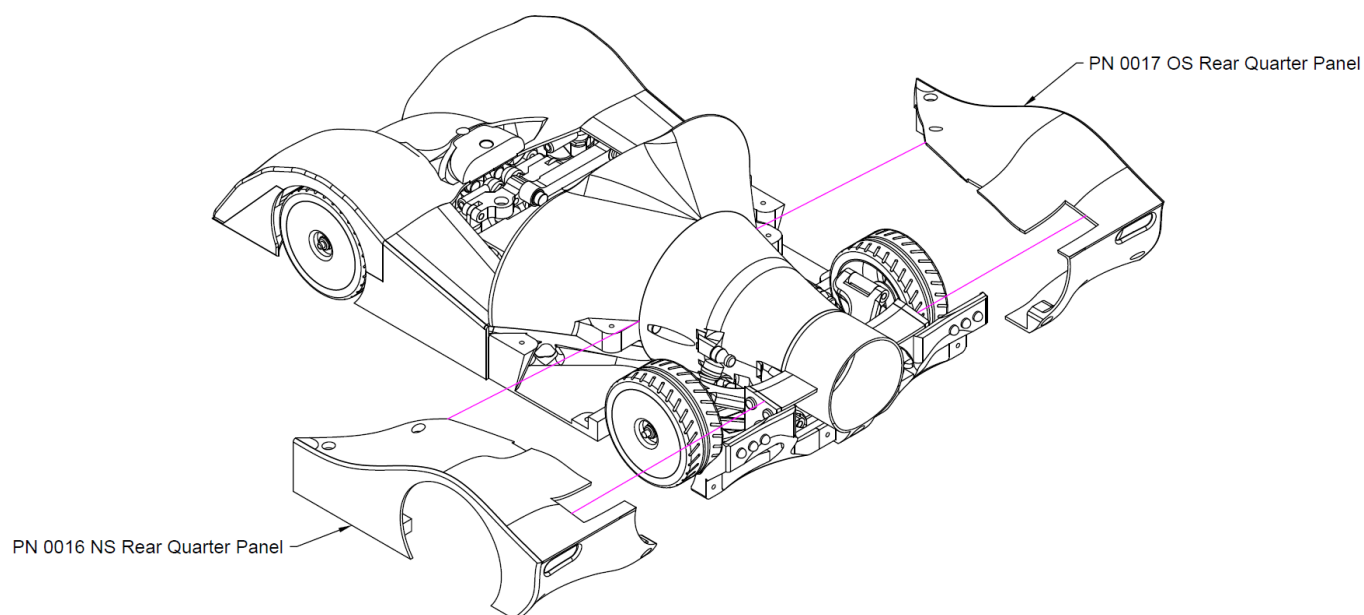
AS05 STEP 3B



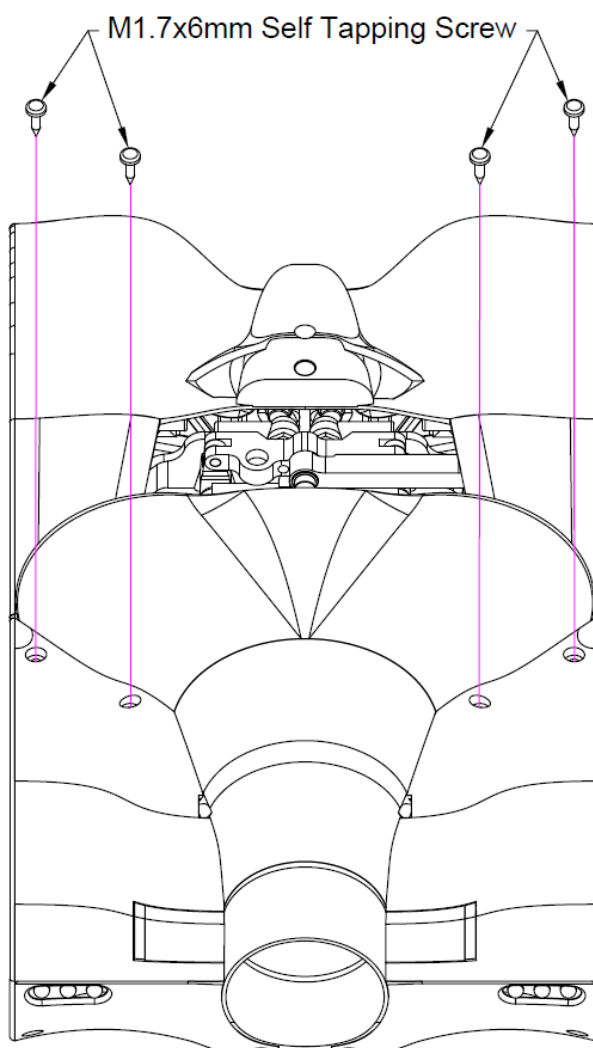
AS05 STEP 4



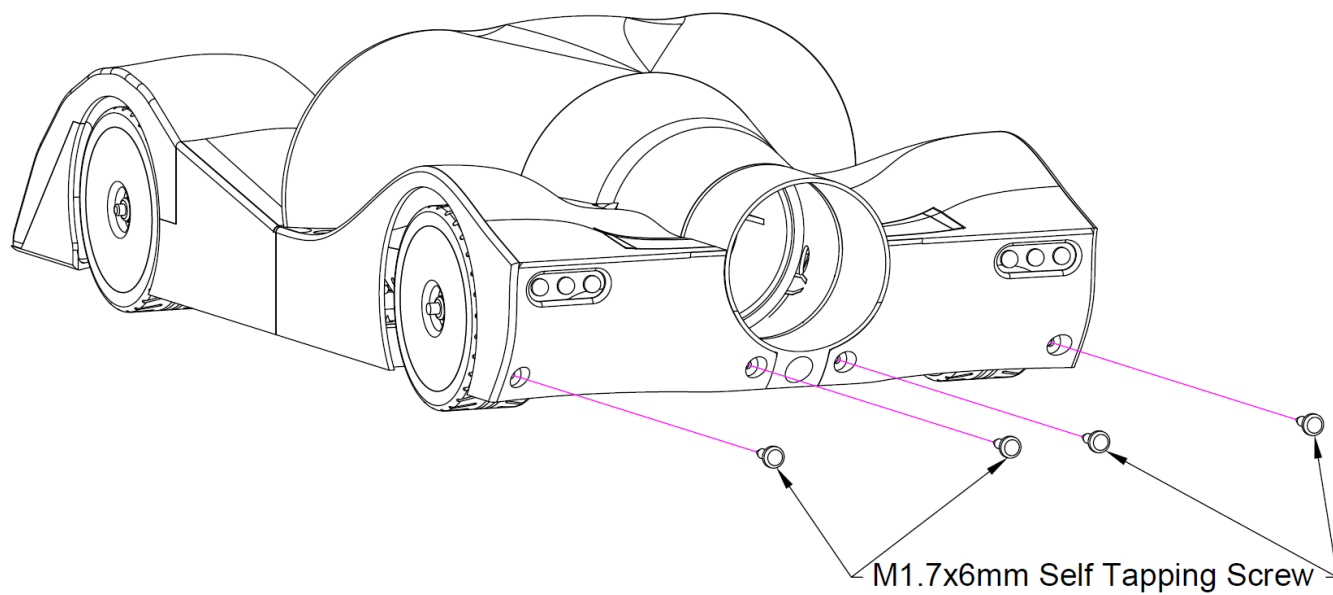
AS05 STEP 5A



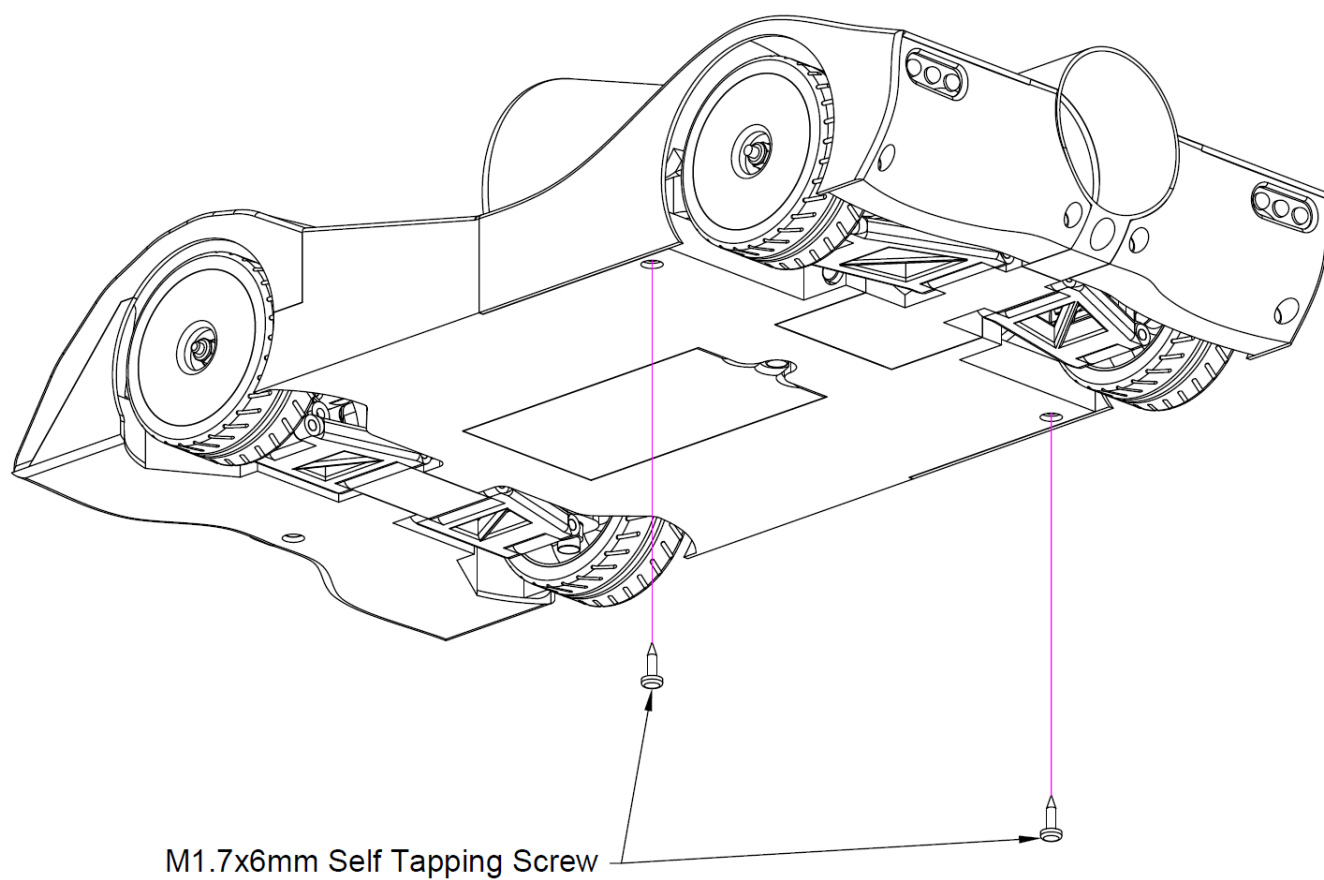
AS05 STEP 5B



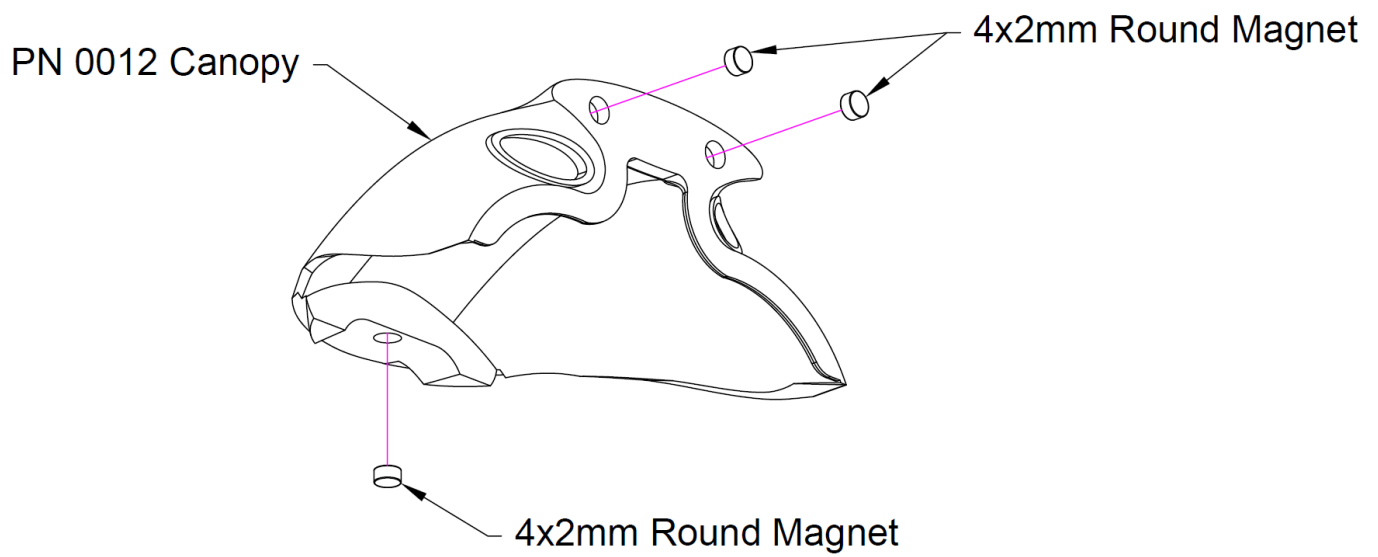
AS05 STEP 5C



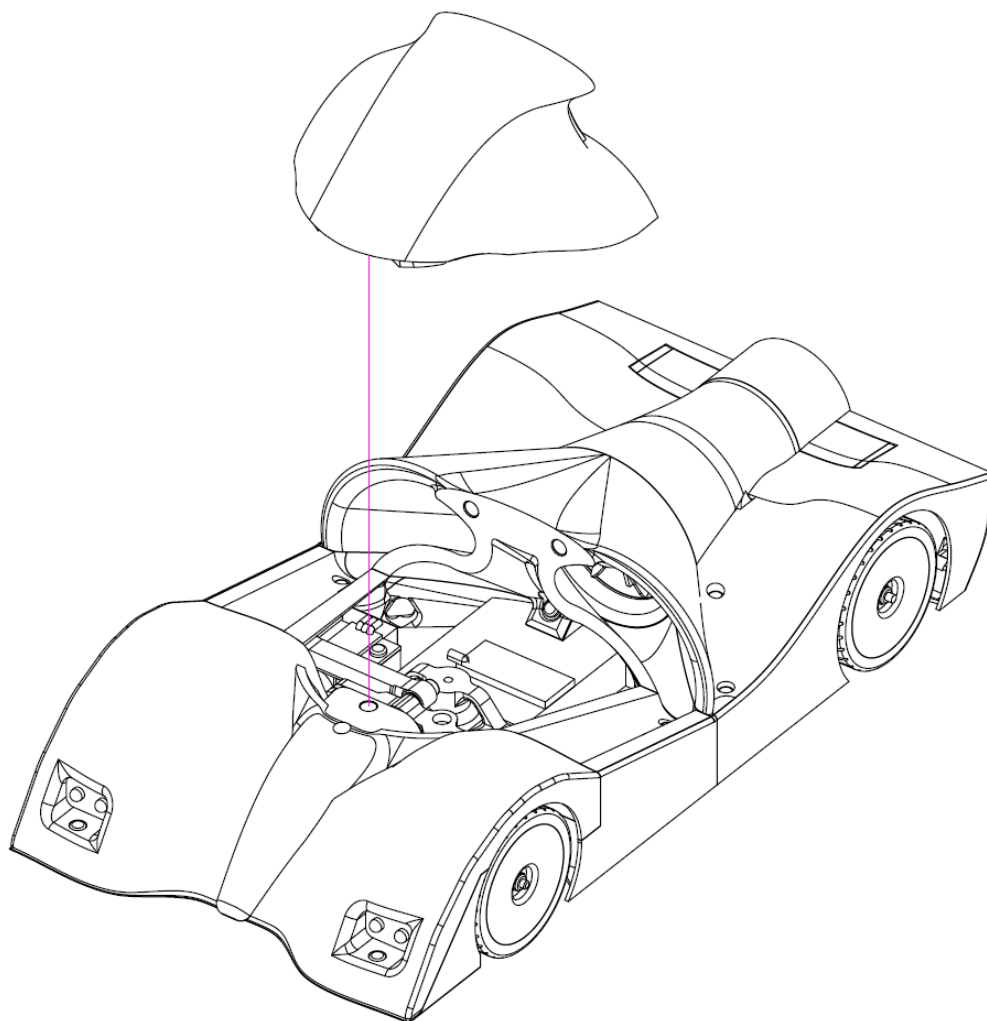
AS05 STEP 5D



AS05 STEP 6



AS05 STEP 7



AS05 Complete

