

AD-SERIES BUILD MANUAL



DROIDWORX LTD NEW ZEALAND

2 PARK DRIVE
3225 RAGLAN
NEW ZEALAND

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FLIGHT OPERATION AND SAFETY



OPERATION AND SAFETY

This is a quick guide for those new to Multi-Rotor craft offering some basic safety and operational procedures... and are recommended standard operating procedures for those piloting Droidworx or any multi-rotor craft.

Please read the instructions for the relevant Flight Control electronics before proceeding. Go to the web site of your flight control system and make yourself well acquainted with the correct procedure for the electronics installation and software operation.

Caution: never connect and start the engines for the first time with the propellers attached....and always balance your propellers; unbalanced propellers can cause excessive vibration which may lead to material fatigue.

Note: check the orientation of the flight controller you are using (which way is front) and also the engine assignment configuration; for instance which is engine 1,2,3 etc. and check also that your propellers, clockwise and counter clockwise, are also installed correctly before your first flight.

Before the first flight hand test your craft - arm and calibrate your electronics, hold the craft with both hands by the landing gear skids above your head with the front facing away from, and to the front of you, make sure you are well clear of obstructions and other people. You may need the assistance of another person for this test. Raise the throttle to around 25% and gently move the craft around the axis' roll (tipping the craft left and right) and feel for a steady and smooth resistance to your movements, do the same for pitch (tipping the craft forward and backward) and also yaw, rotating the craft clockwise and anti-clockwise whilst keeping it horizontal. If the craft offers smooth resistance to your movements it will fly correctly.

Your first test flight should be in an open field in low or zero wind. A sports field (not currently in use) is a good option; choose a site with short or mown grass. Do not takeoff from dry dusty sites. Make sure any onlookers or spectators do not gather about you...if so ask them to move away from you in a perimeter not less than 50m (150 feet) diameter around you.

Make sure that you have fully charged your transmitter and onboard battery packs. Make sure that the antenna of your Radio (TX) is up and correctly positioned; make sure the receiver (RX) for your craft is well positioned within the craft

and secured and that the antenna is facing downward and to the back of your craft and not touching any part of the craft.

Place the craft on level ground and turn on your transmitter – check that you have the correct model selected on your TX.

Set the transmitter timer to about 80% of the known flight duration.

Connect the battery to your crafts FC inputs and wait for the engine controller beeps to stop.

Stand about 4m away from your craft and behind the craft with the craft facing directly away from you.

Check the 50m flight safety perimeter you have established, also checking behind you for children running in to see what you are doing.

Survey the area; look for obstacles that you might not have seen previously, like power-lines and overhead wires.

Never fly your craft near a controlled aerodrome or in controlled airspace.

Check the weather conditions, the wind speed and direction. Do not fly in gusty strong wind at any time. Always try and fly the craft with the wind at your back so the craft will drift directly away from you.

Always keep your eyes on the craft when in flight – if people approach you inside your safety perimeter to talk to you or to ask questions whilst you are flying the craft do not engage in the conversation and ask them to stand well clear of you until you have landed.

Re-check your perimeter and raise the throttle slowly and check to see if the craft wants to tilt to one direction or another; sometimes you may need to adjust the trim on your TX to get a level flight, however most times the craft will fly perfectly

first time if you have installed the electronics and the software has been set correctly—check with the Flight Control manufacturer for standard or beginner settings for the craft.

Take offs are sometimes easier with a short burst of power to lift the craft off the ground.

Hold the craft in a controlled hover directly in front of you about 2-3m off the ground away from “ground effect” prop wash. When you have mastered this hover position you can then move on to rolling the craft gently from side to side and forward and backward. Make sure that you always stand behind the craft, this makes for easy orientation of the flight controls.

Repeat this exercise several times before you take the craft any higher.

Always fly the craft well away from people and / or property. Always check for children nearby.

PRE-FLIGHT SAFETY CHECK

Thoroughly check the craft before every flight...

Open the body and check to see if all the components are safe and secure and not loose.

Check to see if any wires have come off.

Check for loose bolts on the assembly.

Check that the batteries are secure.

Check the battery voltage, and if you have more than one battery, check your spares too.

Check the propellers for marks and nicks.

Check the propeller nuts or bolts, make sure they are tight.

Check the engine mounts and the bolts and nuts for tightness.

Check the Transmitter battery voltage; never fly the craft with a low voltage reading on your transmitter
(check with the manufacturer of your equipment for minimum and maximum voltage readings).

Check that the transmitter antenna is not damaged.

Check that the craft receiver module is well connected and that the antenna's are properly positioned.

Take a good look over the craft from all sides to make sure that nothing appears unusual or out of place.

Check your flight perimeter.

Check for power-lines and overhead obstacles.

Assess the weather conditions, wind direction and speed. An anemometer (hand held wind speed meter) is a good tool to have, otherwise use some dry grass or a tissue, throwing in the air to gauge the wind direction. Do not fly in gusty and turbulent conditions.

Set your transmitter timer to 80% of the known battery duration.

DISCLAIMER:

Droidworx NZ Limited disclaims all warranties, whether express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Droidworx NZ Limited does not assume any liability, whether direct or indirect, from the use of the AD-Series Craft. Droidworx NZ Limited shall not be liable for any direct, indirect, special, incidental, punitive, contingent or consequential damages to persons or property caused by the AD-Series craft. In no event shall Droidworx NZ Limited be liable for personal injury up to and including death.

Do's AND DONT's:

- Never fly in strong wind – the operational safe wind speed for these craft is about 10-15 KPH.
- In the event of a crash or a hard landing, always check the craft for damage before taking off again. In this instance, you must also check that you do not have dirt or grit in the engines; this can cause an engine or engines to overheat and fail in flight resulting in an out of control craft and serious damage or injury to the craft , other people and their property.
- Your launch field should preferably be open and flat with short grass. If it is necessary to take off in a field which only has long grass, manually flatten a 1.5m diameter take off perimeter with your feet.
- Always have a flight plan – visualize your flight path and check again for obstacles.
- Never fly the craft out of direct line of sight and always keep your eyes on the craft whilst it is in the air.
- Never fly the craft above 400 feet in height (the length of a football field).
- Never fly near people – a 50m (150 ft) perimeter around and above people is a recommended minimum and operational law in most countries.
- Always set your transmitter timer before each flight to about 80% of the known flight duration for the battery pack's you have installed in the craft.
- Never turn your transmitter off in flight.
- First person view flights are against the law in some countries – check the relevant aviation safety authority in your country before flying FPV. Always have a “spotter” with if you do fly FPV.
- Never let friends fly your craft unless they are well schooled in the discipline.
- Never fly under the influence of any substance or alcohol. Whilst there is a minimum blood alcohol level allowed for driving an automobile in most countries, the law for pilots in command of flying craft around the globe is universal...there is a zero limit tolerance.
- Always turn your transmitter on before connecting the battery to the craft...and always disconnect the battery from the craft before turning your transmitter off.

PRE-BUILD CHECKLISTS



REQUIRED TOOLS



5.5mm Hex Driver



2.5mm Hex Screw Driver



3mm Phillips Head Driver

ADX-3 S

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate 6/X3 HL	2
Boom 310mm HL	3
Boom bracket inner	8
Boom bracket outer	8
Boom marking sticker fluro red	1
Droidworx boom sticker	1
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	11
M3 alloy low profile nyloc nut	11
M3 stainless nyloc nut	4
M3x20mm nylon spacer	6

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	14
M3 nylon nut	14
M3x6mm nylon machine screws	14

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	4
Engine bracket 40mm - bottom	4
Engine mount disk 40mm SL	7
Heat shrink (5 cm)	6
M3x30mm socket head cap screw	6
M3 stainless nyloc nut	6
M3x6 stainless machine screws	24

Assorted spare items

M3x35mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

ADX-4 S

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate (X)4 HL	2
Boom 310mm HL	4
Boom bracket inner	10
Boom bracket outer	10
Boom marking sticker fluro red	2
Droidworx boom sticker	2
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	16
M3 alloy low profile nyloc nut	16
M3 stainless nyloc nut	4
M3x20mm nylon spacer	8

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	16
M3 nylon nut	16
M3x6mm nylon machine screws	16

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	5
Engine bracket 40mm - bottom	5
Engine mount disk 40mm SL	9
Heat shrink (5 cm)	8
M3x30mm socket head cap screw	8
M3 stainless nyloc nut	8
M3x6 stainless machine screws	32

Assorted spare items

M3x35mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

AD-4 S

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate (X)4 HL	2
Boom 310mm standard	4
Boom bracket inner	10
Boom bracket outer	10
Boom marking sticker fluro red	2
Droidworx boom sticker	2
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	16
M3 alloy low profile nyloc nut	16
M3 stainless nyloc nut	4
M3x20mm nylon spacer	8

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	8
M3 nylon nut	8
M3x6mm nylon machine screws	8

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	5
Engine bracket 40mm - bottom	5
Engine mount disk 40mm SL	5
Heat shrink (5 cm)	4
M3x30mm socket head cap screw	8
M3 stainless nyloc nut	8
M3x6 stainless machine screws	16

Assorted spare items

M3x30mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

AD - 6 S

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4
Center plate parts & boom mounting	
Center plate 6 standard	2
Boom 310mm standard	6
Boom bracket inner	14
Boom bracket outer	14
Boom marking sticker fluro red	1
Droidworx boom sticker	1
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	14
M3 alloy low profile nyloc nut	14
M3 stainless nyloc nut	4

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	14
M3 nylon nut	14
M3x6mm nylon machine screws	14

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	7
Engine bracket 40mm - bottom	7
Engine mount disk 40mm SL	7
Heat shrink (5 cm)	6
M3x30mm socket head cap screw	12
M3 stainless nyloc nut	12
M3x6 stainless machine screws	24

Assorted spare items

M3x30mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

AD - 8 S

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate 8 standard	2
Boom 355mm standard	8
Boom bracket inner	18
Boom bracket outer	18
Boom marking sticker fluro red	2
Droidworx boom sticker	2
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	20
M3 alloy low profile nyloc nut	20
M3 stainless nyloc nut	4

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	16
M3 nylon nut	16
M3x6mm nylon machine screws	16

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	9
Engine bracket 40mm - bottom	9
Engine mount disk 40mm SL	9
Heat shrink (5 cm)	8
M3x30mm socket head cap screw	16
M3 stainless nyloc nut	16
M3x6 stainless machine screws	32

Assorted spare items

M3x30mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

ADX-3 HL

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate 6/X3 HL	2
Boom 355mm HL	3
Boom bracket inner	8
Boom bracket outer	8
Boom marking sticker fluro red	1
Droidworx boom sticker	1
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	11
M3 alloy low profile nyloc nut	11
M3 stainless nyloc nut	4
M3x20mm nylon spacer	6

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	14
M3 nylon nut	14
M3x6mm nylon machine screws	14

Engine mount parts and fittings

Engine bracket 50mm - top (dimple)	4
Engine bracket 50mm - bottom	4
Engine mount disk 50mm alloy	7
Heat shrink (5 cm)	6
M3x30mm socket head cap screw	6
M3 stainless nyloc nut	6
M3x6 stainless machine screws	24

Assorted spare items

M3x35mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

ADX-4 HL

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate (X)4 HL	2
Boom 355mm HL	4
Boom bracket inner	10
Boom bracket outer	10
Boom marking sticker fluro red	2
Droidworx boom sticker	2
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	16
M3 alloy low profile nyloc nut	16
M3 stainless nyloc nut	4
M3x20mm nylon spacer	8

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	16
M3 nylon nut	16
M3x6mm nylon machine screws	16

Engine mount parts and fittings

Engine bracket 50mm - top (dimple)	5
Engine bracket 50mm - bottom	5
Engine mount disk 50mm alloy	9
Heat shrink (5 cm)	8
M3x30mm socket head cap screw	8
M3 stainless nyloc nut	8
M3x6 stainless machine screws	32

Assorted spare items

M3x35mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

AD-4 HL

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4
Center plate parts & boom mounting	
Center plate (X)4 HL	2
Boom 310mm HL	4
Boom bracket inner	10
Boom bracket outer	10
Boom marking sticker fluro red	2
Droidworx boom sticker	2
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	16
M3 alloy low profile nyloc nut	16
M3 stainless nyloc nut	4
M3x20mm nylon spacer	8

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	8
M3 nylon nut	8
M3x6mm nylon machine screws	8

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	5
Engine bracket 40mm - bottom	5
Engine mount disk 40mm HL	5
Heat shrink (5 cm)	4
M3x30mm socket head cap screw	8
M3 stainless nyloc nut	8
M3x6 stainless machine screws	16

Assorted spare items

M3x30mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

AD - 6 HL

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate 6/X3 HL	2
Boom 355mm HL	6
Boom bracket inner	14
Boom bracket outer	14
Boom marking sticker fluro red	1
Droidworx boom sticker	1
M3x35mmss socket head screw	4
M3x27mm socket head cap screw	14
M3 alloy low profile nyloc nut	14
M3 stainless nyloc nut	4

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	14
M3 nylon nut	14
M3x6mm nylon machine screws	14

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	7
Engine bracket 40mm - bottom	7
Engine mount disk 40mm HL	7
Heat shrink (5 cm)	6
M3x30mm socket head cap screw	12
M3 stainless nyloc nut	12
M3x6 stainless machine screws	24

Assorted spare items

M3x30mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

AD - 8 HL

Landing Gear and Gear Rail Parts

Gear rail bracket	2
Carbon fiber gear rail bracing	2
Vibration isolator	2
Battery plate carbon fiber	2
Battery strap	1
7mm carbon fiber gear rail tube	6
Droidworx landing gear sticker	1
Landing gear plate standard/ext	2
Landing gear skids standard/ext	2
Vinyl end cap	4
Fluro sticker red	2
Fluro sticker silver	2
M3x12mm socket head cap screw	14
M3 alloy low profile nyloc nut	2
M3x2mm nylon spacer	4
M3 nylon washer	16
Rubber grommet	12

Dome Parts

Dome	1
Alloy dome fixing pins standard	4
Alloy dome fixing pins extended	4
R-clips	4
Dome grommets	8
Loop Wire (10 cm)	4
Crimps	8
V3 dome sticker	1

POV Mount

POV mount side plate	2
POV mount bottom plate	1
POV mount velcro strap	1
Rubber grommet	4

Center plate parts & boom mounting

Center plate 8 HL	2
Boom 410mm HL	8
Boom bracket inner	18
Boom bracket outer	18
Boom marking sticker fluro red	2
Droidworx boom sticker	2
M3x35mm ss socket head screw	4
M3x27mm socket head cap screw	20
M3 alloy low profile nyloc nut	20
M3 stainless nyloc nut	4

Electronics fittings

Universal adapter plate	1
Standoffs 12mm	16
M3 nylon nut	16
M3x6mm nylon machine screws	16

Engine mount parts and fittings

Engine bracket 40mm - top (dimple)	9
Engine bracket 40mm - bottom	9
Engine mount disk 40mm alloy	9
Heat shrink (5 cm)	8
M3x30mm socket head cap screw	16
M3 stainless nyloc nut	16
M3x6 stainless machine screws	32

Assorted spare items

M3x30mm socket head cap screw	1
M3x27mm socket head cap screw	1
M3x12mm socket head cap screw	1
M3x6 stainless machine screws	2
M3 alloy low profile nyloc nut	1
M3 stainless nyloc nut	1
R-clip	1
Dome grommet	1
Rubber grommet	1
M3 nylon washer	4
M3x2mm nylon spacer	2
Vinyl end cap	1
Fluro sticker LG red	1
Fluro sticker LG silver	1

ASSEMBLY INSTRUCTIONS



PART 1: LANDING GEAR ASSEMBLY



Standard Landing Gear



Extended Landing Gear

STANDARD LANDING GEAR ASSEMBLY

	Gear rail bracket	2			Fluro sticker red	2	
	Battery plate carbon fibre	2			Fluro sticker silver	2	
	Battery strap	1			M3x12mm socket head cap screw	14	
	7m carbon fibre gear rail tube	6			M3 alloy low profile nyloc nut	2	
	Droidworx landing gear sticker	1			M3x2mm nylon spacer	4	
	Landing gear skids standard	2			M3 nylon washer	16	
	Vinyl end cap	4			Rubber grommet	12	
	Landing gear plate standard	2					

1

Fit the four rubber grommets to the poly-composite gear rail brackets as shown



x2



x4

2

Fit the four rubber grommets to the carbon-fibre battery plates then feed the battery strap through the slots and loop.



x2



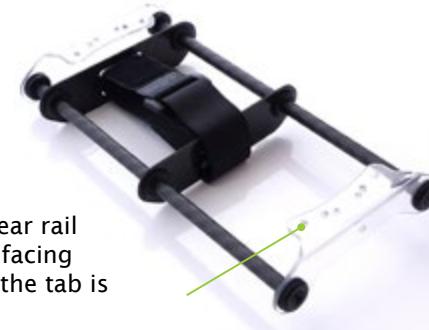
x4

3

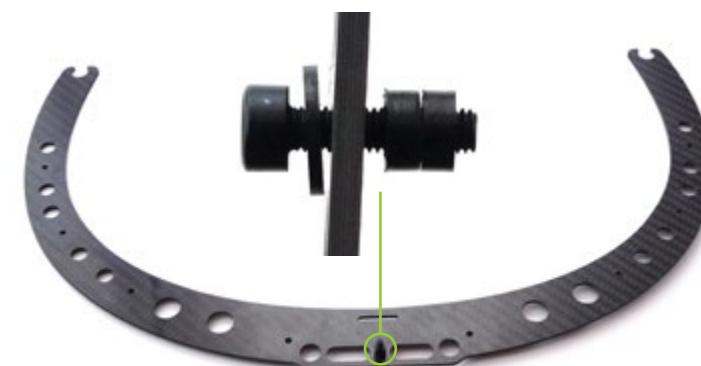
Slide the battery plates onto the gear rail tubes followed by the gear rail brackets as show below.



Ensure the gear rail brackets are facing inwards and the tab is to the top

**4**

Fit the M3 x 12mm screw through the landing gear plate and add 2 of the nylon spacers. Be sure you fit a nylon washer to all screws to protect the carbon fibre surface



5

Pass the M3 x 12mm screw through the landing gear bracket you set up earlier and secure with the M3 nyloc nut. Be sure to add a washer behind the nut to protect the polycarbonate part. This part shouldn't be fully tightened until after the landing gear assembly has been fitted to the craft.

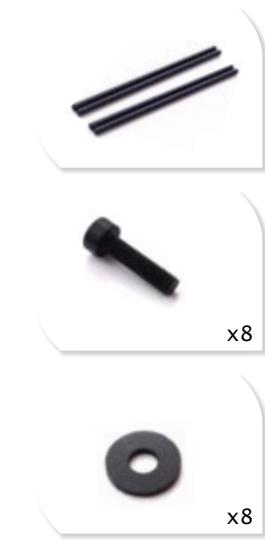
**6**

Repeat steps 4 and 5 with the second landing gear plate so your setup looks like this.

**7**

Attach the four M3 x 12mm screws through the landing gear plates into the threaded ends of the gear rail tubes; place a nylon washer under all of the screws. Try not to over tighten, just make firm contact.

NOTE: When tightening each screw make sure you secure the opposite end. Failure to do so may damage the bond causing the inner tube to spin. There is no functional or structural disadvantage if this were to happen - just secure both ends whilst tightening.

**8**

The remaining gear rail tubes can now be attached as landing gear brace tubes. Place two on each side at your desired spacing.



9

Fit the rubber grommets to the end of the landing gear main plates and slide the landing gear skids through and make even the protruding ends...



...apply the skid stickers. Most prefer to identify the rear with the high visibility stickers but this is entirely your choice...



...finally slide the Vinyl Cap over the stickers of all four skid ends.

10

The final step is to affix the Droidworx Landing Gear Sticker to the front landing gear plate and your setup should look something like this.



EXTENDED LANDING GEAR ASSEMBLY

Gear rail bracket

2



Battery plate carbon fibre

2



Battery strap

1



7mm carbon fibre gear rail tube

6



Droidworx landing gear sticker

1



Landing gear skids extended

2



Vinyl end cap

4



Landing gear plate extended

2



Fluro sticker red

2



Fluro sticker silver

2



M3x12mm socket head cap screw

14



M3 alloy low profile nyloc nut

2



M3x2mm nylon spacer

4



M3 nylon washer

16



Rubber grommet

12



1

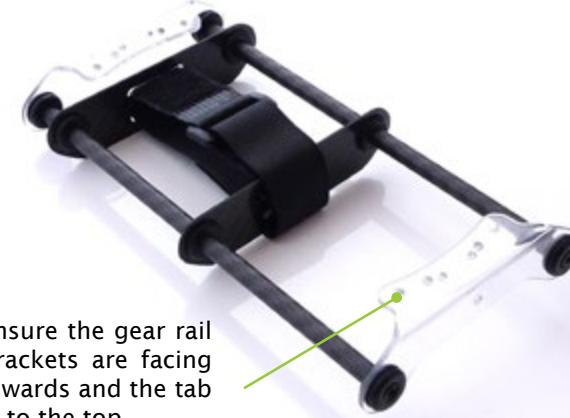
Fit the four rubber grommets to the poly-composite gear rail brackets as shown.

**2**

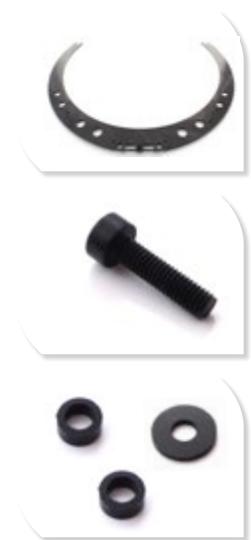
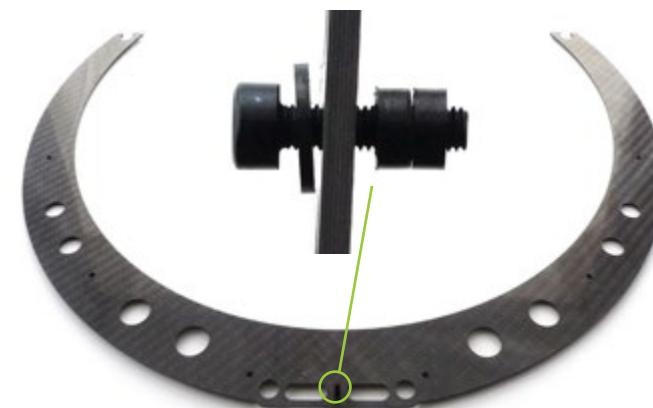
Fit the four rubber grommets to the carbon-fibre battery plates then feed the battery strap through the slots and loop.

**3**

Slide the battery plates onto the gear rail tubes followed by the gear rail brackets as show below.

**4**

Fit the M3 x 12mm screw through the landing gear plate and add 2 of the nylon spacers. Be sure you fit a nylon washer to all screws to protect the carbon fibre surface.



5

Pass the M3 x 12mm screw through the landing gear bracket you set up earlier and secure with the M3 nyloc nut. Be sure to add a washer behind the nut to protect the polycarbonate part. This part shouldn't be fully tightened until after the landing gear assembly has been fitted to the craft.

**6**

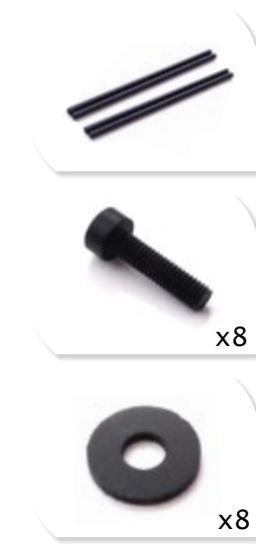
Attach the M3 x 12mm screws through the landing gear plates into the threaded ends of the gear rail tubes; place a nylon washer under all of the screws. Try not to over tighten, just make firm contact.

**7**

Repeat steps 4 to 6 with the second landing gear plate so your setup looks like this.

**8**

The remaining gear rail tubes can now be attached as landing gear brace tubes. Place two on each side at your desired spacing.



9

Fit the rubber grommets to the end of the landing gear main plates and slide the landing gear skids through and make even the protruding ends...



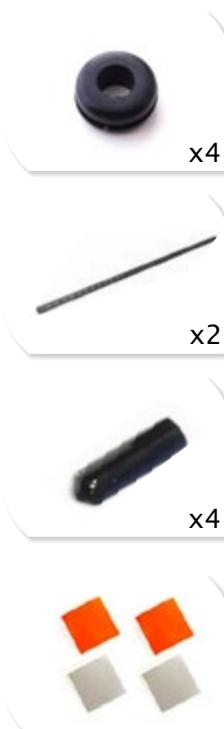
...apply the skid stickers. Most prefer to identify the rear with the high visibility stickers but this is entirely your choice...



...finally slide the Vinyl Cap over the stickers of all four skid ends.

10

The final step is to affix the Droidworx Landing Gear Sticker to the front landing gear plate and your setup should look something like this.



PART 2: CENTER PLATE AND BOOM ASSEMBLY INSTRUCTIONS



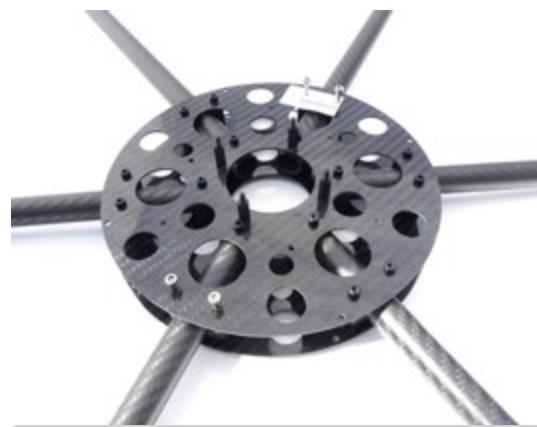
ADX-3



ADX-4



AD-4



AD-6



AD-8

ADX-3 , HL AND 360

■ Center Plate 6/X3 HL

2



■ ADX-3S - Boom 310mm HL OR
ADX-3HL - Boom 355mm HL

3



■ Boom bracket inner

6



■ Boom bracket outer

6



■ M3x35mm stainless socket head screw

4



■ M3x27mm socket head cap screw

11



■ M3 alloy low profile nyloc nut

11



■ M3 stainless nyloc nut

4



■ M3x20mm nylon spacer

6



■ Universal adapter plate

1



■ Standoffs 12mm

14



■ M3 nylon nut

14



■ M3x6mm nylon machine screws

14



1

Take a moment to familiarise yourself with the centre plate setup to get an understanding which holes relates to which parts. Take one of the plates and lay it out with the notch at the top and the sticker facing up.

The sticker ensures you have the plate the correct side up and indicates the front of the plate.



— Lines indicate the boom mount triangle pattern used for all models.

○ Circles show the holes used for dome fixing.

□ Squares represent the remaining holes you can attach the standoffs to. This is all dependent on which electronics you will be using. In this guide we will demonstrate how to attach the Universal Adapter Plate we send with all of our crafts.

2

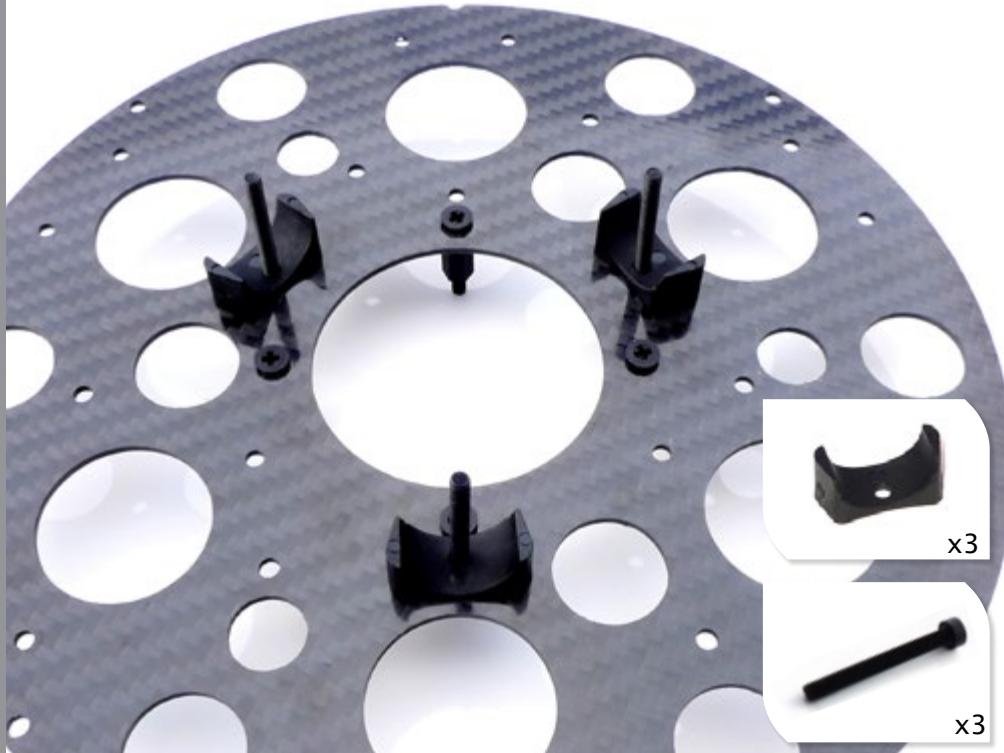
Fit the electronics standoffs by slotting the supplied nylon M3 x 6mm countersunk screws through the desired holes from the underside. Please ensure the holes for the dome fixing and the triangle boom mounting pattern are not used for this.



NOTE: For this model the curve of boom brackets face inward following the curvature of the plate.

3

Push the M3 x 27mm alloy screws through the centre row of the boom mount pattern. Turning the plate upside down slot 3 of the boom bracket inners onto these screws.



4

Lay the booms over the protruding screws. You will notice the other end of the boom has a locating hole for the engine mount. Please ensure this is facing down (top side of the plate) at this part of the procedure. If you can see it at this point you have the booms upside down.



5

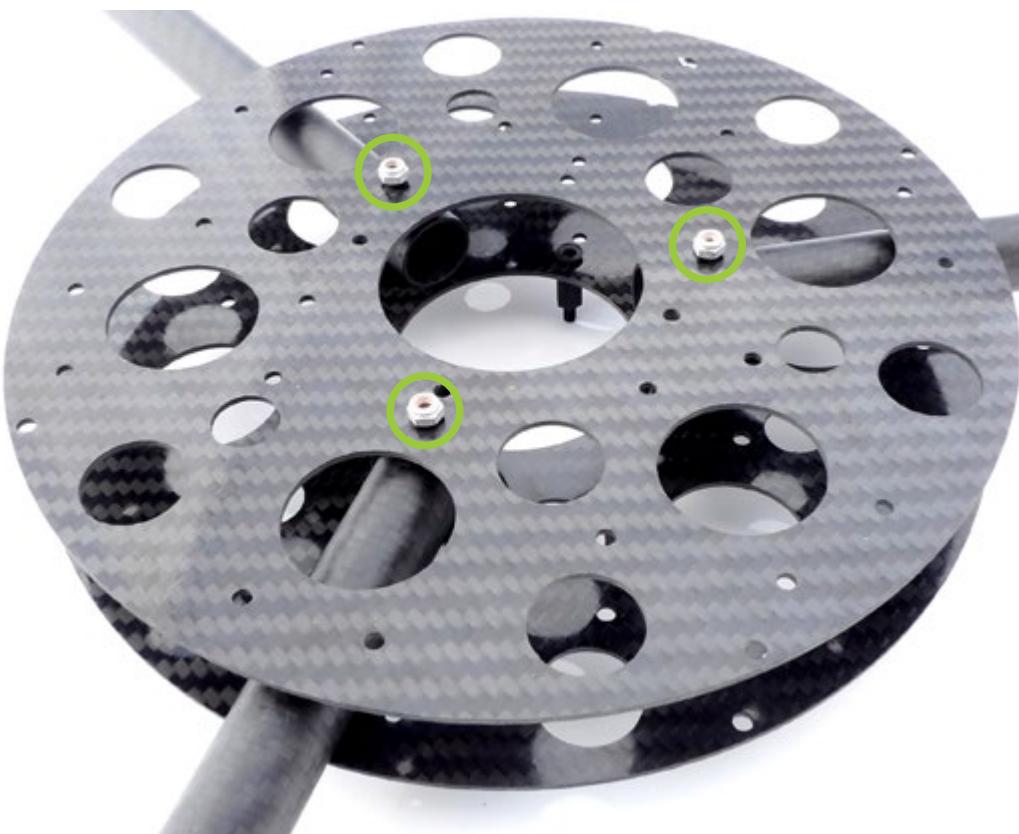
Place the remaining 3 boom bracket inners on top of the booms through the screws.



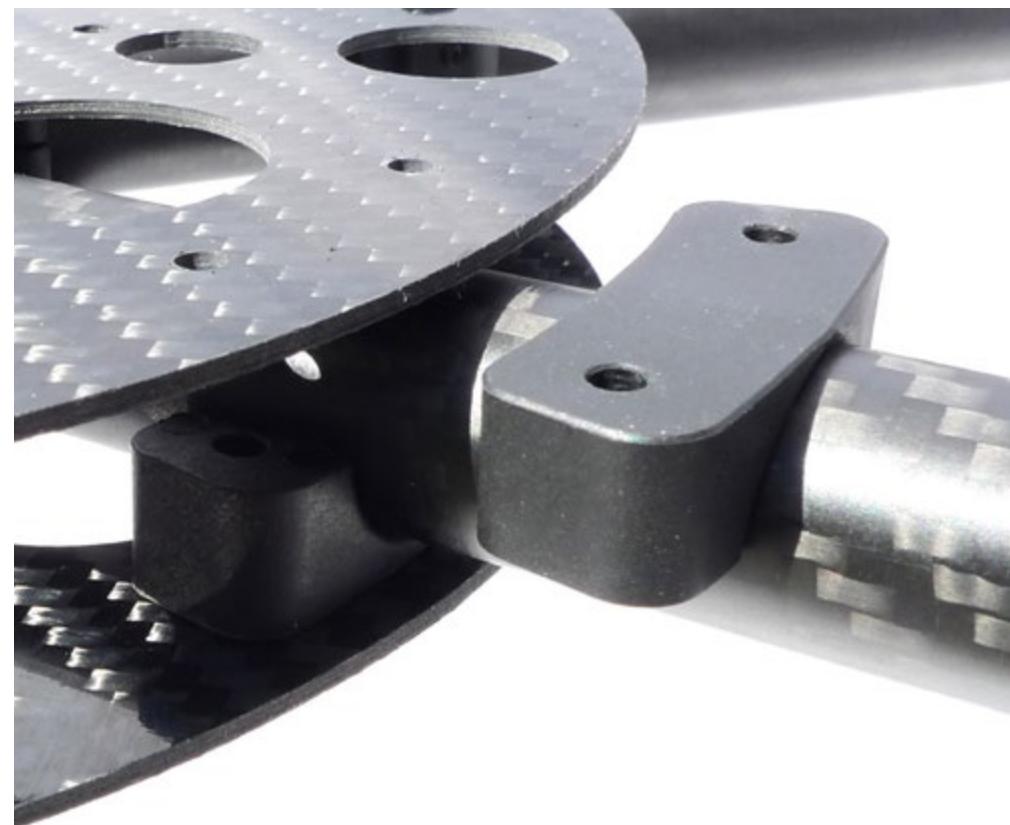
6

Position the second centre plate over the boom cluster aligning the hole pattern and front notches so the screws are showing.

Fit 3 of the M3 alloy nyloc nuts to the screws - do not tighten them, just make them secure whilst you work your way around.

**7**

Slide the outer boom brackets in place. One above the boom and one below till the holes align. These also follow the curvature of the plates.



8

Fit the M3 x 27mm screws through the top plate connecting both plates and boom brackets.



x2

9

Affix 20mm nylon spacers in the remaining mounting holes around the center plate with M3 x 27mm alloy screws.



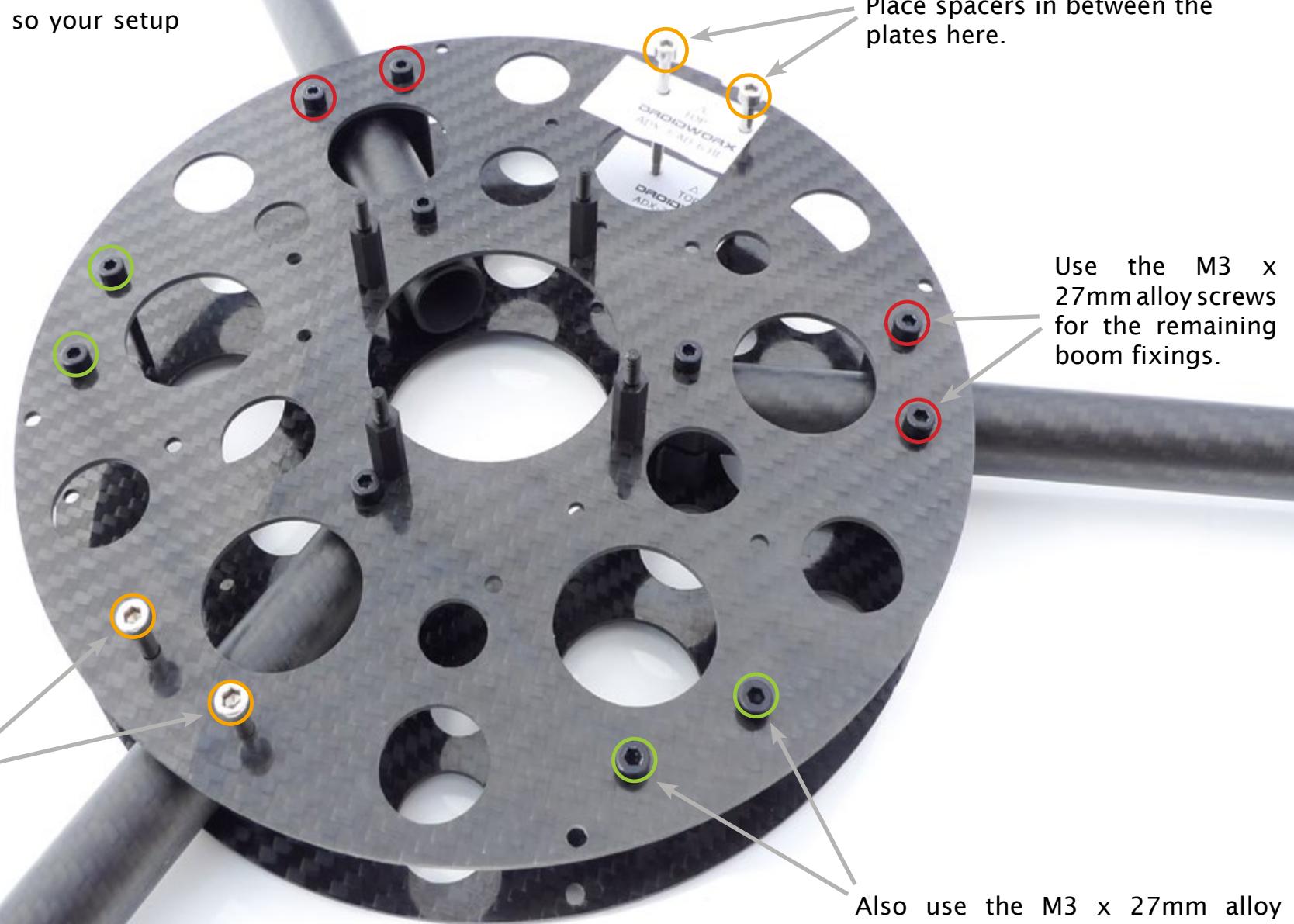
x2



x2

10

Repeat steps 7 to 9 so your setup looks like this...



11

Finally screw the remaining M3 alloy nuts to all of the alloy screws and tighten, leaving the stainless landing gear mounting screws loose. You should now have a complete setup that looks like this.



x8

ADX-4 S, HL AND 360

Center Plate AD(X)-4

2



ADX-4S - Boom 310mm HL OR
ADX-4HL - Boom 355mm HL

4



Boom bracket inner

8



Boom bracket outer

8



M3x35mm stainless socket head screw

4



M3x27mm socket head cap screw

16



M3 alloy low profile nyloc nut

16



M3 stainless nyloc nut

4



M3x20mm nylon spacer

8



Universal adapter plate

1



Standoffs 12mm

16



M3 nylon nut

16



M3x6mm nylon machine screw

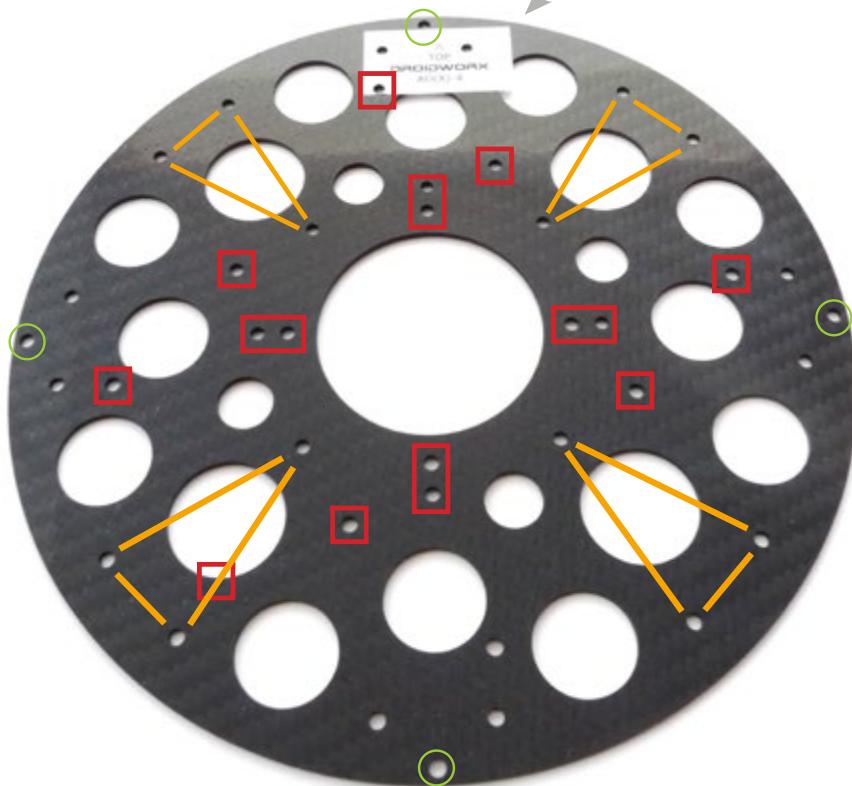
16



1

Take a moment to familiarise yourself with the centre plate setup to get an understanding which holes relates to which parts. Take one of the plates and lay it out with the sticker facing up as shown below.

The sticker ensures you have the plate the correct side up and indicates the front of the plate.

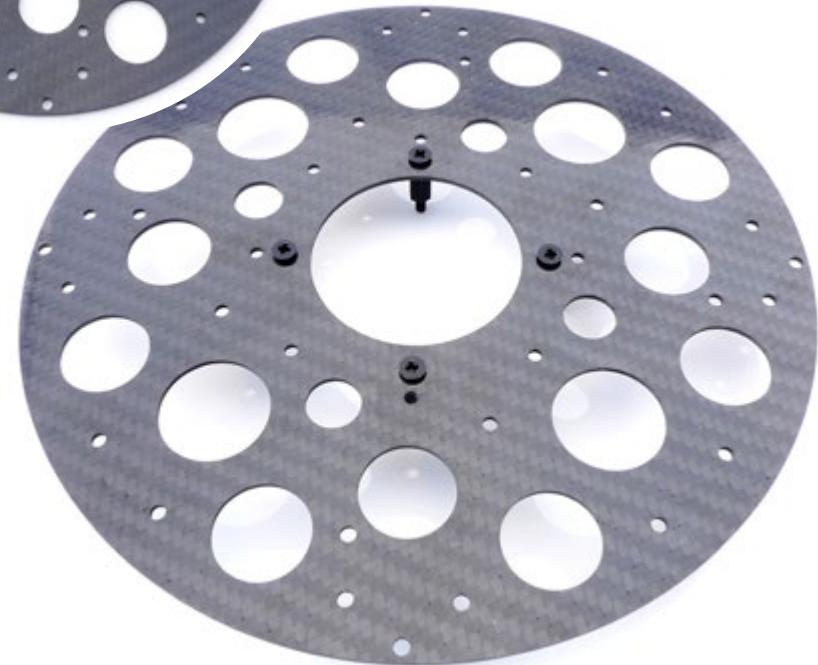
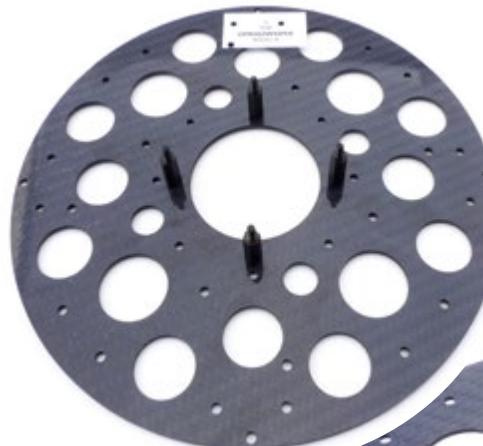


— Lines indicate the boom mount triangle pattern used for all models.

○ Circles show the holes used for dome fixing.

2

Fit the electronics standoffs by slotting the supplied nylon M3 x 6mm countersunk screws through the desired holes from the underside. Please ensure the holes for the dome fixing and the triangle boom mounting pattern are not used for this.

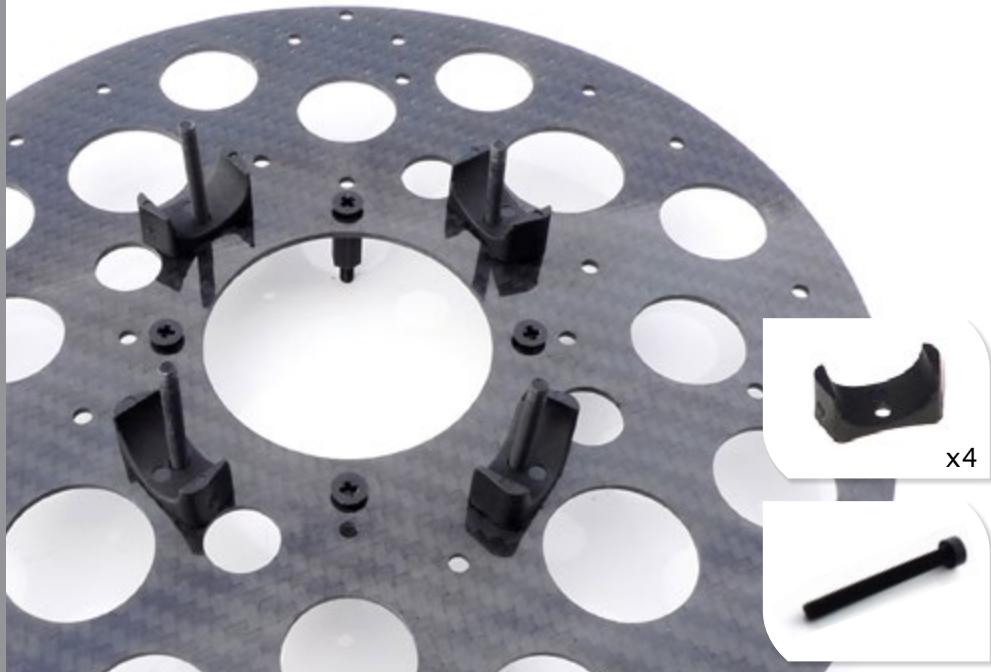


NOTE: For this model the curve of boom brackets face inward following the curvature of the plate.



3

Push the M3 x 27mm alloy screws through the centre row of the boom mount pattern. Turning the plate upside down slot the boom bracket inners onto these screws.



4

Lay the booms over the protruding screws. You will notice the other end of the boom has a locating hole for the engine mount. Please ensure this is facing down (top side of the plate) at this part of the procedure. If you can see it at this point you have the booms upside down.



x4

5

Place the remaining boom bracket inners on top of the booms through the screws.



x4

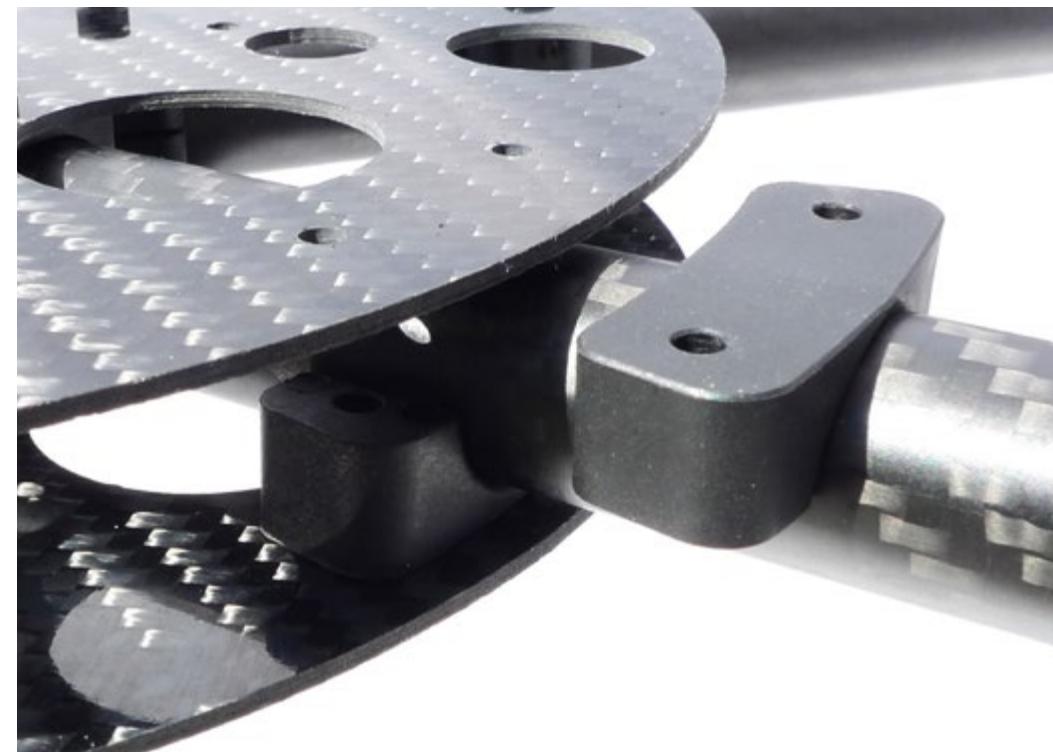
6

Position the second centre plate over the boom cluster aligning the hole pattern and front notches so the screws are showing.

Fit the M3 alloy nyloc nuts to the screws - do not tighten them, just make them secure whilst you work your way around.

**7**

Slide the outer boom brackets in place. One above the boom and one below till the holes align. These also follow the curvature of the plates.



8

Fit the M3 x 27mm screws through the top plate connecting both plates and boom brackets.



x2

9

Affix 20mm nylon spacers in the remaining mounting holes around the center plate with M3 x 27mm alloy screws.



x2



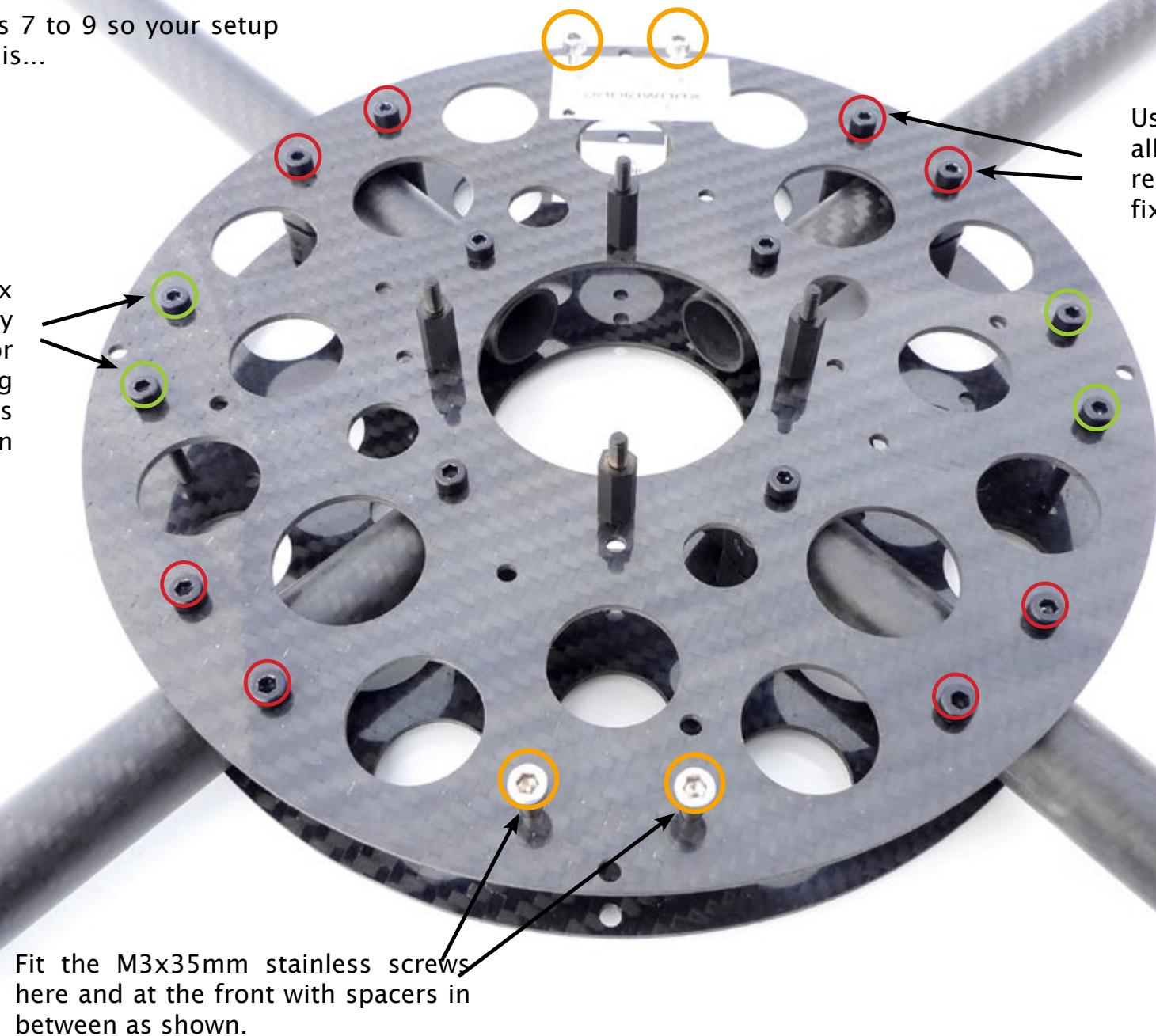
x2

10

Repeat steps 7 to 9 so your setup looks like this...

Use the M3 x 27mm alloy screws for the remaining mounting holes with spacers in between.

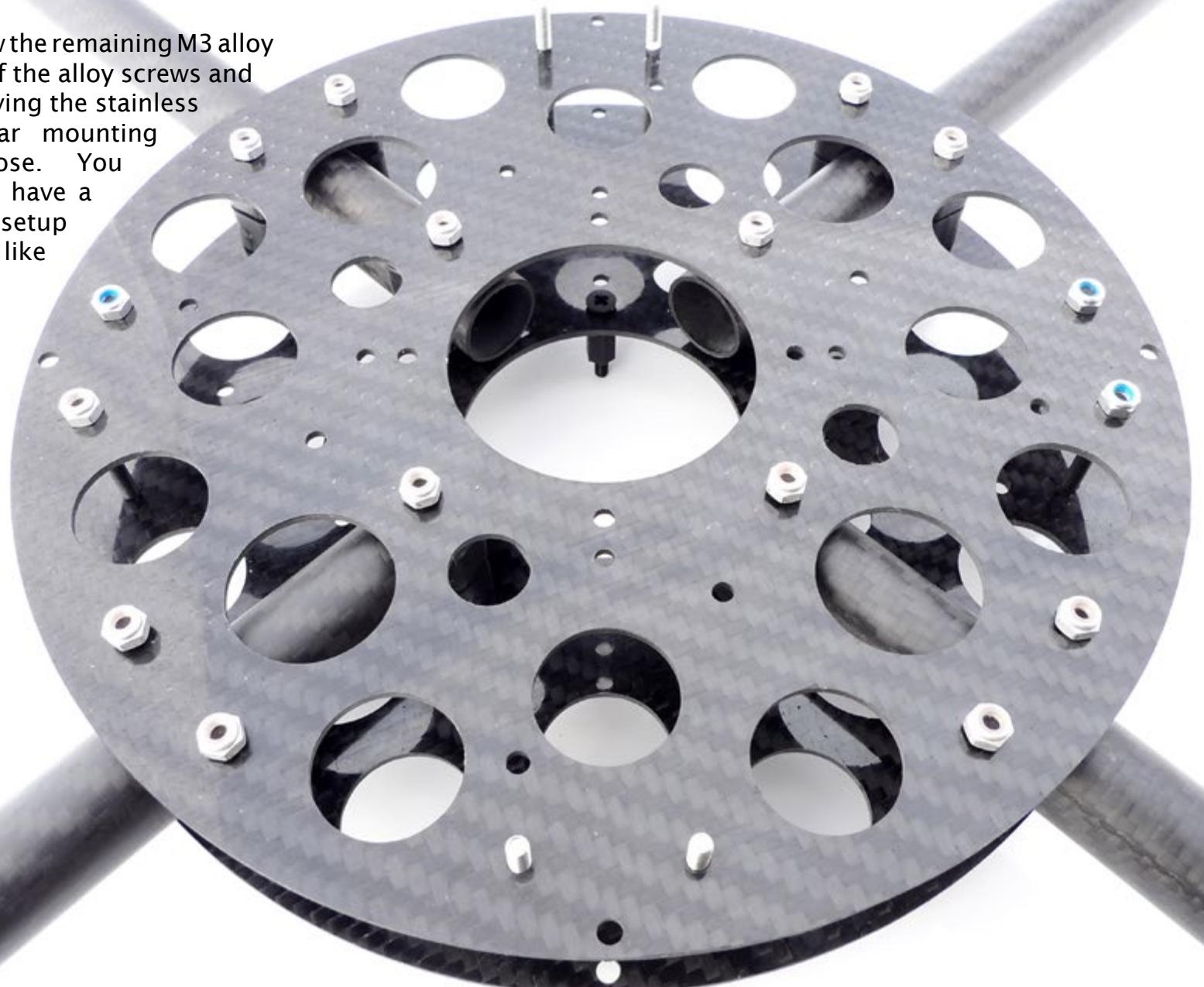
Use the M3 x 27mm alloy screws for the remaining boom fixings.



Fit the M3x35mm stainless screws here and at the front with spacers in between as shown.

11

Finally screw the remaining M3 alloy nuts to all of the alloy screws and tighten, leaving the stainless landing gear mounting screws loose. You should now have a complete setup that looks like this.



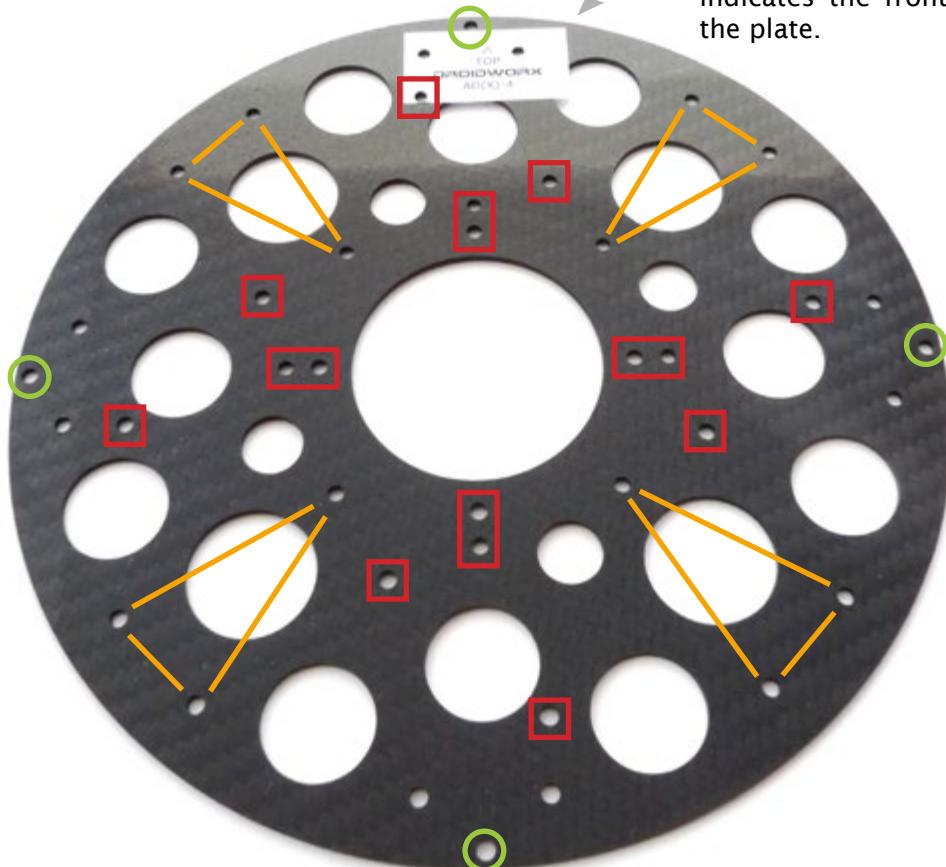
x12

AD-4 S, HL AND 360

■ Center Plate AD(X)-4	2		■ M3 alloy low profile nyloc nut	16	
■ AD-4S - Boom 310mm Standard OR AD-4HL - Boom 310mm HL	4		■ M3 stainless nyloc nut	4	
■ Boom bracket inner	8		■ M3x20mm nylon spacer	8	
■ Boom bracket outer	8		■ Universal adapter plate	1	
■ M3x35mm stainless socket head screw	4		■ Standoffs 12mm	8	
■ M3x27mm socket head cap screw	16		■ M3 nylon nut	8	
			■ M3x6mm nylon machine screws	8	

1

Take a moment to familiarise yourself with the centre plate setup to get an understanding which holes relates to which parts. Take



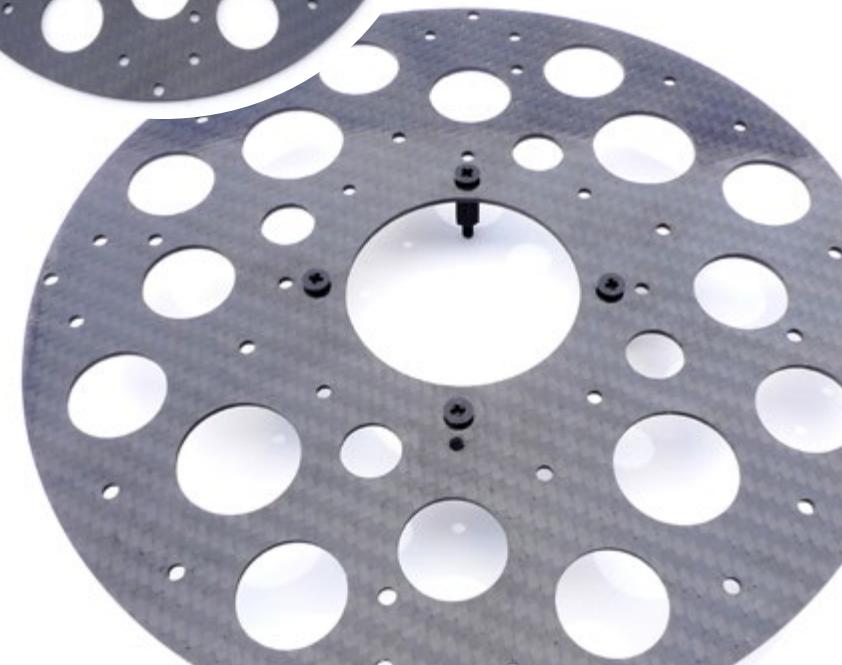
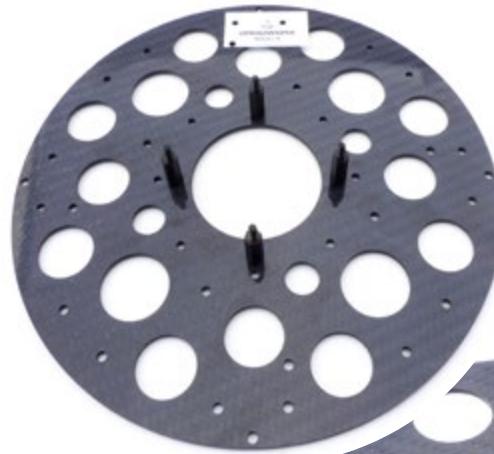
— Lines indicate the boom mount triangle pattern used for all models.

○ Circles show the holes used for dome fixing.

The sticker ensures you have the plate the correct side up and indicates the front of the plate.

2

Fit the electronics standoffs by slotting the supplied nylon M3 x 6mm countersunk screws through the desired holes from the underside. Please ensure the holes for the dome fixing and the triangle boom mounting pattern are not used for this.

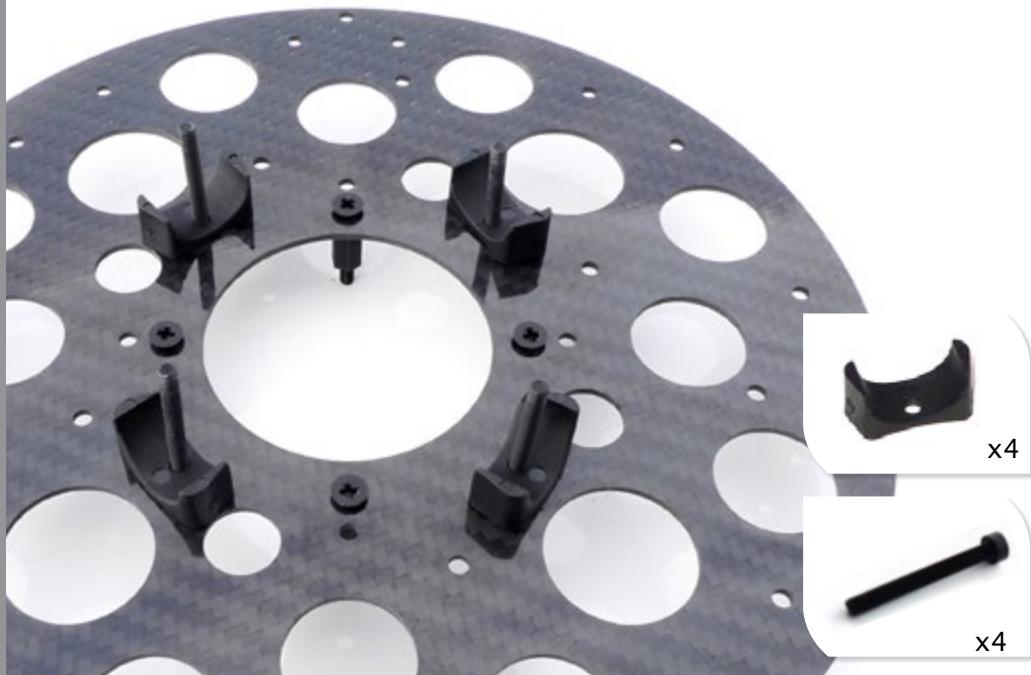


NOTE: For this model the curve of boom brackets face inward following the curvature of the plate.



3

Push the M3 x 27mm alloy screws through the centre row of the boom mount pattern. Turning the plate upside down slot the boom bracket inners onto these screws.



4

Lay the booms over the protruding screws. You will notice the other end of the boom has a locating hole for the engine mount. Please ensure this is facing down (top side of the plate) at this part of the procedure. If you can see it at this point you have the booms upside down.



5

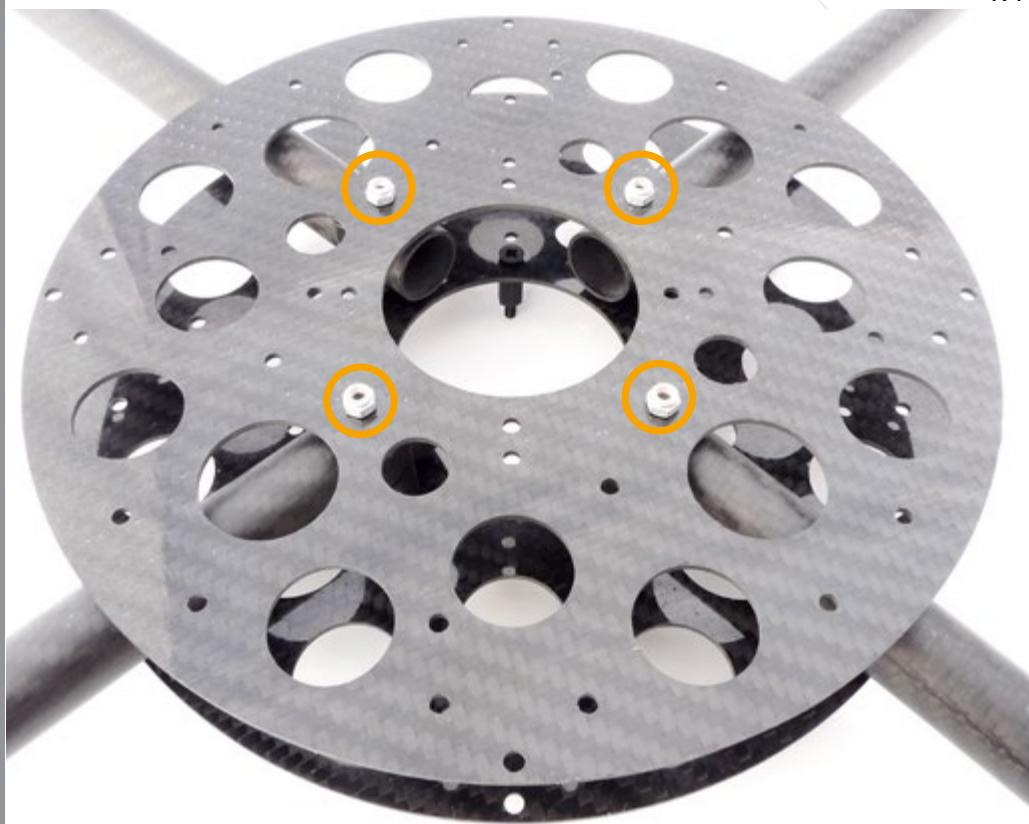
Place the remaining boom bracket inners on top of the booms



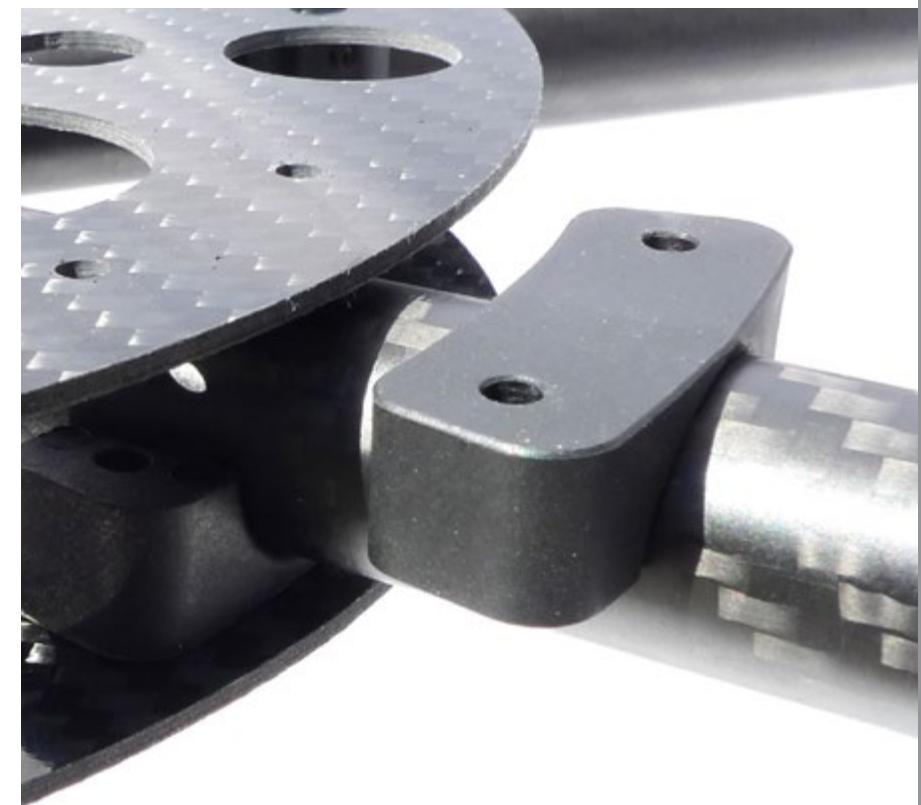
6

Position the second centre plate over the boom cluster aligning the hole pattern and front notches so the screws are showing.

Fit the M3 alloy nyloc nuts to the screws - do not tighten them, just make them secure whilst you work your way around.

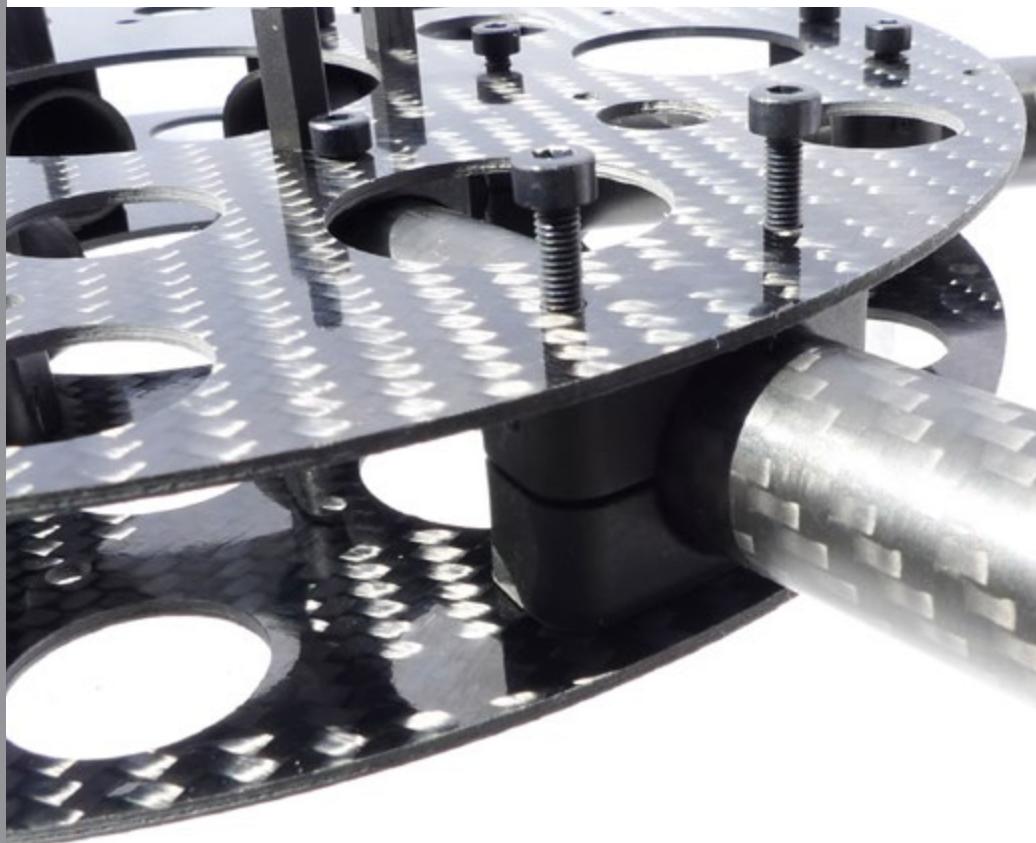
**7**

Slide the outer boom brackets in place. One above the boom and one below till the holes align. These also follow the curvature of the plates.



8

Fit the M3 x 27mm screws through the top plate connecting both plates and boom brackets.



x2

9

Affix 20mm nylon spacers in the remaining mounting holes around the center plate with M3 x 27mm alloy screws.



x2



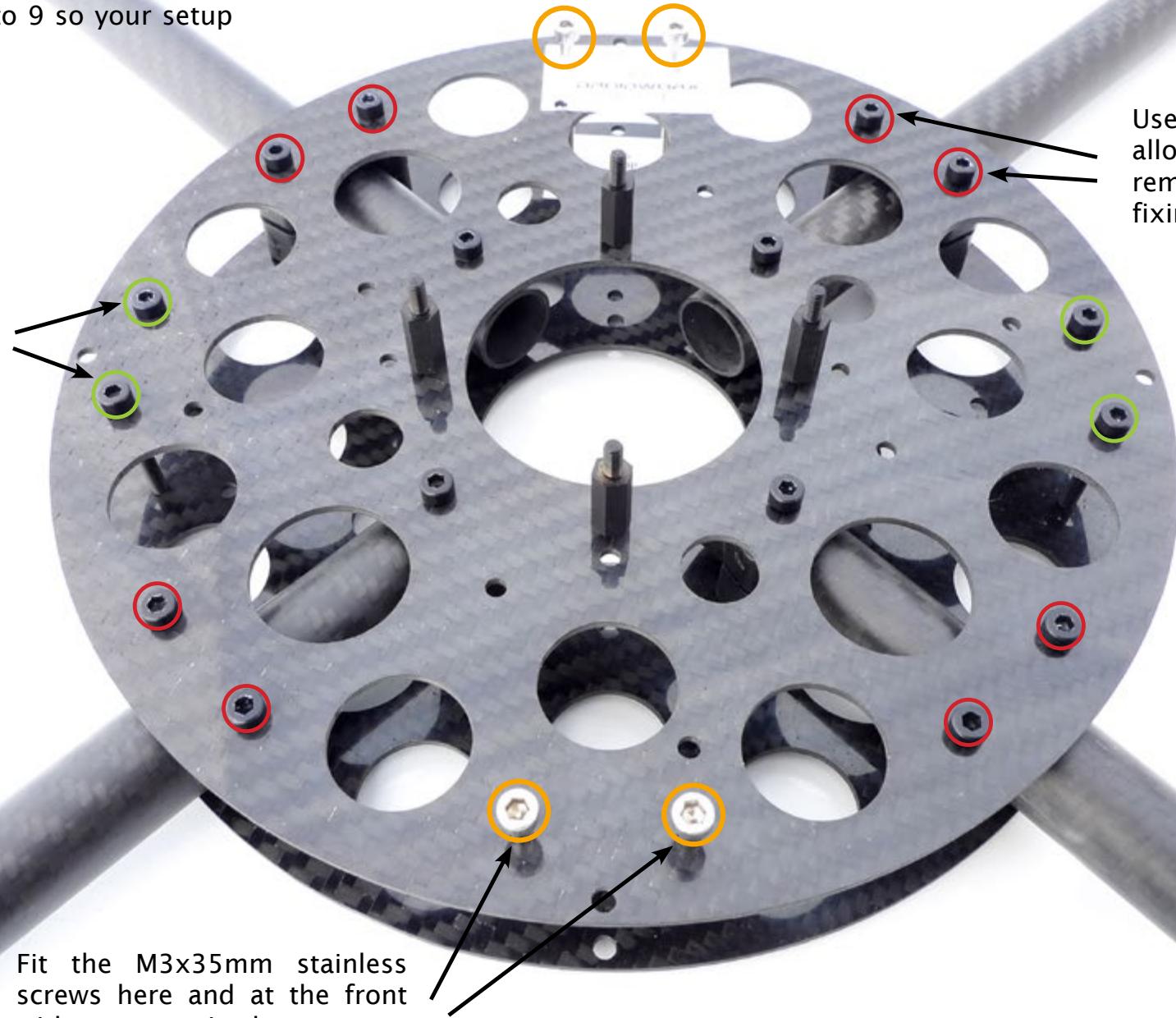
x2

10

Repeat steps 7 to 9 so your setup looks like this...

Use the M3x 27mm alloy screws for the remaining mounting holes with spacers in between.

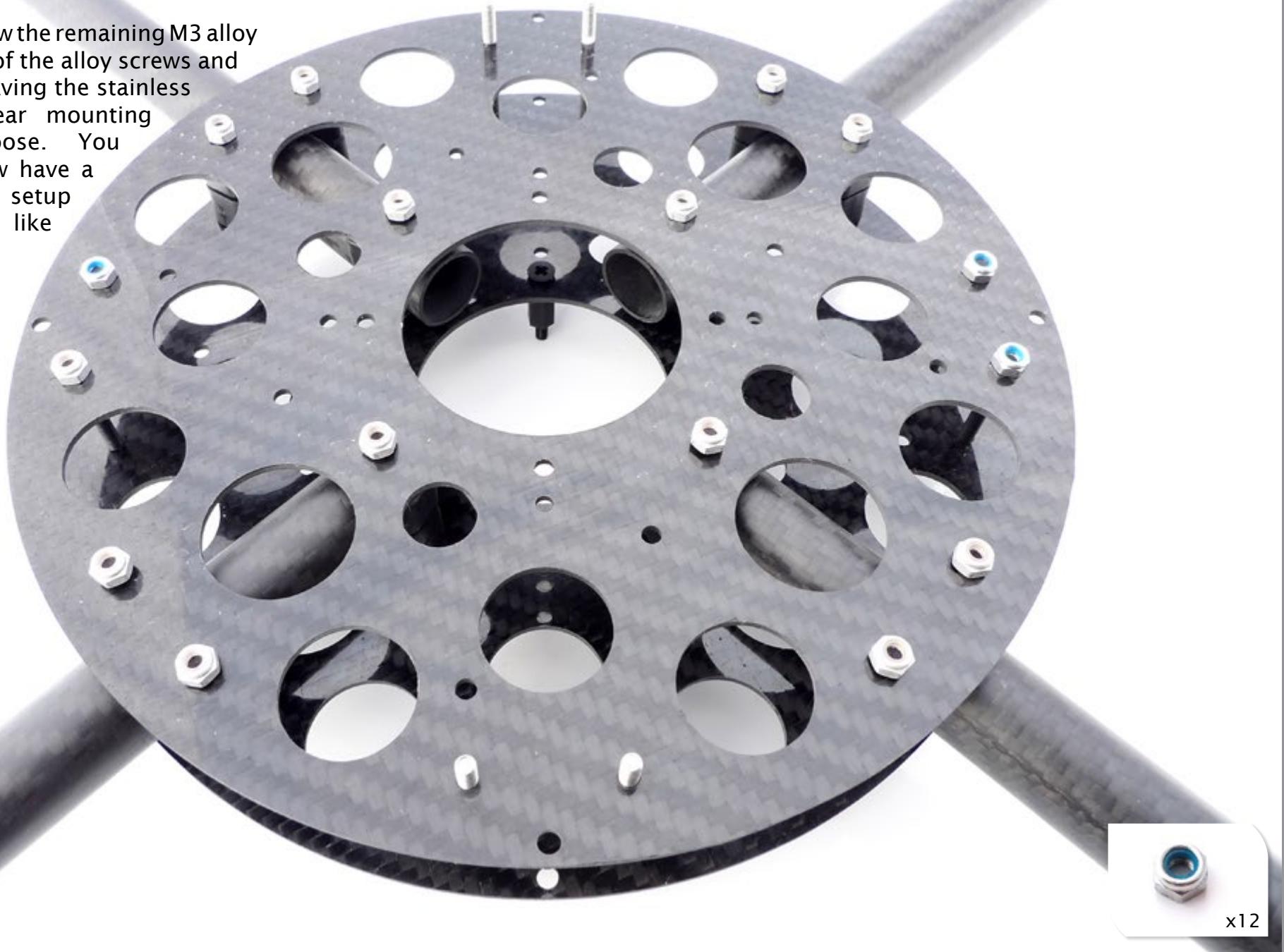
Use the M3 x 27mm alloy screws for the remaining boom fixings.



Fit the M3x35mm stainless screws here and at the front with spacers in between as shown.

11

Finally screw the remaining M3 alloy nuts to all of the alloy screws and tighten, leaving the stainless landing gear mounting screws loose. You should now have a complete setup that looks like this.



x12

AD-6 S, HL AND 360

■ AD-6S - Center Plate 6 Standard OR
AD-6HL - Center Plate 6/X3 HL

2



■ AD-6S - Boom 310mm Standard OR
AD-6HL - Boom 355mm HL

6



■ Boom bracket inner

12



■ Boom bracket outer

12



■ M3x35mm stainless socket head screw

4



■ M3x27mm socket head cap screw

14



■ M3 alloy low profile nyloc nut

14



■ M3 stainless nyloc nut

4



■ Universal adapter plate

1



■ Standoffs 12mm

14



■ M3 nylon nut

14



■ M3x6mm nylon machine screws

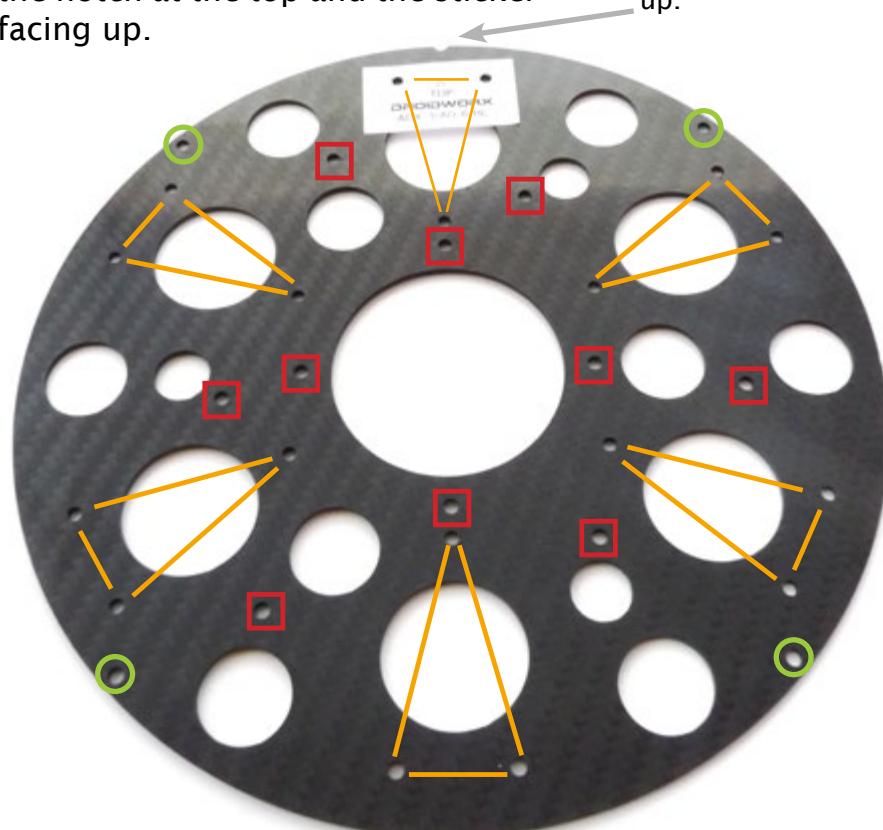
14



1

Take a moment to familiarise yourself with the centre plate setup to get an understanding which holes relates to which parts. Take one of the plates and lay it out with the notch at the top and the sticker facing up.

The notch indicates the front of the craft and the sticker ensures you have the plate the correct side up.

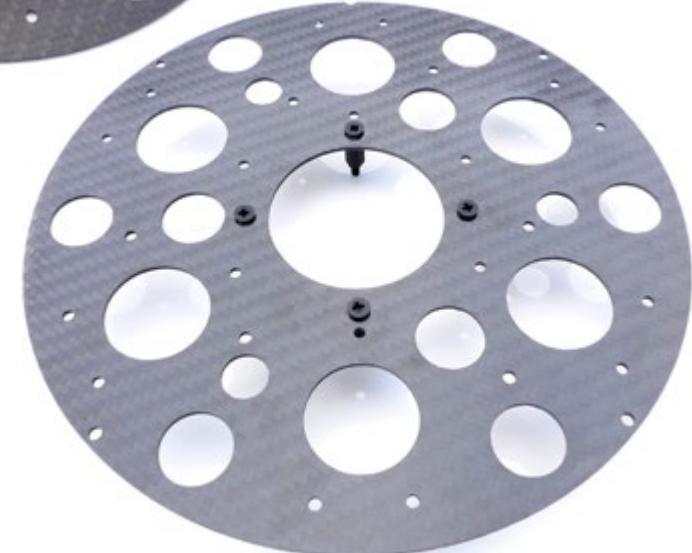


○ Circles show the holes used for dome fixing.

— Lines indicate the boom mount triangle pattern used for all models.

2

Fit the electronics standoffs by slotting the supplied nylon M3 x 6mm countersunk screws through the desired holes from the underside. Please ensure the holes for the dome fixing and the triangle boom mounting pattern are not used for this.



x4



x4

NOTE: For this model the curve of boom brackets face inward following the curvature of the plate.



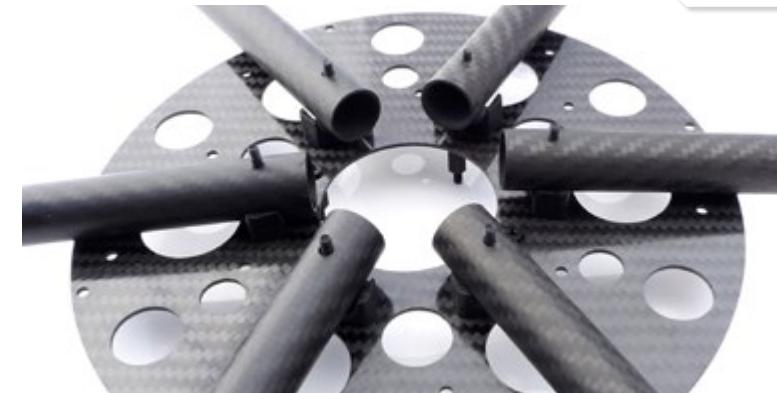
3

Push the M3 x 27mm alloy screws through the centre row of the boom mount pattern. Turning the plate upside down slot the boom bracket inners onto these screws.



4

Lay the booms over the protruding screws. You will notice the other end of the boom has a locating hole for the engine mount. Please ensure this is facing down (top side of the plate) at this part of the procedure. If you can see it at this point you have the booms upside down.



5

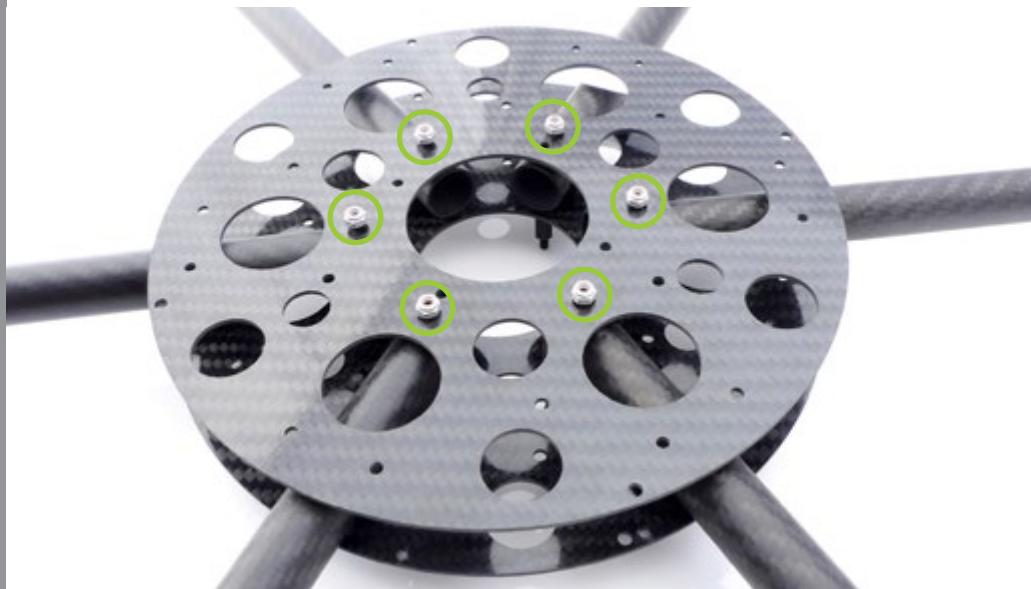
Place the remaining boom bracket inners on top of the booms through the screws.



6

Position the second centre plate over the boom cluster aligning the hole pattern and front notches so the screws are showing.

Fit the M3 alloy nyloc nuts to the screws - do not tighten them, just make them secure whilst you work your way around.



x6

7

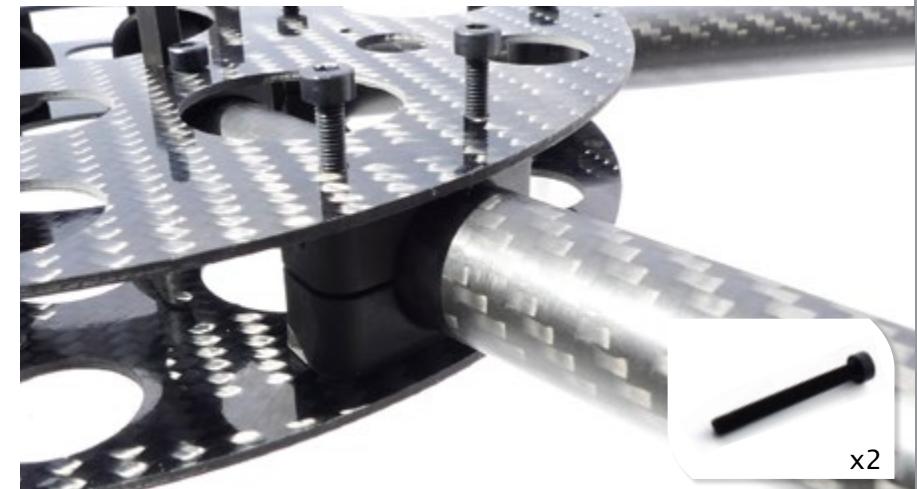
Slide the outer boom brackets in place. One above the boom and one below till the holes align. These also follow the curvature of the plates.



x2

8

Fit the M3 x 27mm screws through the top plate connecting both plates and boom brackets.



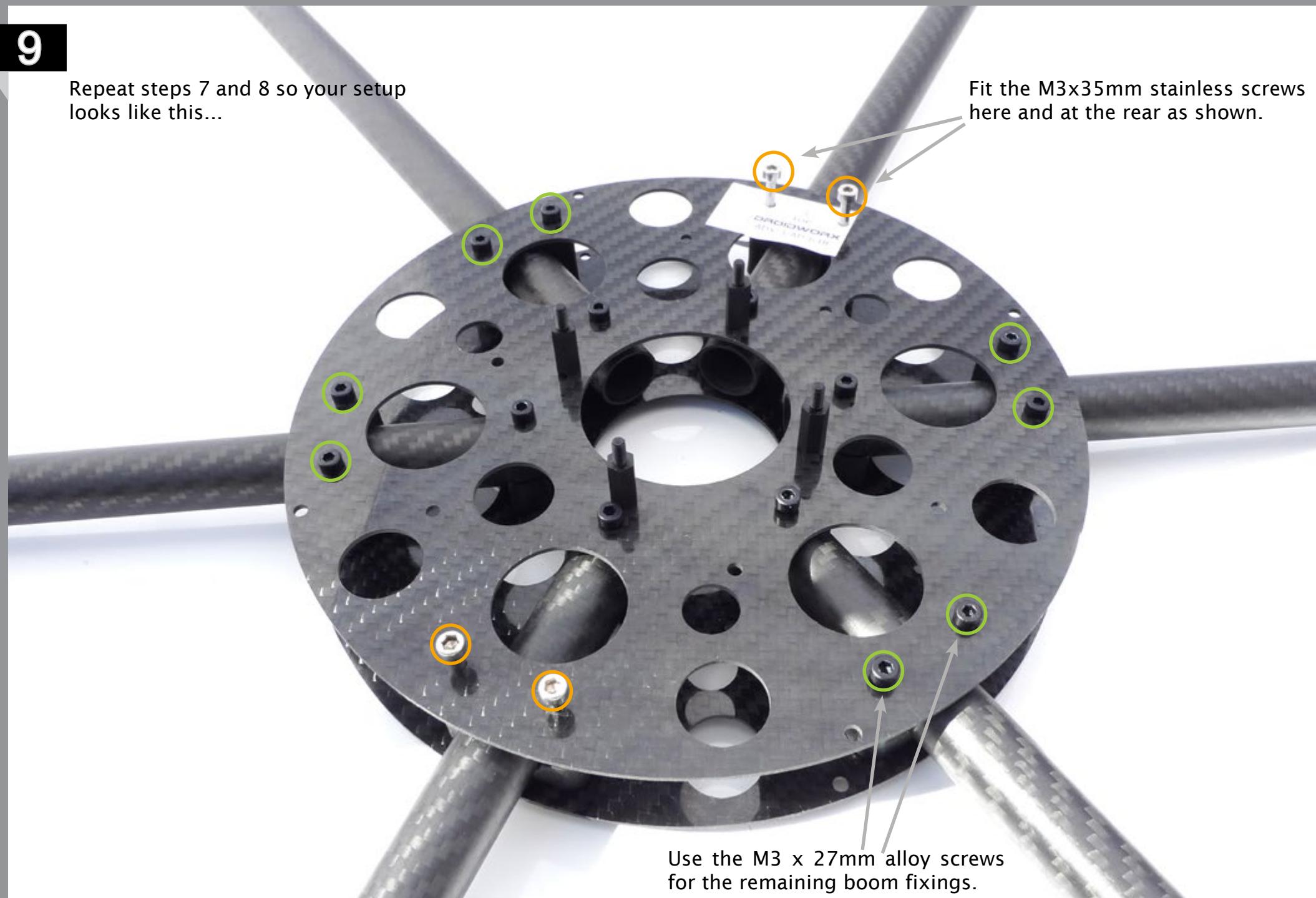
x2

9

Repeat steps 7 and 8 so your setup looks like this...

Fit the M3x35mm stainless screws here and at the rear as shown.

Use the M3 x 27mm alloy screws for the remaining boom fixings.



10

Finally screw the remaining M3 alloy nuts to all of the alloy screws and tighten, leaving the stainless landing gear mounting screws loose. You should now have a complete setup that looks like this.



x8

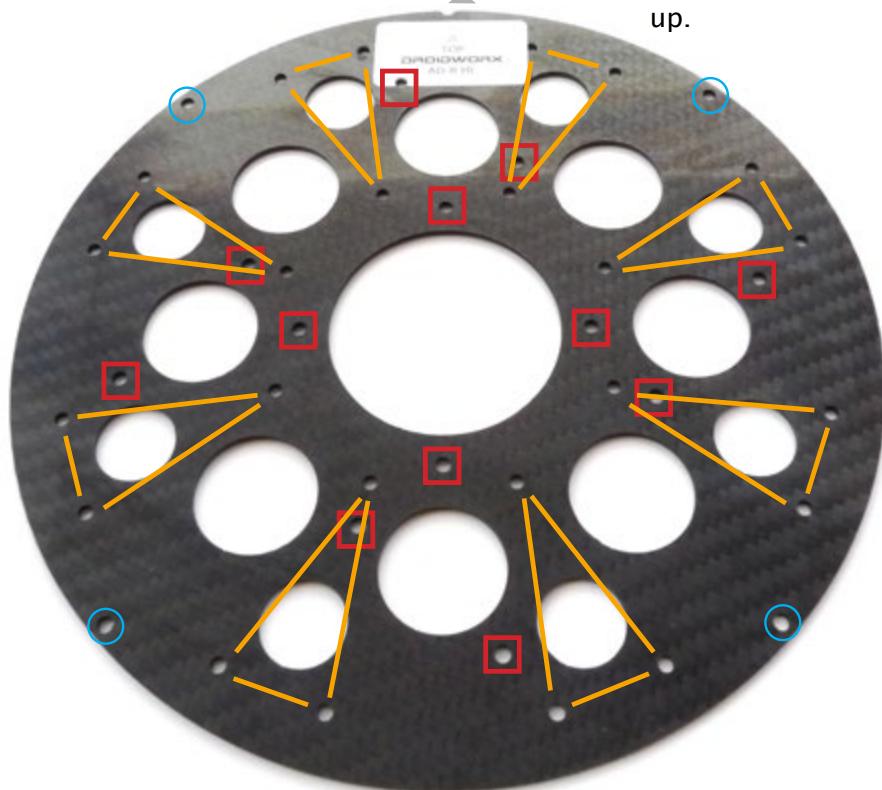
AD-8 S, HL AND 360

	AD-8S - Center plate 8 Standard OR AD-8HL - Center Plate 8 HL	2			M3 alloy low profile nyloc nut	20	
	AD-8S - Boom 355mm Standard AD-8HL - Boom 410mm HL	8			M3 stainless nyloc nut	4	
	Boom bracket inner	16			Universal adapter plate	1	
	Boom bracket outer	16			Standoffs 12mm	16	
	M3x35mm stainless socket head screw	4			M3 nylon nut	16	
	M3x27mm socket head cap screw	20			M3x6mm nylon machine screws	16	

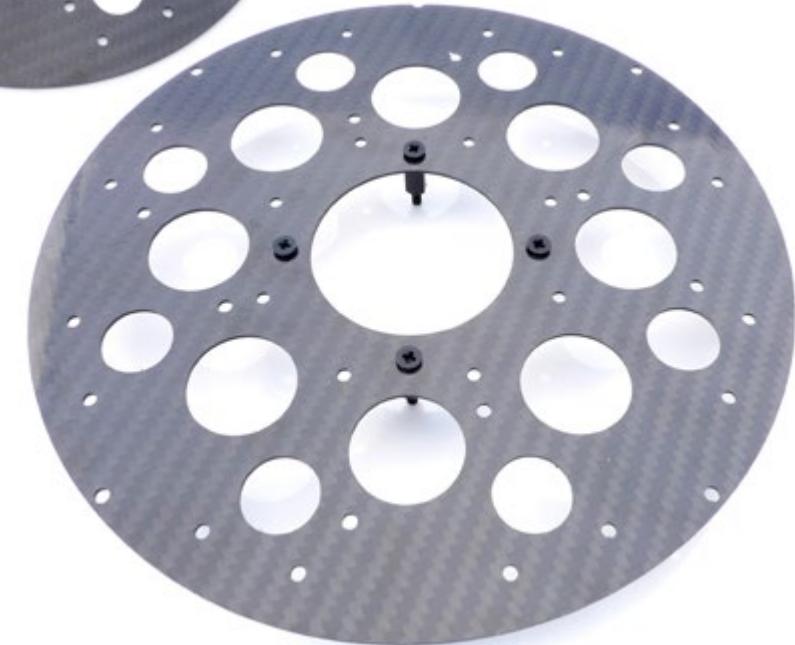
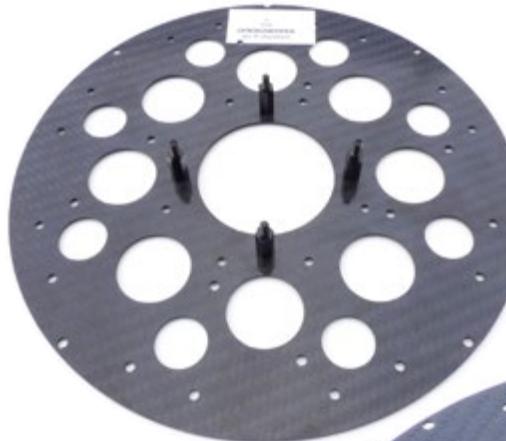
1

Take a moment to familiarise yourself with the centre plate setup to get an understanding which holes relate to which parts. Take one of the plates and lay it out with the notch at the top and the sticker facing up.

The notch indicates the front of the craft and the sticker ensures you have the plate the correct side up.

**2**

Fit the electronics standoffs by slotting the supplied nylon M3 x 6mm countersunk screws through the desired holes from the underside. Please ensure the holes for the dome fixing and the triangle boom mounting pattern are not used for this.



○ Circles show the holes used for dome fixing.

□ Squares represent the remaining holes you can attach the standoffs to. This is all dependent on which electronics you will be using. In this guide we will demonstrate how to attach the Universal Adapter Plate we send with all of our crafts.

— Lines indicate the boom mount triangle pattern used for all models.



NOTE: For this model the curve of the inner boom brackets face outward against the curvature of the plate and the outer boom brackets face inward following the curvature of the plate.



3

Push the M3 x 27mm alloy screws through the centre row of the boom mount pattern. Turning the plate upside down slot the boom bracket inners onto these screws. Remember these face outward against the curvature of the plate.



4

Lay the booms over the protruding screws. You will notice the other end of the boom has a locating hole for the engine mount. Please ensure this is facing down (top side of the plate) at this part of the procedure. If you can see it at this point you have the booms upside down.



5

Place the remaining boom bracket inners on top of the booms through the screws.



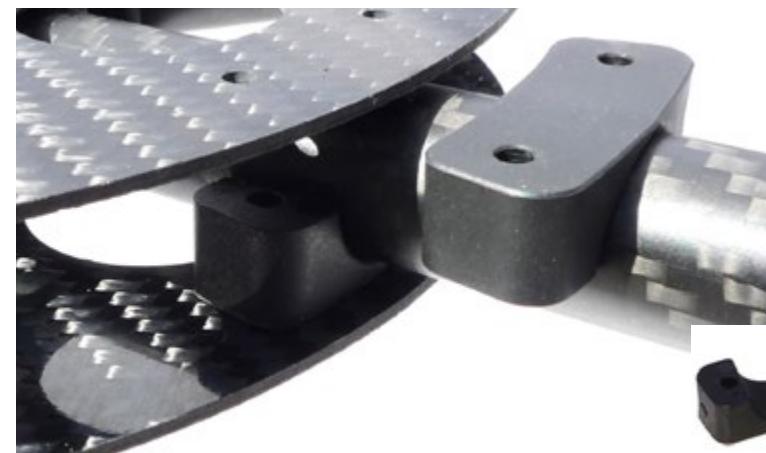
6

Position the second centre plate over the boom cluster aligning the hole pattern and front notches so the screws are showing.

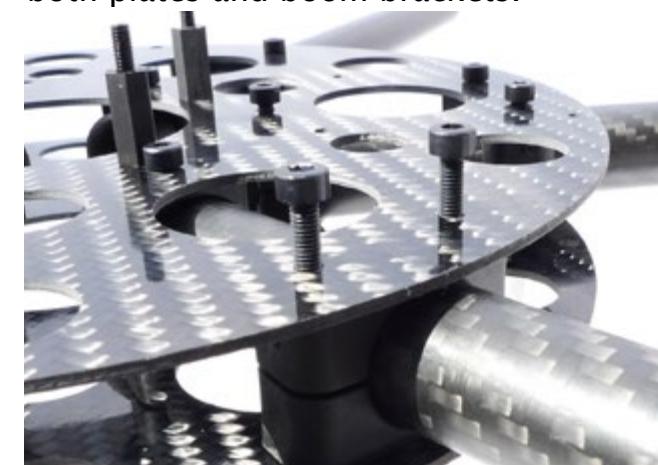
Fit the M3 alloy nyloc nuts to the screws - do not tighten them, just make them secure whilst you work your way around.

**7**

Slide the outer boom brackets in place. One above the boom and one below till the holes align. These follow the curvature of the plates.

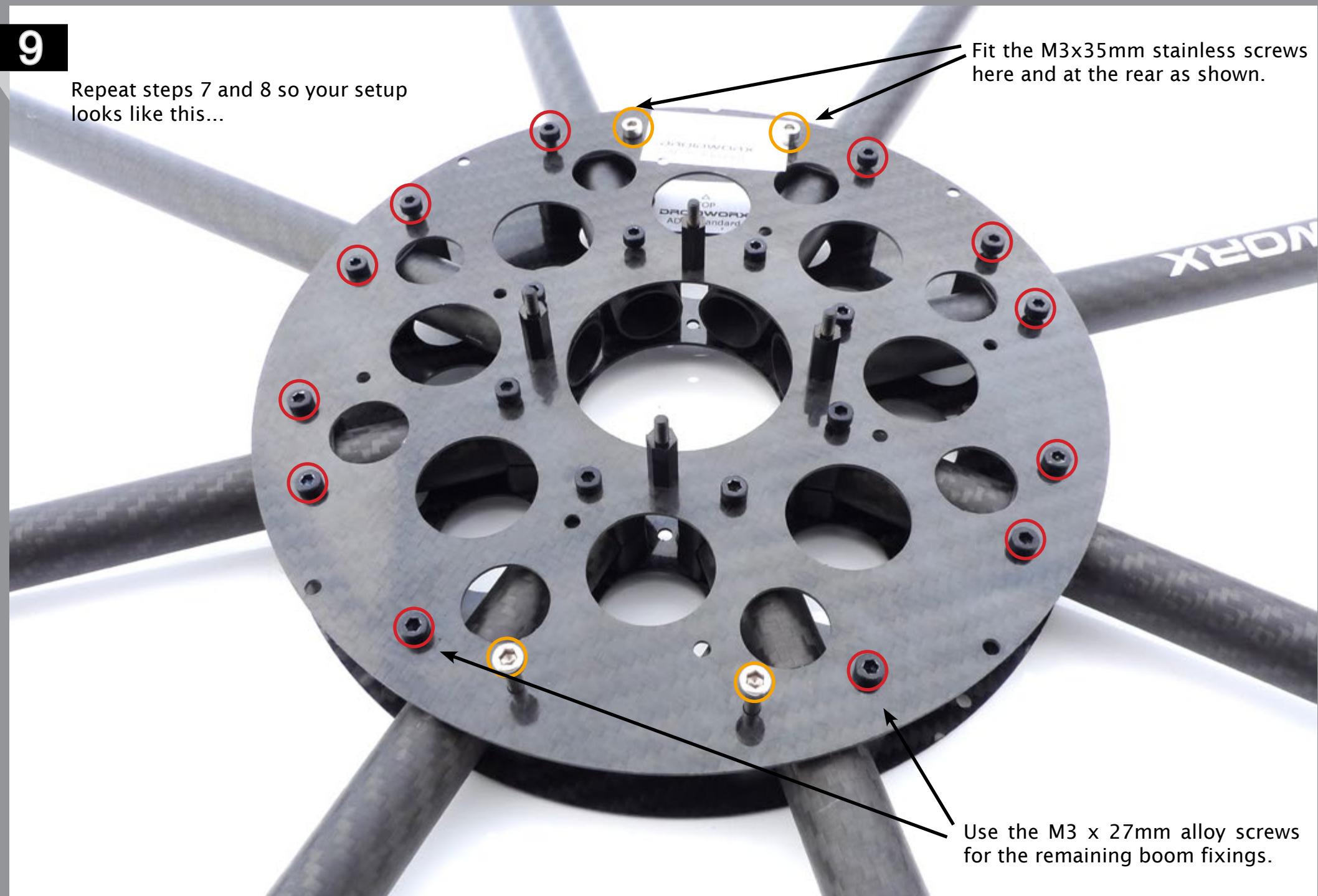
**8**

Fit the M3 x 27mm screws through the top plate connecting both plates and boom brackets.



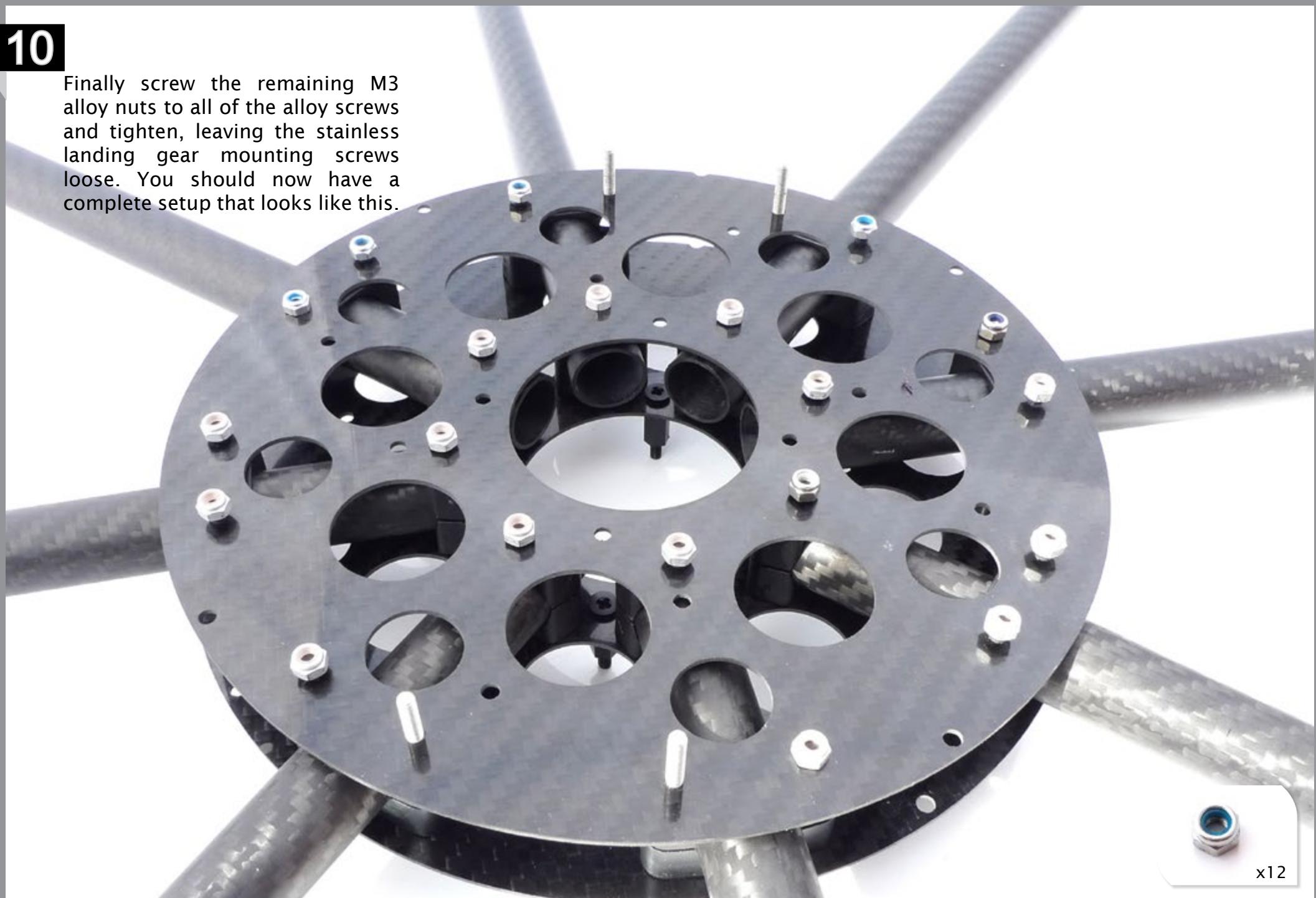
9

Repeat steps 7 and 8 so your setup looks like this...



10

Finally screw the remaining M3 alloy nuts to all of the alloy screws and tighten, leaving the stainless landing gear mounting screws loose. You should now have a complete setup that looks like this.



x12

PART 3: LANDING GEAR - CENTER PLATE ATTACHMENT INSTRUCTIONS



Instructions for ADX-3, ADX-4, AD-4 and
AD-6 Standard and HL



Instructions for AD-8 Standard and HL

INSTRUCTIONS FOR ADX-3, ADX-4 AND AD-6 STANDARD AND HL



■ Your Center Plate and Boom Setup
(AD-4 example shown above)



■ Your Landing Gear Setup
(Standard example shown above)

■ Carbon fiber gear rail bracing 2



■ Vibration isolator 2



■ M3 Stainless nyloc nut 4



1

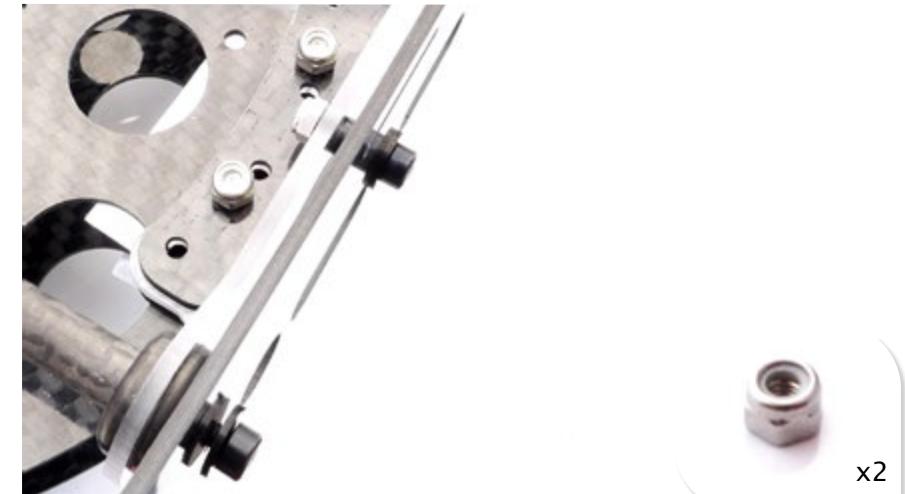
Fit the vibration dampeners to the M3 x 35mm stainless screws you left loose during the Center Plate assembly.

**2**

Place the landing gear over the M3 x 35mm mounting screws followed by the Carbon Fibre backing plate.

**3**

Secure with the M3 stainless nyloc nuts.



INSTRUCTIONS FOR ADX-8 STANDARD AND HL



Your AD-8 Center Plate and Boom Setup



Your Landing Gear Setup
(Standard example shown above)

■ Carbon fiber gear rail bracing 2



■ Vibration isolator 2



■ M3 Stainless nyloc nut 4

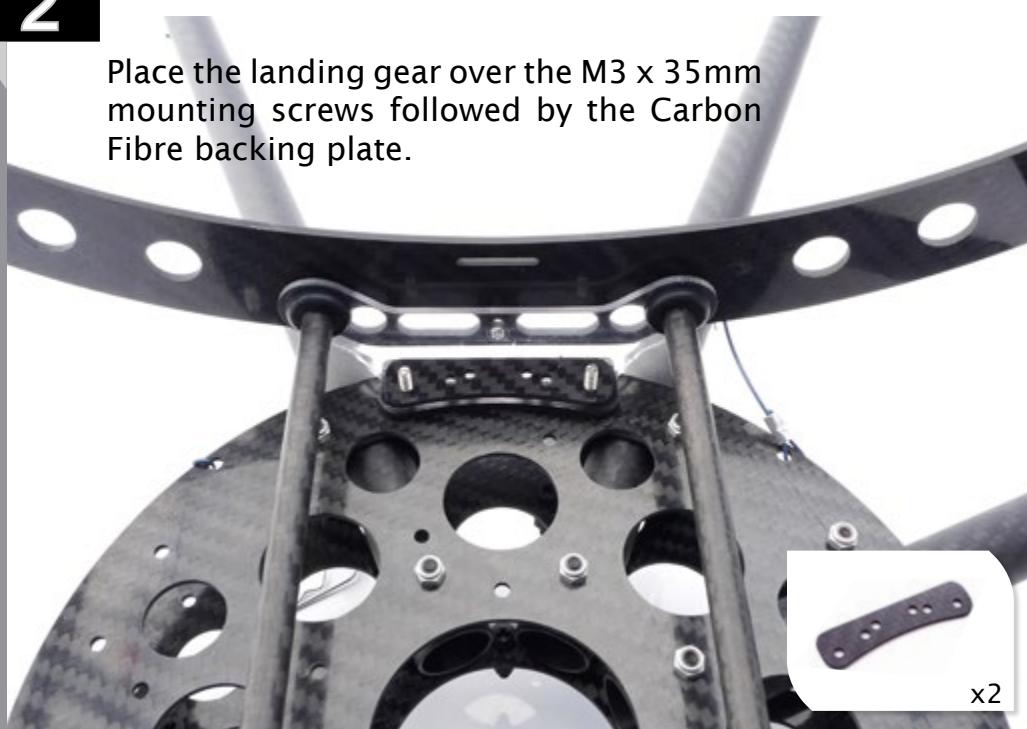


1

Fit the vibration dampeners to the M3 x 35mm stainless screws you left loose during the Center Plate assembly.

**2**

Place the landing gear over the M3 x 35mm mounting screws followed by the Carbon Fibre backing plate.

**3**

Secure with the M3 stainless nyloc nuts.



PART 4: ENGINE MOUNT ASSEMBLY



Standard 40mm Engine Mount



Heavy Lift 40mm Engine Mount

STANDARD 40MM ENGINE MOUNT

■ Engine bracket 40mm - top (dimple) 1



■ Engine mount disk 40mm SL 1



■ M3x30mm socket head cap screw 2



■ M3 stainless nyloc nut 2



■ Engine bracket 40mm - bottom 1



■ Engine Mount Boot 1



■ Heat shrink (5 cm) 1



■ M3x6 stainless machine screws 4



...and your engine!



1

Affix the engine to the engine mount disk by slotting the M3 x 6mm countersunk screws through the chamfered side of the disk and into the firewall mount holes of the engine.

**2**

Fit the two M3 x 30mm alloy engine bracket screws from the top and add the top bracket.



NOTE: You may wish to add some fuel hose before you add the engine mount boot to help secure this part in place.

**3**

Add the engine mount boot followed by some more fuel hose(if desired) then the bottom bracket.

**4**

Slide the engine mount over the boom - careful not to damage the locating dimple on the engine mount. Locate the engine in the locating hole in the boom and tighten the nuts slightly.

Heat shrink the ends of the wires to protect them from abrasion and feed through the booms.

Check for vertical alignment; if the engine is not vertical, undo the boom fixings at the center plate and twist the boom in the housing (there is only a minimal amount of movement possible) until the engine is vertical - tighten the center housing and then tighten the engine mounts.



HEAVY LIFT 40MM ENGINE MOUNT



...and your engine!



1

Fit the two M3 x 30mm alloy screw through the engine mount disk - make sure the chamfered slots are facing inward.

**2**

Affix the engine to the engine mount disk by slotting the M3 x 6mm countersunk screws through the chamfered side of the disk and into the firewall mount holes of the engine.

**3**

Add the top bracket as shown. You may wish to add some fuel hose before you add the engine mount boot to help secure this part in place.

**4**

Add the engine mount boot followed by some more fuel hose(if desired) then the bottom bracket.



5

Slide the assembly over the boom with the wires to the back and locate the engine mount dimple into the boom locating hole and take up the slack in the nuts. Make sure the engine assembly is vertical in relation to the crafts horizontal plane.



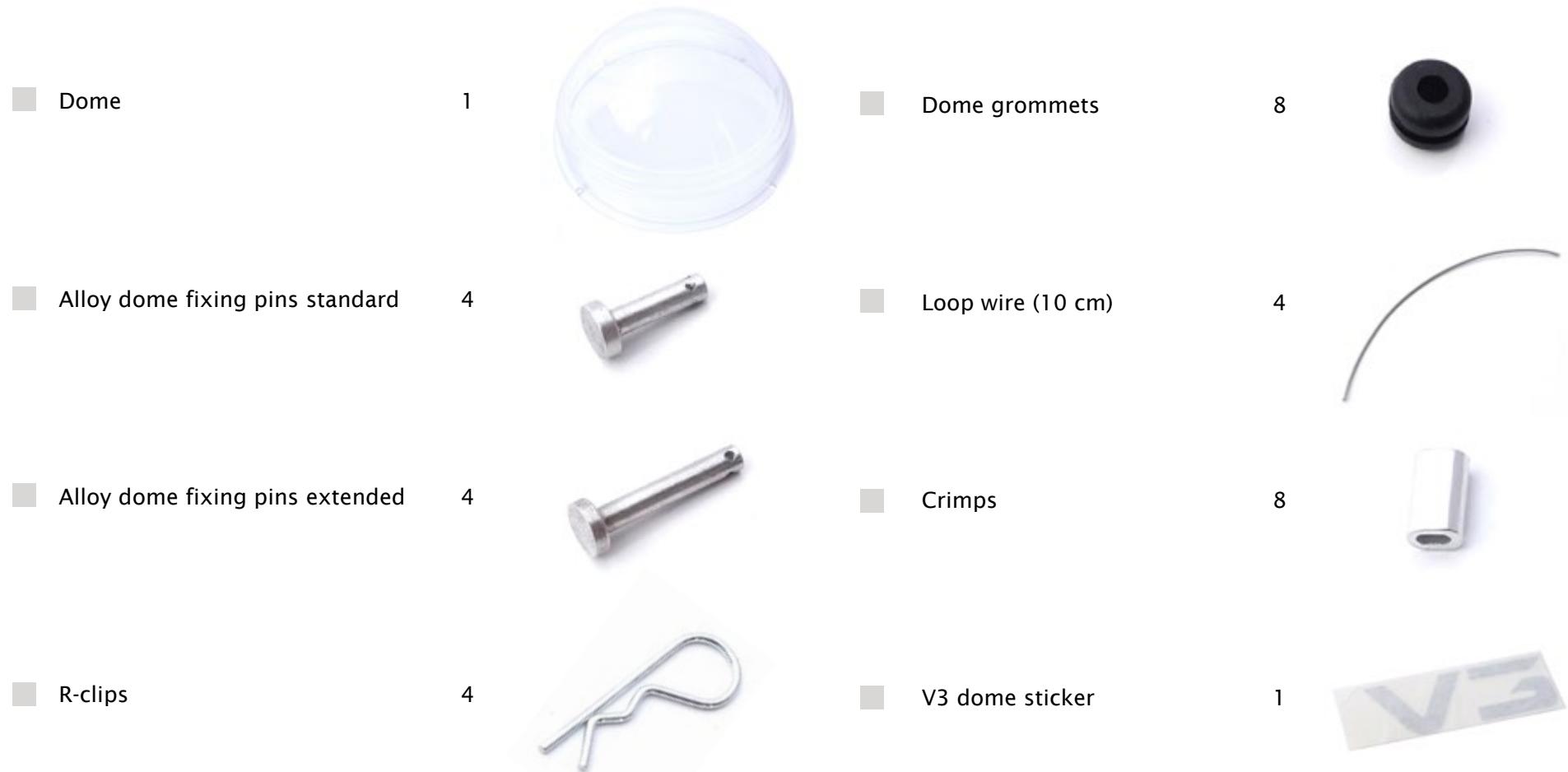
There is some play in the boom... it can be twisted slightly to get the engine mount vertical.

Heat shrink the ends of the wires to protect them from abrasion and feed through the booms.

Then tighten the inner boom mounting assembly at the centre plate section and then tighten the engine mounts evenly.

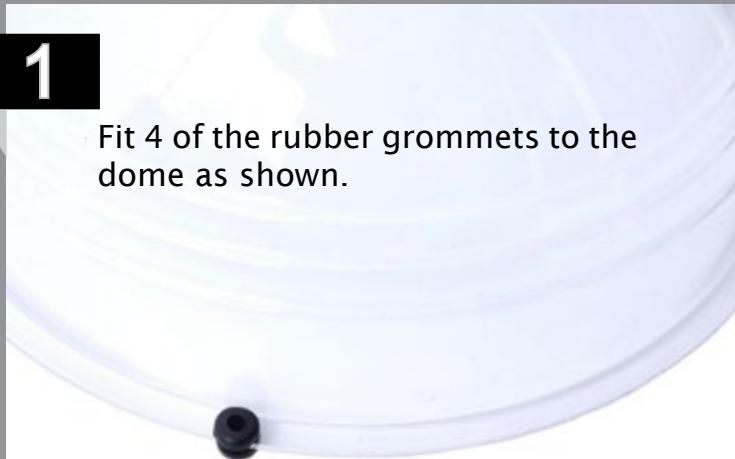
The top of the engine mount bolt is not accessible - use long nose pliers to hold the bolt while you tighten the nut.

PART 5: DOME COVER ASSEMBLY



1

Fit 4 of the rubber grommets to the dome as shown.

**2**

Slot 4 of the desired dome fixing pins through the grommets. There are two holes milled into the pins to adjust tension.

Standard dome pin setup

OR

Extended dome pin setup



x4



x4

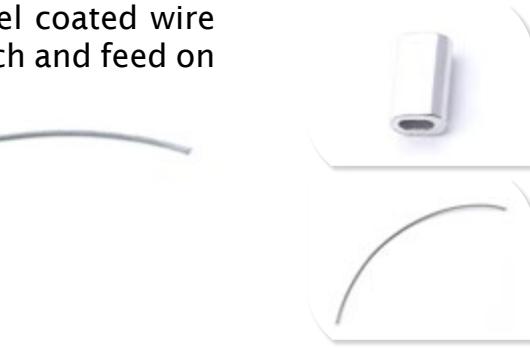
3

Cut the stainless steel coated wire to around 10cm's each and feed on one of the crimps.

**4**

Fit the wire through the lower center plate hole looping it back on itself pushing the end through the crimp.

Pull the crimp tight making the loop smaller and use some pliers to squash it.



Repeat this process on the other end of the wire and push on a R-clip.



5

Repeat the last couple of steps so you have all 4 dome fixings in place. You can now place the dome on your assembly, apply the sticker and locate the R-clip into the dome pin hole.



TIPS, TRICKS & RECOMMENDATIONS



PART 1: REVERSING THE INNER BOOM BRACKET SCREWS

As we hope for nothing to go wrong with your craft sometimes accidents can happen. A good tip for easy replacement of a boom bracket or boom is to reverse the

inner boom bracket screws so they can be removed without disrupting your powerboard setup.



PART 2: ATTACHING YOUR BOOM NACELLES

Application: Bonding surfaces should be clean and dry. Once the adhesive is applied, the bonded parts should be held in contact until the part has developed handling strength. This will occur in 4-8 hours at 77 F after which the pressure used during cure may be removed. Since full bond has not yet been attained, load application should be small at this time. It is not necessary to clamp the parts unless movement during curing is likely.



We recommend the use of a good 2K glue, preferably Loctite Hysol 9462

