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BR (Brake System)	**Balance Bar**					BR_A0400
[Assembly Processes]			Make		1 x	BR_A0400_P
Process	Other: Assemble by hand	*Put balance bar through pedal supports*		1 x		
Balance bar	*Bought from Reverchon*		Buy		1 x	BR_04001
Material	Bought Part	*n/a*		1 x		
Master Cylinder support	*Threaded aluminum part*		Make		2 x	BR_04002
Material	Other: Aluminium 2017A	*Material*		1 x		
Process	Other: Programming	*Milling (CNC)*		1 x		
Process	Other: Machining setup, install and remove	*Milling (CNC)*		1 x		
Process	Other: Machining (CNC)	*Milling phase 1*		1 x		
Process	Other: Machining setup, change	*Milling (CNC)*		1 x		
Process	Other: Machining (CNC)	*Milling, phase 2*		1 x		
Process	Other: Machining setup, change	*Milling (CNC)*		1 x		
Process	Other: Machining (CNC)	*Milling phase 3*		1 x		
Process	Other: Metrology	*Milling (CNC)*		1 x		

BR (Brake System)	**Brake Master Cylinder**					BR_A0300
[Assembly Processes]			Make		1 x	BR_A0300_P
Process	Other: Assemble by hand	*Fixing the lower part of master cylinder*		1 x		
Process	Other: Tighten bolts	*Fixing the upper part of master cylinder*		1 x		
Master Cylinder	*Bought from Beringer*		Buy		2 x	BR_03001
Material	Bought Part	*n/a*		1 x		

BR (Brake System)	**Brake System Front**			BR_A0100
[Assembly Processes]		Make	1 x	P_BR_A0100
Material	Safety wire	*Safety wire for calipers*	4 x	
Material	Other: Brake pad	*Brake pad, iron or steel rotor*	4 x	
Material	Other: Seal, O-ring, copper	*Between caliper, master cylinder, hose*	4 x	
Material	Fluid	*Brake fluid*	1 x	
Process	Other: Assemble by hand	*Assemble brake rotor and shrink disc*	1 x	
Process	Fastener install (every)	*Insert button, retaining ring and washer*	1 x	
Process	Drilled hole	*On bolts head for safety wire*	1 x	
Process	Other: Assemble by hand	*Line up brake pad*	1 x	
Process	Other: Assemble by hand	*Put caliper in place with bolts, x2*	1 x	
Process	Other: Tighten bolts	*For brake caliper and upright, x4*	1 x	
Process	Safety Wire, Install	*Caliper bolts locking device*	1 x	
Process	Other: Assemble by hand	*Positioning the tank on the mount, x1*	1 x	
Process	Other: Tighten bolts	*Fixing the reservoir on the mount, x1*	1 x	
Process	Other: Assemble by hand	*Positioning tee on tee mount, x1*	1 x	
Process	Other: Tighten bolts	*Fixing tee to tee mount, x1*	1 x	
Process	Other: Assemble by hand	*Fitting on master cylinder, x1*	1 x	
Process	Other: Tighten bolts	*Fixing fitting on master cylinder, x1*	1 x	
Process	Other: Assemble by hand	*Put hose between MC and reservoir, x1*	1 x	
Process	Install Tie Wrap (Zip Tie, Cable Clamp)	*Install clamp on the hose, x2*	1 x	
Process	Other: Assemble by hand	*Install hose between MC and tee, x1*	1 x	
Process	Other: Tighten bolts	*Tighten the fittings, x1*	1 x	
Process	Other: Assemble by hand	*Install hose between tee and caliper, x2*	1 x	
Process	Fastener install (every)	*Tighten the fittings, x4*	1 x	
Process	Install Tie Wrap (Zip Tie, Cable Clamp)	*Install zip tie on frame and A-arms*	1 x	
Process	Other: Assemble by hand	*Install pressure sensor adapter on tee*	1 x	
Process	Other: Tighten bolts	*Pressure sensor adapter on the tee, x1*	1 x	
Process	Other: Sealing verification	*Verification of absence of air, leakage*	1 x	
Fastener	Other: Adapter, H.P., Female Flare Tee, Brass	*Brake lines-splitter tee*	1 x	
Fastener	Bolt	*grade 8.8, Fixing fluid reservoir*	1 x	
Fastener	Nut	*grade 8.8, Fixing fluid reservoir*	2 x	
Fastener	Bolt	*grade 8.8, Fixing tee to tee mount*	1 x	
Fastener	Washer	*Fixing tee to tee mount*	2 x	
Fastener	Other: Nut, grade 8.8	*grade 8.8, Fixing tee to tee mount*	1 x	
Fastener	Other: Bolt grade 8.8	*grade 8.8, Fixing caliper to upright*	2 x	
Fastener	Other: Washer, steel stainless	*Fixing caliper to upright*	3 x	
Fastener	Hose Clamp	*For the reservoir hose*	2 x	
Fastener	Other: Zip tie	*To clamp hoses on the frame*	10 x	

Front brake rotor	*230 mm cast iron disc*		Buy		2 x	BR_01001
Material	Bought Part	*n/a*		1 x		

Front brake caliper	*Beringer 2P1A, dual piston 32mm bore*		Buy		2 x	BR_01002
Material	Bought Part	*n/a*		1 x		

Front brake reservoir	*tank to store brake fluid*		Buy		1 x	BR_01003
Material	Bought Part	*n/a*		1 x		

Rotor button	*to assemble brake rotor and shrink disc*		Buy		12 x	BR_01004
Material	Bought Part	*n/a*		1 x		
Fastener	Retaining Ring	*To secure brake button on rotor*		1 x		
Fastener	Washer	*Between brake button and rotor*		2 x		

Adapter	*Adapter for pressure sensors*		Make		1 x	BR_01005
Material	Steel	*30NCD8 steel*		1 x		
Process	Other: Programming	*Turning + milling*		1 x		
Process	Other: Machining setup, install and remove	*Turning*		1 x		
Process	Other: Machining (CNC)	*Turning, phase 1*		1 x		
Process	Other: Machining setup, change	*Turning*		1 x		
Process	Other: Machining (CNC)	*Turning, phase 2 + milling*		1 x		
Process	Other: Metrology	*Verification of the part*		1 x		

Front brake circuit	*Hoses stainless lines with fittings*		Make		1 x	BR_01006
Material	Other: Hose, Stainless Steel Braided Outer, H.P	*High pressure, brake lines*		1 x		
Material	Other: Hose, Stainless Steel Braided Outer, L.P	*Low pressure, for brake fluid tank*		1 x		
Process	Other: Cut metallic hosses (grinder)	*Btw master cylinder and tee, 1x*		1 x		
Process	Other: Cut metallic hosses (grinder)	*Btw master tee and caliper, 2x*		1 x		
Process	Other: Cut metallic hosses (grinder)	*Btw master cylinder and reservoir, 1x*		1 x		
Process	Other: Assemble (fittings on hoses)	*Assemble the fittings, 7x*		1 x		
Fastener	Other: Fitting, H.P., straight, Steel	*Between hose and master cylinder*		1 x		
Fastener	Other: Fitting, H.P., straight, Steel	*To fix hose to tee, caliper and MC*		6 x		

BR (Brake System)	**Brake System Rear**					BR_A0200
[Assembly Processes]			Make		1 x	P_BR_A0200
Material	Safety wire	*Safety wire for caliper*		4 x		
Material	Other: Brake pad	*Brake pad, iron or steel rotor*		4 x		
Material	Other: Seal, O-ring, copper	*Between caliper, master cylinder, hose*		4 x		
Material	Fluid	*Brake fluid*		1 x		
Process	Fastener install (every)	*Insert button and washer*		1 x		
Process	Drilled hole	*On bolts head for safety wire*		1 x		
Process	Other: Assemble by hand	*Line up brake pad*		1 x		
Process	Other: Assemble by hand	*Put caliper in place with bolts, x2*		1 x		
Process	Other: Tighten bolts	*For brake caliper and upright, x4*		1 x		
Process	Safety Wire, Install	*Caliper bolts locking device, x2*		1 x		
Process	Other: Assemble by hand	*Positioning the tank on the mount, x1*		1 x		
Process	Other: Tighten bolts	*Fixing the reservoir on the mount, x1*		1 x		
Process	Other: Assemble by hand	*Positioning tee on tee mount, x1*		1 x		
Process	Other: Tighten bolts	*Fixing tee to tee mount, x1*		1 x		
Process	Other: Assemble by hand	*Fitting on master cylinder, x1*		1 x		
Process	Other: Tighten bolts	*Fixing fitting on master cylinder, x1*		1 x		
Process	Other: Assemble by hand	*Put hose between MC and reservoir, x1*		1 x		
Process	Install Tie Wrap (Zip Tie, Cable Clamp)	*Install clamp on the hose, x2*		1 x		
Process	Other: Assemble by hand	*Install hose between MC and tee, x1*		1 x		
Process	Other: Tighten bolts	*Tighten the fittings, x1*		1 x		
Process	Other: Assemble by hand	*Install hose between tee and caliper, x2*		1 x		
Process	Other: Tighten bolts	*Tighten the fittings, x4*		1 x		
Process	Install Tie Wrap (Zip Tie, Cable Clamp)	*Install zip tie on frame and A-arms*		1 x		
Process	Other: Assemble by hand	*Install pressure sensor adapter on tee*		1 x		
Process	Other: Tighten bolts	*Pressure sensor adapter on the tee, x1*		1 x		
Process	Other: Sealing verification	*Verification of absence of air, leakage*		1 x		
Fastener	Other: Adapter, H.P., Female Flare Tee, Brass	*Brake lines-splitter tee*		1 x		
Fastener	Bolt	*Banjo bolt, to fix hose to left caliper*		1 x		
Fastener	Other: Nut, grade 8.8	*To fix brake fluid tank*		1 x		
Fastener	Other: Zip tie	*Fixing tee to tee mount*		1 x		
Fastener	Other: Bolt grade 8.8	*To fix caliper to upright*		4 x		
Fastener	Other: Washer, steel stainless	*To fix caliper to upright*		6 x		
Fastener	Hose Clamp	*For the reservoir hose*		2 x		
Fastener	Other: Zip tie	*To clamp hoses on the frame*		10 x		

Rear brake rotor	*Sold attached with the rear brake bell*		Buy		2 x	BR_02001
Material	Bought Part	*n/a*		1 x		

Rear brake caliper	*Béringer 2D1, dual piston 27mm bore*		Buy		2 x	BR_02002
Material	Bought Part	*n/a*		1 x		

Rear brake reservoir	*tank to store brake fluid*		Buy		1 x	BR_02003
Material	Bought Part	*n/a*		1 x		

Rear brake circuit	*Hoses stainless lines with fittings*		Make		1 x	BR_02005
Material	Other: Hose, Stainless Steel Braided Outer, H.P	*High pressure, brake lines*		3 x		
Material	Other: Hose, Stainless Steel Braided Outer, L.P	*Low pressure, for brake fluid tank*		1 x		
Process	Other: Cut metallic hosses (grinder)	*Btw master cylinder and tee, 1x*		1 x		
Process	Other: Cut metallic hosses (grinder)	*Btw master tee and caliper, 2x*		1 x		
Process	Other: Cut metallic hosses (grinder)	*Btw master cylinder and reservoir, 1x*		1 x		
Process	Other: Assemble (fittings on hoses)	*Assemble the fittings, 7x*		1 x		
Fastener	Other: Banjo fitting, 45°, Steel	*To fix hose to the left caliper*		1 x		
Fastener	Other: Fitting, H.P., straight, Steel	*To fix hose to tee, caliper and MC*		5 x		
Fastener	Other: Fitting, H.P., straight, Steel	*Between hose and master cylinder*		1 x		

Adapter	*Adapter for pressure sensors*		Make		1 x	BR_02004
Material	Steel	*30NCD8 steel*		1 x		
Process	Other: Programming	*Turning + milling*		1 x		
Process	Other: Machining setup, install and remove	*Turning*		1 x		
Process	Other: Machining (CNC)	*Turning, phase 1*		1 x		
Process	Other: Machining setup, change	*Turning*		1 x		
Process	Other: Machining (CNC)	*Turning + milling*		1 x		
Process	Other: Metrology	*Verification of the part*		1 x		

EL (Electrical)	**Control Unit**			EL_A0700
Rear box shifter	*protect plastic case*	Buy	1 x	EL_07001
Rear board shifter	*control the servo motor*	Make	1 x	EL_07002
Servo motor cables	*set of cable for the servo motor*	Buy	1 x	EL_07003
Servo motor	*controled by high power motor*	Buy	1 x	EL_07004
servo motor support 1	*support the servo motor assembly 1*	Make	1 x	EL_07005
servo motor support 2	*support the servo motor assembly 2*	Make	1 x	EL_07006
Paddle	*placed on the steering wheel*	Buy	1 x	EL_07007

EL (Electrical)	**Dash Panel**			EL_A0100
Dashboard plate	*inside the front hoop*	Make	1 x	EL_01001
LED Bar	*RPM display*	Buy	1 x	EL_01002
2 way switch	*for secondary functions*	Buy	4 x	EL_01003
3 way switch	*contact switch*	Buy	1 x	EL_01004
push button red	*with a red light circle*	Buy	1 x	EL_01005
push button blue	*with a blue light circle*	Buy	2 x	EL_01006
push button	*without any light*	Buy	2 x	EL_01007
1 digit I2C display board	*display engaged gear*	Make	1 x	EL_01008
3 digit I2C dislpay board	*display water temp. Or Batt. Voltage*	Make	1 x	EL_01009
front board	*control the Dashboard and sensors*	Make	1 x	EL_01010
front board box	*protecting plastic case*	Buy	1 x	EL_01011

EL (Electrical)	**Fuses**			EL_A0500
Rear Fuse Box	*on the rear left hand side*	Buy	1 x	EL_05001
Brake light Fuse 3A	*in the Fuse box*	Buy	1 x	EL_05002
Fuse 10A	*in the Fuse box, Fan, Fr. har.*	Buy	2 x	EL_05003
Lambda sensor Fuse 5A	*in the Fuse box*	Buy	1 x	EL_05004
Pump Fuse 20A	*in the Fuse box*	Buy	1 x	EL_05005
Fuse 15A	*Servo motor ,Inject., in the Fuse Box*	Buy	2 x	EL_05006
starter relay	*on the right hand side of the motor*	Buy	1 x	EL_05007
relays 35A	*in the fuse box, fan, pump, DTA, rear*	Buy	4 x	EL_05008

EL (Electrical)	**Kill Switch**			EL_A0600
Main hoop kill Switch	*on both sides of the main hoop*	Buy	2 x	EL_06001
24mm kill Switch	*Dashboard and BOTS*	Buy	2 x	EL_06002
BSPD	*right hand side of the front hoop*	Make	1 x	EL_06003
Crash sensor	*right hand side of the front hoop*	Buy	1 x	EL_06004
BSPD Box	*protecting metal case*	Buy	1 x	EL_06005

EL (Electrical)	**LV-Battery**			EL_A0400
Battery support	*on the rear rigth side*	Make	1 x	EL_04001
LV-Battery	*12V Battery*	Buy	1 x	EL_04002
Battery connector	*Battery connector*	Make	2 x	EL_04003
Battery Fuse 250A	*General fuse*	Buy	1 x	EL_04004
Master switch	*on the right hand side of the main hoop*	Buy	1 x	EL_04005
Master switch pannel	*on the right hand side of the main hoop*	Make	1 x	EL_04006
Booster connector	*on the right hand side of the main hoop*	Buy	1 x	EL_04007
3 phase rectifier	*mounted on the fire wall*	Buy	1 x	EL_04008

EL (Electrical)	**Sensors**			EL_A0200
data logger	*MK3*	Buy	1 x	EL_02001
data log connector set	*connectors for the MK3*	Buy	1 x	EL_02002
wheel speed sensor	*on each four wheels, Hall effect*	Buy	4 x	EL_02003
suspension travel sensor	*on each four suspensions*	Buy	4 x	EL_02004
steering wheel pos sensor	*in the steering rack*	Buy	1 x	EL_02005
pressure sensors	*pressure of brake sys., fuel, oil*	Buy	4 x	EL_02006
Lambda sensor	*placed on the exhaust*	Buy	1 x	EL_02007
Camshaft position sensor	*present on the purchased engine*	Buy	1 x	EL_02008
throttle position	*linear sensor on the throttle body*	Buy	1 x	EL_02009
Air temp,pressure sensor	*to the ECU*	Buy	1 x	EL_02010
Crankshaft pos sensor	*present on the purchased engine*	Buy	1 x	EL_02011
Water temp sensor	*to the ECU*	Buy	1 x	EL_02012
GPS Antenna	*placed on top of the main hoop*	Buy	1 x	EL_02013
connectors for the sensor	*to the harness (fr./re.)*	Buy	14 x	EL_02014
lambda connector	*standard automobile connector*	Buy	1 x	EL_02015

camshaft sensors connecto	*standard automobile connector*	Buy	1 x	EL_02016
Crankshaft sensor connect	*standard automobile connector*	Buy	1 x	EL_02017
ECT connector	*standard automobile connector*	Buy	1 x	EL_02018
TPS connector	*standard automobile connector*	Buy	1 x	EL_02019
TMAP connector	*standard automobile connector*	Buy	1 x	EL_02020

EL (Electrical)	**Wire Harness/Connectors**			EL_A0300
front harness	*link rear, dashboard, sensors*	Make	1 x	EL_03001
rear harness	*link fr. , servo motor, sensors, bat.*	Make	1 x	EL_03002
connector front-rear	*8STA71828S&P, sensors and Power*	Buy	2 x	EL_03003
connector BSPD	*8STA70835S&P, Power and DATA*	Buy	1 x	EL_03004
connector rear board	*8STA01497P&S, Power and DATA*	Buy	2 x	EL_03005
connector front board	*8STA01002S&P, 5V Power*	Buy	3 x	EL_03006
Brake light	*rear red light*	Buy	1 x	EL_03007
ECU	*DTAFast S80 Pro*	Buy	1 x	EL_03008
ECU Power connector	*power connector for the ECU*	Buy	1 x	EL_03009
DB-9 connector	*Access to the DTA*	Buy	1 x	EL_03010
ECU Data connector	*DATA Connector for the ECU*	Buy	1 x	EL_03011
3 phase rectifier connect	*2 pin connector*	Buy	2 x	EL_03012
injectors connector	*2 pin connector*	Buy	4 x	EL_03013
Fan connector	*For the fan - cooling system*	Buy	1 x	EL_03014
Brake light connector	*For the brake light - rear*	Buy	1 x	EL_03015

EN (Engine & Drivetrain)	**Cooling System**				655,08€	EN_A0600
[Assembly Processes]			Make		1 x 48,89€ = 48,89€	EN_A0600_P
Material	Fluid	*Demineralized water as coolant*		2 x 0,33€ = 0,66€	*2L in cooling system when full*	
Process	Other: Welding (Aluminium)	*Radiator tabs on radiator*		1 x 5,22€ = 5,22€	*3 tabs of 15mm long weld, aluminum*	
Process	Other: Assemble by hand	*Radiator to frame*		1 x 0,20€ = 0,20€	*2 bolts to put in position*	
Process	Other: Tighten bolts	*Tighten radiator bolts*		1 x 0,40€ = 0,40€	*2 bolts to tighten*	
Process	Other: Assemble by hand	*Fixing bar on radiator*		1 x 0,10€ = 0,10€	*1 bolt*	
Process	Other: Tighten bolts	*Fixing bar to radiator*		1 x 0,20€ = 0,20€	*1 bolt*	
Process	Other: Assemble by hand	*Fixing bar to frame*		1 x 0,10€ = 0,10€	*1 bolt*	
Process	Other: Tighten bolts	*Fixing bar to frame*		1 x 0,20€ = 0,20€	*1 bolt*	
Process	Other: Assemble by hand	*Fan to radiator*		1 x 0,40€ = 0,40€	*4 tie straps to install*	
Process	Install Tie Wrap (Zip Tie, Cable Clamp)	*Tie fan to radiator*		1 x 0,40€ = 0,40€	*4 (tie straps) * 0.1*	
Process	Other: Welding (Aluminium)	*Expansion tank filler neck on core*		1 x 8,69€ = 8,69€	*75mm long aluminum weld*	
Process	Other: Sealing verification	*Expansion tank welds sealing check*		1 x 3,46€ = 3,46€	*Aluminum welds check-up*	
Process	Other: Welding (Aluminium)	*Expansion tank tab welding*		1 x 0,70€ = 0,70€	*6mm long weld*	
Process	Other: Assemble by hand	*Expansion tank on frame*		1 x 0,10€ = 0,10€	*1 bolt*	
Process	Other: Tighten bolts	*Expansion tank on frame*		1 x 0,20€ = 0,20€	*1 bolt*	
Process	Other: Assemble by hand	*Main coolant line assembly*		1 x 0,80€ = 0,80€	*4 clamps to install*	
Process	Other: Tighten bolts	*Main cooling line setup*		1 x 0,80€ = 0,80€	*4 clamps to tighten*	
Process	Other: Assemble by hand	*Secondary coolant line setup*		1 x 0,40€ = 0,40€	*2 clamps to install*	
Process	Other: Tighten bolts	*Secondary coolant line setup*		1 x 0,40€ = 0,40€	*2 clamps to tighten*	
Process	Other: Fill with liquids, grease ...	*Cooling system filling*		1 x 2,04€ = 2,04€	*2L of demineralized water*	
Process	Other: Assemble by hand	*Expansion tank cap setup*		1 x 0,10€ = 0,10€	*Manual operation, no tools*	
Process	Other: Sealing verification	*Cooling system sealing verification*		1 x 6,12€ = 6,12€	*Check all junctions for leaks*	
Fastener	Other: Bolt grade 8.8	*Maintains radiator, bar and exp. tank*		5 x 0,02€ = 0,10€	*5 8.8 M6 bolts*	
Fastener	Other: Fitting, Weld-in, Male, Aluminum	*Exp. tank exit*		1 x 4,06€ = 4,06€	*Exp. tank to calorstat*	
Fastener	Hose Clamp	*4 25-32mm for main*		4 x 0,63€ = 2,52€	*4 25-32mm for main*	
Fastener	Hose Clamp	*2 12-18 for secondary*		2 x 0,56€ = 1,12€	*2 12-18 for secondary*	
Fastener	Other: Tie straps, blower	*Attachs between radiator and fan*		4 x 2,35€ = 9,40€	*Attachs between radiator and fan*	
Radiator	*Aluminum radiator*		Buy		1 x 380,00€ = 380,00€	EN_06001
Material	Bought Part	*n/a*		1 x 380,00€ = 380,00€	*Aluminum radiator*	
Fan	*SPAL Fan 1360M3/H*		Buy		1 x 81,75€ = 81,75€	EN_06002
Material	Bought Part	*n/a*		1 x 81,75€ = 81,75€	*Radiator Fan*	
Expansion tank base	*Part of expansion tank wielded to filler*		Make		1 x 12,30€ = 12,30€	EN_06003
Material	Other: Tubing, Aluminum	*Used for expansion tank core*		1 x 0,47€ = 0,47€	*D 24mm H 60mm e 1mm*	
Material	Other: Aluminium 2017A	*Tank bottom*		1 x 0,04€ = 0,04€	*24*24*1,5 aluminum sheet material*	

Process	Other: Saw or tubing cut	*Cut the expansion tank core*	1 x 2,04€ = 2,04€	*Tube cut at correct length*	
Process	Programming	*Expansion tank base laser cut*	1 x 0,61€ = 0,61€	*Cut D24mm circle in plate*	
Process	Other: Laser cut setup, install and remove	*Expansion tank bottom*	1 x 0,01€ = 0,01€	*24mm*24mm plate*	
Process	Laser Cut	*Expansion tank bottom*	1 x 0,03€ = 0,03€	*87mm laser cut length*	
Process	Other: Metrology	*Expansion tank bottom*	1 x 0,41€ = 0,41€	*24mm diameter circle*	
Process	Other: Welding (Aluminium)	*Weld cut plate to tube*	1 x 8,69€ = 8,69€	*75mm aluminum welding*	

Expansion tank filler nec	*Receives the tank cap*	Buy	1 x 14,93€ = 14,93€	EN_06004
Material	Bought Part	*n/a*	1 x 14,93€ = 14,93€	*Receives the tank cap*

Expansion tank cap	*Expansion tank cap*	Buy	1 x 24,68€ = 24,68€	EN_06005
Material	Bought Part	*n/a*	1 x 24,68€ = 24,68€	*Aluminum cap*

Fixing tube	*Maintains the radiator to frame*	Make	1 x 5,94€ = 5,94€	EN_06006
Material	Other: Tubing, Aluminum	*Keeps the radiator in place*	1 x 1,44€ = 1,44€	*D12*11mm*L375mm aluminum tube*
Process	Other: Saw or tubing cut	*Cut the raw tube at the correct length*	1 x 2,04€ = 2,04€	*Cut tube at fitting length*
Process	Other: Press operation	*Flatten ends of tube for bolts locations*	1 x 0,82€ = 0,82€	*Flatten both ends of tube : 2 * 0.41*
Process	Drilled hole	*Holes for bolts fitting*	1 x 1,64€ = 1,64€	*2 Manually drilled holes : 2 * 0.82*

Radiator tab	*Tabs wielded to the radiator*	Make	1 x 1,14€ = 1,14€	EN_06007
Material	Other: Aluminium 2017A	*Tabs welded on the radiator*	1 x 0,09€ = 0,09€	*20*45*2mm aluminum plate*
Process	Programming	*Laser cut program*	1 x 0,61€ = 0,61€	*Laser cut programming cost*
Process	Other: Laser cut setup, install and remove	*Laser cut setup*	1 x 0,01€ = 0,01€	*20*45*2mm plate setup*
Process	Laser Cut	*Cut three tabs in aluminum*	1 x 0,02€ = 0,02€	*3 tabs of 85mm laser cut length each*
Process	Other: Metrology	*controls*	1 x 0,41€ = 0,41€	*controls*

Expansion tank tab	*Wielded to the tank*	Make	1 x 1,05€ = 1,05€	EN_06008
Material	Other: Aluminium 2017A	*Expansion tank tab*	1 x 0,01€ = 0,01€	*1 plate of 15*20*1.5mm*
Process	Other: Programming	*programming laser cut*	1 x 0,61€ = 0,61€	*programming cost*
Process	Other: Laser cut setup, install and remove	*Laser cut setup*	1 x 0,01€ = 0,01€	*15*20mm plate setup*
Process	Laser Cut	*Laser cut tank tab*	1 x 0,01€ = 0,01€	*57mm laser cut on 1.5mm plate*
Process	Other: Metrology	*controls*	1 x 0,41€ = 0,41€	*controls*

Main coolant line	*Engine - radiator links*	Make	1 x 73,36€ = 73,36€	EN_06009
Material	Other: Hose, Stainless	*Main part of main coolant line*	1 x 42,00€ = 42,00€	*2m long D25mm stainless steel hose*
Material	Other: Hose, Rubber	*Joints for stainless hoses ends*	1 x 15,00€ = 15,00€	*1m long rubber hose, D25mm*
Process	Other: Saw or tubing cut	*Cut hoses at correct length*	1 x 12,24€ = 12,24€	*6 cuts to do*
Process	Other: Assemble by hand	*Assemble hoses and junctions*	1 x 0,80€ = 0,80€	*4 hoses clamps to install*
Process	Other: Tighten bolts	*Tighten hoses clamps*	1 x 0,80€ = 0,80€	*4 hoses clamps to tighten, screwdriver*

Fastener	Hose Clamp		*Hose clamps stainless/rubber hoses*	4 x 0,63€ = 2,52€	*25-32 hose clamps*	
Secondary coolant line		*Engine - expansion tank*		Make	1 x 11,04€ = 11,04€	EN_06010
Material	Other: Hose, Rubber		*One hose D6-12mm*	1 x 9,00€ = 9,00€	*1m raw rubber hose*	
Process	Other: Saw or tubing cut		*Cut hose to right length*	1 x 2,04€ = 2,04€	*Cut hose*	

EN (Engine & Drivetrain)	**Drivetrain Assembly**			4.105,32€	EN_A0700
[Assembly Processes]		Make		1 x 129,46€ = 129,46€	EN_A0700_P
Material	Fluid	*Limited slip differential oil 75W140*	1 x 20,54€ = 20,54€	*1 L*	
Material	Fluid	*Tripod grease*	1 x 5,80€ = 5,80€	*50g*	
Material	Fluid	*Chain oil*	1 x 1,70€ = 1,70€	*10 times*	
Material	Fluid	*Threadlock*	1 x 0,40€ = 0,40€	*2 times*	
Process	Other: Assemble by hand	*Front sprocket with engine*	1 x 0,10€ = 0,10€	*1 (nbr of bolts) * 0,1*	
Process	Other: Tighten bolts	*Tighten bolts Front sprocket with engine*	1 x 0,20€ = 0,20€	*1 (nbr of bolts) * 0.2*	
Process	Other: Press operation	*Left roller bearing mounting*	1 x 2,04€ = 2,04€	*5 min by an operator*	
Process	Other: Press operation	*Right roller bearing mounting*	1 x 2,04€ = 2,04€	*5 min by an operator*	
Process	Other: Press operation	*1st needle roller bearing, differential*	1 x 2,04€ = 2,04€	*5 min by an operator*	
Process	Other: Press operation	*2nd needle roller bearing, differential*	1 x 2,04€ = 2,04€	*5 min by an operator*	
Process	Other: Assemble by hand	*Eccentrics and their carriers*	1 x 0,40€ = 0,40€	*4 (nbr of bolts) * 0,1*	
Process	Other: Tighten bolts	*Eccentrics and their carriers*	1 x 0,80€ = 0,80€	*4 (nbr of bolts) * 0.2*	
Process	Other: Assemble by hand	*Eccentrics carriers and differential*	1 x 0,41€ = 0,41€	*1 min by an operator*	
Process	Other: Tighten bolts	*Tighten bolts rear sprocket and adaptor*	1 x 1,20€ = 1,20€	*6 (nbr of bolts) * 0.2*	
Process	Other: Assemble by hand	*Sprocket adaptor and differential*	1 x 2,04€ = 2,04€	*5 min by an operator*	
Process	Fastener install (every)	*Retaining ring on differential*	1 x 0,10€ = 0,10€	*1 (nbr of fasteners) * 0.1*	
Process	Preparing	*Threadlock application*	1 x 0,40€ = 0,40€	*2 (nbr of application)*0.2*	
Process	Other: Tighten bolts	*Inner tripods housings in differential*	1 x 0,40€ = 0,40€	*2 (nbr of bolts) * 0.2*	
Process	Other: Tighten bolts	*Setting on the frame*	1 x 0,80€ = 0,80€	*4 (nbr of bolts) * 0.2*	
Process	Other: Assemble by hand	*Differential assembly with frame*	1 x 0,40€ = 0,40€	*4 (nbr of bolts) * 0,1*	
Process	Other: Fill with liquids, grease ...	*Differentail oil*	1 x 4,08€ = 4,08€	*10 min by an operator*	
Process	Other: Tighten bolts	*Outer tripod housing with hub*	1 x 0,40€ = 0,40€	*2 (nbr of bolts) * 0.2*	
Process	Programming	*Adjustement of driveshaft left*	1 x 0,31€ = 0,31€	*By a technician*	
Process	Machining setup	*Setup, install and remove*	1 x 15,94€ = 15,94€	*By operator*	
Process	Machining	*CNC*	1 x 2,64€ = 2,64€	*By operator 10600 mm3*	
Process	Other: Metrology	*Metrology*	1 x 0,25€ = 0,25€	*By a technician*	
Process	Programming	*Adjustment of driveshaft right*	1 x 0,53€ = 0,53€	*By a technician*	
Process	Machining setup	*Setup, install and remove*	1 x 15,94€ = 15,94€	*By operator*	
Process	Machining	*CNC*	1 x 4,37€ = 4,37€	*By operator 17600 cm3*	
Process	Other: Metrology	*Metrology*	1 x 0,42€ = 0,42€	*By a technician*	
Process	Other: Assemble by hand	*Tripods on driveshafts*	1 x 0,41€ = 0,41€	*1 min by an operator*	
Process	Fastener install (every)	*Retaining rings on driveshafts*	1 x 0,80€ = 0,80€	*8 (nbr of fastener) * 0.1*	
Process	Other: Assemble by hand	*Axle boots on driveshafts*	1 x 2,04€ = 2,04€	*5 min by an operator*	
Process	Other: Fill with liquids, grease ...	*Tripod grease*	1 x 1,64€ = 1,64€	*/*	
Process	Fastener install (every)	*Boot clamps to lock axle boots*	1 x 0,80€ = 0,80€	*4 (nbr of clamp) * 0.2*	
Process	Preparing	*Chain length adjustment*	1 x 4,08€ = 4,08€	*10 min by an operator*	
Process	Assemble	*Chain lenght installation*	1 x 4,08€ = 4,08€	*10 min by an operator*	
Process	Other: Tighten bolts	*Tighten bolts, chainshield with frame*	1 x 0,40€ = 0,40€	*2 (nbr of bolts) * 0.2*	

Process	Aerosol Apply	*Chain oil*	1 x 0,80€ = 0,80€	/
Fastener	Other: Bolt grade 8.8	*M6, assembly of chainshield*	2 x 0,02€ = 0,04€	/
Fastener	Other: Nut, grade 8.8	*M6, assembly of chainshield*	2 x 0,02€ = 0,04€	/
Fastener	Other: Washer, steel stainless	*M6, assembly of chainshield*	4 x 0,04€ = 0,16€	/
Fastener	Other: Bolt grade 8.8	*M8, assembly of excentrics carriers*	8 x 0,04€ = 0,32€	/
Fastener	Other: Nut, grade 8.8	*M8, assembly of excentrics carriers*	6 x 0,03€ = 0,18€	/
Fastener	Other: Washer, steel stainless	*M8, assembly of excentrics carriers*	14 x 0,05€ = 0,70€	/
Fastener	Other: Bolt grade 8.8	*M10, assembly of sprockets*	7 x 0,10€ = 0,70€	/
Fastener	Other: Nut, grade 8.8	*M10, assembly of sprockets*	6 x 0,06€ = 0,36€	/
Fastener	Other: Washer, steel stainless	*M10, assembly of sprockets*	13 x 0,07€ = 0,91€	/
Fastener	Other: Bolt grade 12.9	*M10, assembly of inner tripod housing*	2 x 0,14€ = 0,28€	/
Fastener	Retaining Ring	*External, diam 47 mm, for EN_07012*	1 x 0,15€ = 0,15€	/
Fastener	Retaining Ring	*External, diam 20 mm, for tripods*	8 x 0,74€ = 5,92€	/
Fastener	Other: Boot clamp, ligarex strap with buckle	*Assembly of axle boot, medium (33 cm)*	4 x 0,90€ = 3,60€	/
Fastener	Other: Boot clamp, ligarex strap with buckle	*Assembly of axle boot, large (72 cm)*	4 x 0,90€ = 3,60€	/
Fastener	Other: Quick link chain	*To close the chain*	2 x 4,36€ = 8,72€	/

Differential	*Adjustable Limited Slip*		Buy	1 x 1.541,70€ = 1.541,70€	EN_07001
Material	Bought Part	*n/a*	1 x 1.541,70€ = 1.541,70€	*provided by Drexler*	

Eccentric left	*Carry the differential*		Make	1 x 104,81€ = 104,81€	EN_07002
Material	Plastic	*Delrin*	1 x 12,99€ = 12,99€	*185mm*185mm*23mm*	
Process	Programming	*Milling (CNC)*	1 x 17,30€ = 17,30€	*By a technician, 582 000 mm3*	
Process	Other: Machining setup, install and remove	*Milling (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 1*	1 x 14,00€ = 14,00€	*By an operator 282 000 mm3*	
Process	Other: Machining setup, change	*Milling (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 2*	1 x 14,90€ = 14,90€	*By an operator 300 000 mm3*	
Process	Other: Metrology	*Milling (CNC)*	1 x 13,74€ = 13,74€	*By a technician, 582 000 mm3*	

Eccentric right	*Carry the differential*		Make	1 x 91,69€ = 91,69€	EN_07003
Material	Plastic	*Delrin*	1 x 10,61€ = 10,61€	*175mm*175mm*21mm*	
Process	Programming	*Milling (CNC)*	1 x 14,10€ = 14,10€	*By a technician, 479 000 mm3*	
Process	Other: Machining setup, install and remove	*Milling (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 1*	1 x 12,00€ = 12,00€	*By an operator 241 000 mm3*	
Process	Other: Machining setup, change	*Milling (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 2*	1 x 11,80€ = 11,80€	*By an operator 238 000 mm3*	
Process	Other: Metrology	*Milling (CNC)*	1 x 11,30€ = 11,30€	*By a technician, 479 000 mm3*	

Eccentric carrier left	*Link between drivetrain and frame*		Make		1 x 124,23€ = 124,23€	EN_07004
Material	Other: Aluminium, 7075 T6	*10 mm thickness*		1 x 15,65€ = 15,65€	*367mm*190mm*10mm*	
Process	Programming	*Milling (CNC)*		1 x 14,80€ = 14,80€	*By a technician, 502 000 mm3*	
Process	Other: Machining setup, install and remove	*Milling (CNC)*		1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 1*		1 x 25,00€ = 25,00€	*By an operator 251 000 mm3*	
Process	Other: Machining setup, change	*Milling (CNC)*		1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 2*		1 x 25,00€ = 25,00€	*By an operator 251 000 mm3*	
Process	Other: Metrology	*Milling (CNC)*		1 x 11,90€ = 11,90€	*By a technician, 502 000 mm3*	
Eccentric carrier right	*Link between drivetrain and frame*		Make		1 x 120,71€ = 120,71€	EN_07005
Material	Other: Aluminium, 7075 T6	*10 mm thickness*		1 x 14,83€ = 14,83€	*367mm*180mm*10mm*	
Process	Programming	*Milling (CNC)*		1 x 14,30€ = 14,30€	*By a technician, 484 000 mm3*	
Process	Other: Machining setup, install and remove	*Milling (CNC)*		1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 1*		1 x 24,10€ = 24,10€	*By an operator 242 000 mm3*	
Process	Other: Machining setup, change	*Milling (CNC)*		1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling, phase 2*		1 x 24,10€ = 24,10€	*By an operator 242 000 mm3*	
Process	Other: Metrology	*Milling (CNC)*		1 x 11,50€ = 11,50€	*By a technician, 484 000 mm3*	
Ball bearing left	*Ball bearing*		Buy		1 x 20,00€ = 20,00€	EN_07006
Material	Bought Part	*n/a*		1 x 20,00€ = 20,00€	*provided by SKF*	
Ball bearing right	*Ball bearing*		Buy		1 x 20,00€ = 20,00€	EN_07007
Material	Bought Part	*n/a*		1 x 20,00€ = 20,00€	*provided by SKF*	
Needle roller bearing	*Between drive shaft and differential*		Buy		2 x 16,00€ = 32,00€	EN_07008
Material	Bought Part	*n/a*		1 x 16,00€ = 16,00€	*provided by SKF*	
Chain	*Chain*		Buy		1 x 205,50€ = 205,50€	EN_07009
Material	Bought Part	*n/a*		1 x 205,50€ = 205,50€	*With the 2 sprockets*	
Front sprocket	*Link between chain and output of engine*		Buy		1 x 0,01€ = 0,01€	EN_07010
Material	Bought Part	*n/a*		1 x 0,01€ = 0,01€	*bought in kit with front sprocket, chain*	
Rear sprocket	*Link between chain and EN_07012*		Buy		1 x 0,01€ = 0,01€	EN_07011
Material	Bought Part	*n/a*		1 x 0,01€ = 0,01€	*bought in kit with chain, rear sprocket*	
Rear sprocket adaptator	*Link between rear sprocket and different*		Make		1 x 184,93€ = 184,93€	EN_07012
Material	Aluminum	*7075 T81*		1 x 0,01€ = 0,01€	*Included with differential drexler*	

Process	Programming	*Turning + milling*	1 x 27,77€ = 27,77€	*By a technician, 941 000 mm3*	
Process	Other: Machining setup, install and remove	*Turning (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Turning, phase 1*	1 x 42,64€ = 42,64€	*By an operator Turning 465 000 mm3*	
Process	Other: Machining setup, change	*Turning (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Turning, phase 2*	1 x 29,36€ = 29,36€	*By an operator Turning 324 000 mm3*	
Process	Other: Machining setup, install and remove	*Milling (CNC)*	1 x 15,94€ = 15,94€	*By an operator*	
Process	Other: Machining (CNC)	*Milling*	1 x 15,11€ = 15,11€	*By an operator 152 000 mm3*	
Process	Other: Metrology	*For turning + milling*	1 x 22,22€ = 22,22€	*By a technician, 941 000 mm3*	

Chainshield	*Protection around the chain*		Make	1 x 14,79€ = 14,79€	EN_07013
Material	Steel	*S355*	1 x 4,22€ = 4,22€	*80*905*	
Process	Programming	*Programming laser cut*	1 x 0,89€ = 0,89€	*By a technician*	
Process	Other: Laser cut setup, install and remove	*Laser cut of the part*	1 x 0,17€ = 0,17€	*By an operator 0.017 m2*	
Process	Laser Cut	*Laser cut of the part*	1 x 0,76€ = 0,76€	*2100 mm By an operator*	
Process	Other: Metrology	*For laser cut operation*	1 x 0,59€ = 0,59€	*By a techician*	
Process	Bending	*Bending of the part*	1 x 8,16€ = 8,16€	*4 bending * 2.04*	

Driveshaft left	*Driveshaft*		Buy	1 x 192,80€ = 192,80€	EN_07014
Material	Bought Part	*n/a*	1 x 192,80€ = 192,80€	*Provided by RCV performance*	

Driveshaft right	*Driveshaft*		Buy	1 x 192,80€ = 192,80€	EN_07015
Material	Bought Part	*n/a*	1 x 192,80€ = 192,80€	*Provided by RCV performance*	

Tripod	*Enable small displacement of driveshafts*		Buy	4 x 77,87€ = 311,48€	EN_07016
Material	Bought Part	*n/a*	1 x 77,87€ = 77,87€	*Provided by RCV performance*	

Inner tripod housing	*Link differential and driveshaft*		Buy	2 x 192,80€ = 385,60€	EN_07017
Material	Bought Part	*n/a*	1 x 192,80€ = 192,80€	*Provided by RCV performance*	

Outer tripod housing	*Link between wheel and driveshat*		Buy	2 x 192,80€ = 385,60€	EN_07018
Material	Bought Part	*n/a*	1 x 192,80€ = 192,80€	*Provided by RCV performance*	

Tripod housing nut	*Nylstop, non metric*		Buy	2 x 5,80€ = 11,60€	EN_07019
Material	Bought Part	*For axial preload*	1 x 5,80€ = 5,80€	*Specific, Imperial unit*	

Axle boots	*Over driveshafts and tripod housings*		Buy	4 x 8,90€ = 35,60€	EN_07020
Material	Bought Part	*n/a*	1 x 8,90€ = 8,90€	*Provided by RCV performance*	

EN (Engine & Drivetrain)	**Engine**			3.888,73€	EN_A0100
[Assembly Processes]		Make	1 x 162,05€ = 162,05€		55
Material	Other: Engine Sealant Paste	*For clutch carter and oil pan*	1 x 3,81€ = 3,81€	*(70 + 60) (cm) * 0,025 (€/cm)*	
Process	Other: Untighten bolts	*Remove older pair plate*	1 x 0,82€ = 0,82€	*4 (nbr of bolts) * 0.20*	
Process	Other: Assemble by hand	*Put PAIR plate on the engine*	1 x 0,41€ = 0,41€	*0.102 * 4 (nbr of bolts)*	
Process	Other: Tighten bolts	*Tighten PAIR plate bolt*	1 x 0,82€ = 0,82€	*4 (nbr of bolts) * 0.20*	
Process	Other: Untighten bolts	*Remove clutch carter*	1 x 2,67€ = 2,67€	*13 (nbr of bolts)*0,20*	
Process	Other: Untighten bolts	*Remove clutch*	1 x 1,23€ = 1,23€	*6 (nbr of bolts)*0,20*	
Process	Other: Assemble by hand	*Remove older shifter axis, put new one*	1 x 6,12€ = 6,12€	*15 min of Operator time*	
Process	Fastener install (every)	*Circlip to lock the axis on engine*	1 x 0,21€ = 0,21€	*2 (nbr of retaining ring) * 0.105*	
Process	Other: Tighten bolts	*Permit to lock gear on the engine*	1 x 0,21€ = 0,21€	*1 (nb of bolts)*0.205*	
Process	Other: Assemble by hand	*Instal wet slipper clutch, clutch discs*	1 x 4,08€ = 4,08€	*10 min of operator time*	
Process	Other: Tighten bolts	*Lock the slipper clutch*	1 x 1,00€ = 1,00€	*5 (nbr of bolts)*0,20*	
Process	Other: Assemble by hand	*Clutch engine casing with sealing*	1 x 6,12€ = 6,12€	*15 min of operator time*	
Process	Other: Tighten bolts	*Engine casing screws*	1 x 2,67€ = 2,67€	*13 (nb of bolts)*0,2*	
Process	Other: Untighten bolts	*Remove older oil pressure sensor*	1 x 0,20€ = 0,20€	*1 (nbr of sensor) * 0.2*	
Process	Other: Tighten bolts	*New Adaptator oil pressure*	1 x 0,20€ = 0,20€	*1 (nbr of adaptater) * 0.2*	
Process	Other: Welding (Aluminium)	*Drain outlet to oil sump shell*	1 x 12,24€ = 12,24€	*12,24*	
Process	Other: Welding (Aluminium)	*Oil sump shell to joint plate*	1 x 69,97€ = 69,97€	*583,1*0,12*	
Process	Other: Welding (Aluminium)	*Anti planning plate and oil sump shell*	1 x 10,08€ = 10,08€	*84*0,12*	
Process	Other: Welding (Aluminium)	*Draining outlet, male fitting weld-in*	1 x 1,13€ = 1,13€	*9,42*0,12*	
Process	Fastener install (every)	*Plug to close the drain outlet*	1 x 0,10€ = 0,10€	*1 (nbr of plug) * 0.1*	
Process	Other: Tighten bolts	*Close the drain outlet*	1 x 0,20€ = 0,20€	*1 (nbr of plug) * 0.2*	
Process	Other: Untighten bolts	*Remove the older oil shell*	1 x 2,60€ = 2,60€	*13(nbr of bolts)*0,2*	
Process	Other: Assemble by hand	*Draining, modif. Oil strainer, new pan*	1 x 12,24€ = 12,24€	*30 min of operator time*	
Process	Other: Tighten bolts	*Lock the oil pan on the engine*	1 x 0,20€ = 0,20€	*1*0,20*	
Process	Other: Fill with liquids, grease ...	*Engine oil*	1 x 2,04€ = 2,04€	*5 min of operator time*	
Process	Other: Assemble by hand	*Oil filter*	1 x 2,04€ = 2,04€	*5 min of operator time*	
Process	Other: Untighten bolts	*Remove older thermostat of engine*	1 x 0,40€ = 0,40€	*2*0,20*	
Process	Other: Assemble by hand	*Put new thermostat*	1 x 0,20€ = 0,20€	*2*0,10*	
Process	Other: Tighten bolts	*Lock the thermostat on the engine*	1 x 0,40€ = 0,40€	*2*0,20*	
Process	Other: Assemble by hand (>10kg)	*Put the engine on the frame*	1 x 8,16€ = 8,16€	*10 min for 2 operators*	
Process	Other: Tighten bolts	*Egine mount*	1 x 0,60€ = 0,60€	*3*0,20*	
Fastener	Other: Washer, steel stainless	*Rear engine mount*	4 x 0,09€ = 0,36€	*0.089*	
Fastener	Other: Washer, steel stainless	*Joint plate on the engine*	13 x 0,03€ = 0,39€	*0.029*	
Fastener	Other: Washer, steel stainless	*PAIR Plate on the engine*	4 x 0,03€ = 0,12€	*0.029*	
Fastener	Other: Retaining ring, external	*To lock shifter axis inside the engine*	2 x 0,02€ = 0,04€	*0.022*	
Fastener	Other: Bolt grade 8.8	*M12, Center bolt for clutch system*	1 x 0,70€ = 0,70€	*0.7*	
Fastener	Other: Bolt grade 8.8	*M8x40, Btw shifter gear and engine*	1 x 0,05€ = 0,05€	*1 (nbr of bolt) * 0.05*	
Fastener	Other: Fitting, Weld-in, Male, Aluminum	*To drain engine, weld with oil sump*	1 x 4,06€ = 4,06€	*1 (nbr of fitting to weld) * 4.06*	

Fastener	Other: Fitting, L.P, female plug, aluminium	*Plug for draining outlet*	1 x 3,16€ = 3,16€	*1 (dash 6 plug) * 3.16*	
Honda CBR600RR Engine	*Second-hand, PC40*	Buy	1 x 2.700,00€ = 2.700,00€		EN_01001
Material	Bought Part	*n/a*	1 x 2.700,00€ = 2.700,00€	*Second hand from Accimoto*	
Spark plugs	*Second hand*	Buy	4 x 0,01€ = 0,04€		EN_01003
Material	Bought Part	*n/a*	1 x 0,01€ = 0,01€	*Sold with the engine*	
Wet slipper clutch	*To help with downshifting*	Buy	1 x 667,18€ = 667,18€		EN_01004
Material	Bought Part	*n/a*	1 x 667,00€ = 667,00€	*Bought new, price without taxes, Maxxess*	
Fastener	Other: Bolt grade 8.8	*M6, To contraint the clutch mecanism*	6 x 0,03€ = 0,18€	*0.03*	
Thermostat	*From PC37, new*	Buy	1 x 57,54€ = 57,54€		EN_01005
Material	Bought Part	*n/a*	1 x 57,50€ = 57,50€	*From honda, price without taxes*	
Fastener	Other: Bolt grade 8.8	*M6, Top of thermostat and thermostat*	2 x 0,02€ = 0,04€	*0.02*	
PAIR plate	*Permit to close the PAIR sensors*	Make	2 x 1,61€ = 3,22€		EN_01006
Material	Other: Aluminium 2017A	*Sheet 2mm*	1 x 0,41€ = 0,41€	*For one pair plate : 0,00424*97,20*	
Process	Other: Programming	*Laser cut*	1 x 0,61€ = 0,61€	*Laser cut - Operator*	
Process	Other: Laser cut setup, install and remove	*Laser cut*	1 x 0,10€ = 0,10€	*For one pair plate: 0,00424*2.37*	
Process	Laser Cut	*Laser cut*	1 x 0,08€ = 0,08€	*Laser cut for one pair plate=222*0,0003*	
Process	Other: Metrology	*To be completed*	1 x 0,41€ = 0,41€	*Metrology - Operator*	
Adaptater oil pressure	*Permit to plug our oil pressure sensors*	Make	1 x 31,63€ = 31,63€		EN_01007
Material	Other: Aluminium 2017A	*Raw material*	1 x 0,17€ = 0,17€	*9852*1,75E-5*	
Process	Other: Programming	*Turning (+ milling)*	1 x 0,20€ = 0,20€	*2.04E-5*9852*	
Process	Other: Machining setup, install and remove	*Turning*	1 x 14,17€ = 14,17€	*14,17*	
Process	Other: Machining (CNC)	*Turning, phase 1*	1 x 0,89€ = 0,89€	*9,06E-5*9852*	
Process	Other: Machining setup, change	*Turning*	1 x 14,17€ = 14,17€	*14,17*	
Process	Other: Machining (CNC)	*Turning, phase 2 + milling*	1 x 1,87€ = 1,87€	*(9.06E-5+9.94E-5)*9852*	
Process	Other: Metrology	*Turning*	1 x 0,16€ = 0,16€	*1,63E-5*9852*	
Oil sump shell	*Contain engine's oil*	Make	1 x 15,65€ = 15,65€		EN_01008
Material	Other: Aluminium 2017A	*Sheet 2,5mm*	1 x 6,08€ = 6,08€	*0.05*121,50*	
Process	Other: Programming	*Laser cut*	1 x 0,61€ = 0,61€	*0,61*	
Process	Other: Laser cut setup, install and remove	*Laser cut*	1 x 0,01€ = 0,01€	*2.37*0,05*	
Process	Laser Cut	*Laser cut*	1 x 0,38€ = 0,38€	*1056,4*0,000362*	
Process	Other: Metrology	*Laser cut*	1 x 0,41€ = 0,41€	*0,41*	
Process	Bending	*x4, 1 bending for each side, 90 degrees*	1 x 8,16€ = 8,16€	*4 (nbr of bendings) * 2.04*	

Join plate	*Weld with sump shell, attached to engine*		Buy		1 x 75,00€ = 75,00€	EN_01009
Material	Bought Part	*n/a*		1 x 75,00€ = 75,00€	*Subcontracting, too thick (8mm)*	
Anti-planing plate	*Limit oil move, welded with oil sump*		Make		1 x 2,04€ = 2,04€	EN_01010
Material	Other: Aluminium 2017A	*Sheet 2,5mm*		1 x 0,85€ = 0,85€	*0,007*121,5*	
Process	Other: Programming	*Laser cut*		1 x 0,61€ = 0,61€	*0.61 by programming*	
Process	Other: Laser cut setup, install and remove	*Laser cut*		1 x 0,02€ = 0,02€	*0.007*2.37*	
Process	Laser Cut	*Laser cut*		1 x 0,15€ = 0,15€	*417.1*3.62E-4*	
Process	Other: Metrology	*Laser cut*		1 x 0,41€ = 0,41€	*0,41*	
Smooth clutch disc	*Discs of the clutch system, new*		Buy		8 x 5,00€ = 40,00€	EN_01011
Material	Bought Part	*n/a*		1 x 5,00€ = 5,00€	*Bought from Maxxes, price without taxes*	
Lining clutch disc	*Discs of the clutch system, new*		Buy		7 x 8,00€ = 56,00€	EN_01012
Material	Bought Part	*n/a*		1 x 8,00€ = 8,00€	*Buy from Maxxes, price without taxes*	
Shifter axis	*Shaft between Shifter and gear motor*		Make		1 x 37,52€ = 37,52€	EN_01013
Material	Other: Steel, 25CD4	*Round*		1 x 1,09€ = 1,09€	*73200*1,49E-5*	
Process	Other: Programming	*Turning (+ milling)*		1 x 2,99€ = 2,99€	*73200*(2,04E-4+2,04E-4))*	
Process	Other: Machining setup, install and remove	*Turning*		1 x 14,17€ = 14,17€	*14,17*	
Process	Other: Machining (CNC)	*Turning, phase 1*		1 x 4,09€ = 4,09€	*45135*9,06E-5*	
Process	Other: Machining setup, change	*Turning*		1 x 14,17€ = 14,17€	*14,17*	
Process	Other: Machining (CNC)	*Turning, phase 2 + milling*		1 x 0,39€ = 0,39€	*109.3*9,06E-5+9,94E-5*37960*	
Process	Other: Metrology	*Turning*		1 x 0,62€ = 0,62€	*37960*1,63E-5*	
Shifter gear	*Assemble with shifter axis*		Make		1 x 40,66€ = 40,66€	EN_01014
Material	Other: Steel, 25CD4	*Round*		1 x 1,19€ = 1,19€	*80157*1,49E-5*	
Process	Other: Programming	*Turning*		1 x 1,64€ = 1,64€	*80157*2,04E-5*	
Process	Other: Machining setup, install and remove	*Turning*		1 x 14,17€ = 14,17€	*14,17*	
Process	Other: Machining (CNC)	*Turning, phase 1*		1 x 5,71€ = 5,71€	*63121*9,06E-5*	
Process	Other: Machining setup, change	*Turning*		1 x 14,17€ = 14,17€	*14,17*	
Process	Other: Machining (CNC)	*Turning, phase 2 + milling*		1 x 3,28€ = 3,28€	*2683*9,06E-5+30630*9,94E-5*	
Process	Other: Metrology	*Turning*		1 x 0,50€ = 0,50€	*30630*1,63E-5*	
Fuel injectors	*Second hand*		Buy		4 x 0,05€ = 0,20€	EN_01002
Material	Bought Part	*n/a*		1 x 0,01€ = 0,01€	*Sold with the engine*	
Material	Other: Seal, O-ring, Elastomer	*Ensure sealing*		4 x 0,01€ = 0,04€	*Sold with the engine*	

EN (Engine & Drivetrain)	**Exhaust System**				2.006,59€	EN_A0200
[Assembly Processes]			Make		1 x 30,23€ = 30,23€	P_EN_A0200
Material	Other: Seal, O-ring, copper	*Ensure the sealing with the engine*		4 x 1,48€ = 5,92€	*by O-ring*	
Process	Other: Assemble by hand	*Exhaust flange to exhaust headers*		1 x 0,40€ = 0,40€	*0.10 €/exhaust flange * 4*	
Process	Other: Assemble by hand	*Assemble O-ring seal to engine*		1 x 0,40€ = 0,40€	*0.10 €/O-ring seal * 4*	
Process	Other: Assemble by hand	*Assemble headers to engine with nuts*		1 x 0,80€ = 0,80€	*0.10 €/nut * 8 nuts*	
Process	Other: Tighten bolts	*Tighten exhaust nuts*		1 x 1,60€ = 1,60€	*0.20 €/nut * 8 nuts*	
Process	Other: Assemble by hand	*Assemble 1st tubing collector to headers*		1 x 4,90€ = 4,90€	*2.45 €/1st tubing collector*	
Process	Other: Assemble by hand	*Assemble 2nd tubing collector to 1st*		1 x 2,45€ = 2,45€	*2.45 €/2nd tubing collector*	
Process	Other: Assemble by hand	*Assemble muffler to collector*		1 x 2,45€ = 2,45€	*2.45 * 1*	
Process	Other: Assemble by hand	*Assemble the springs*		1 x 0,50€ = 0,50€	*0.10 €/spring*	
Process	Other: Assemble by hand	*Assemble muffler clamp to muffler and M3*		1 x 0,10€ = 0,10€	*0.10 € * 1 bolt*	
Process	Other: Tighten bolts	*Tighten muffler clamp bolt*		1 x 0,20€ = 0,20€	*0.20 € * 1 bolt*	
Process	Other: Assemble by hand	*Assemble the loop strap to the frame*		1 x 0,10€ = 0,10€	*0.10 € * 1 loop strap*	
Process	Other: Tighten bolts	*Tighten the loop strap bolt*		1 x 0,20€ = 0,20€	*0.20 € * 1 loop strap*	
Process	Other: Assemble by hand	*Bolt, washer into loop strap*		1 x 0,10€ = 0,10€	*0.10 € * 1 bolt*	
Process	Other: Tighten bolts	*Tighten the bolt to the loop strap*		1 x 0,20€ = 0,20€	*0.20 € * 1 bolt*	
Fastener	Other: Steel loop Straps, Rubber-Cushioned	*Link up the muffler clamp to the frame*		1 x 2,08€ = 2,08€	*2.08 €/loop strap*	
Fastener	Other: Exhaust nuts	*Bought with the engine*		8 x 0,01€ = 0,08€	*Included within engine price*	
Fastener	Other: Bolt grade 8.8	*M10*		1 x 0,09€ = 0,09€	*M10x30mm*	
Fastener	Other: Washer, steel stainless	*Steel stainless, M10*		1 x 0,07€ = 0,07€	*0.07 * 1 (nbr of bolt)*	
Fastener	Other: Spring, exhaust system	*Link up parts of the system*		5 x 1,50€ = 7,50€	*1.50 € by spring*	
Fastener	Other: Bolt grade 8.8	*For muffler, M3*		1 x 0,02€ = 0,02€	*M3 x 20mm*	
Fastener	Other: Nut, grade 8.8	*For muffler, M3*		1 x 0,03€ = 0,03€	*M3*	
Fastener	Other: Washer, steel stainless	*For muffler, M3*		2 x 0,02€ = 0,04€	*M3*	

Exhaust header n°1	*Collect gas from the 1st cylinder*		Make		1 x 126,63€ = 126,63€	EN_02001
Material	Other: Tubing, Steel stainless, to weld	*45°, r=55mm, l=43.2mm*		1 x 3,40€ = 3,40€	*0.08 €/° * 45°*	
Material	Other: Tubing, Steel stainless, to weld	*l=140mm*		1 x 0,91€ = 0,91€	*6.50 €/m * 0.14 m*	
Material	Other: Tubing, Steel stainless, to weld	*90°, r=55mm, l=84.4mm*		1 x 6,80€ = 6,80€	*0.08 €/° * 90°*	
Material	Other: Tubing, Steel stainless, to weld	*l=100mm*		1 x 0,65€ = 0,65€	*6.50 €/m * 0.10 m*	
Process	Preparing	*Preparing before welding*		1 x 28,84€ = 28,84€	*7.21 €/tube * 4 tubes*	
Process	Other: Steel welding	*Exhaust tip and tubes welding together*		1 x 51,60€ = 51,60€	*0.12 €/mm * 430 mm*	
Process	Other: Steel welding	*Spring hooks welding*		1 x 1,92€ = 1,92€	*0.12 €/mm * 16 mm*	
Process	Sandblasting	*Coating preparing*		1 x 0,01€ = 0,01€	*Outsourced*	
Process	Coating	*Ceramic coating*		1 x 32,49€ = 32,49€	*Outsourced*	
Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*		1 x 0,01€ = 0,01€	*Bought with exhaust springs*	

Exhaust header n°2	*Collect gas from the 2nd cylinder*		Make	1 x 229,99€ = 229,99€	EN_02002
Material	Other: Tubing, Steel stainless, to weld	*l=40mm*		1 x 0,26€ = 0,26€	*6.50 €/m * 0.040 m*
Material	Other: Tubing, Steel stainless, to weld	*45 °, r=55mm, l=43.2mm*		1 x 3,40€ = 3,40€	*0.08 €/° * 45 °*
Material	Other: Tubing, Steel stainless, to weld	*l=55mm*		1 x 0,36€ = 0,36€	*6.50 €/m * 0.055 m*
Material	Other: Tubing, Steel stainless, to weld	*40 °, r=55mm, l=38.4mm*		1 x 3,02€ = 3,02€	*0.08 €/° * 40 °*
Material	Other: Tubing, Steel stainless, to weld	*l=45mm*		1 x 0,29€ = 0,29€	*6.50 €/m * 0.045 m*
Material	Other: Tubing, Steel stainless, to weld	*50 °, r=55mm, l=48mm*		1 x 3,78€ = 3,78€	*0.08 €/° * 50 °*
Material	Other: Tubing, Steel stainless, to weld	*l=20mm*		1 x 0,13€ = 0,13€	*6.50 €/m * 0.020 m*
Material	Other: Tubing, Steel stainless, to weld	*35 °, r=55mm, l=33.6mm*		1 x 2,64€ = 2,64€	*0.08 €/° * 35 °*
Material	Other: Tubing, Steel stainless, to weld	*l=60mm*		1 x 0,39€ = 0,39€	*6.50 €/m * 0.060 m*
Process	Preparing	*Preparing before welding*		1 x 64,89€ = 64,89€	*7.21 €/tube * 9 tubes*
Process	Other: Steel welding	*Exhaust tip and tubes welding together*		1 x 116,40€ = 116,40€	*0.12 €/mm * 970 mm*
Process	Other: Steel welding	*Spring hooks welding*		1 x 1,92€ = 1,92€	*0.12 €/mm * 16 mm*
Process	Sandblasting	*Coating preparing*		1 x 0,01€ = 0,01€	*Outsourced*
Process	Coating	*Ceramic coating*		1 x 32,49€ = 32,49€	*Outsourced*
Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*		1 x 0,01€ = 0,01€	*Bought with exhaust springs*

Exhaust header n°3	*Collect gas from the 3rd cylinder*		Make	1 x 139,81€ = 139,81€	EN_02003
Material	Other: Tubing, Steel stainless, to weld	*35 °, r=55mm, l=33.6mm*		1 x 2,64€ = 2,64€	*0.08 €/° * 35 °*
Material	Other: Tubing, Steel stainless, to weld	*120 °, r=55mm, l=115,2mm*		1 x 9,07€ = 9,07€	*0.08 €/° * 120 °*
Material	Other: Tubing, Steel stainless, to weld	*172 °, r=55mm, l=165,1mm*		1 x 13,00€ = 13,00€	*0.08 €/° * 172 °*
Material	Other: Tubing, Steel stainless, to weld	*l=35mm*		1 x 0,23€ = 0,23€	*6.50 €/m * 0.035 m*
Process	Preparing	*Preparing before welding*		1 x 28,84€ = 28,84€	*7.21 €/tube * 4 tubes*
Process	Other: Steel welding	*Exhaust tip and tubes welding together*		1 x 51,60€ = 51,60€	*0.12 €/mm * 430 mm*
Process	Other: Steel welding	*Spring hooks welding*		1 x 1,92€ = 1,92€	*0.12 €/mm * 16 mm*
Process	Sandblasting	*Coating preparing*		1 x 0,01€ = 0,01€	*Outsourced*
Process	Coating	*Ceramic coating*		1 x 32,49€ = 32,49€	*Outsourced*
Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*		1 x 0,01€ = 0,01€	*Bought with exhaust springs*

Exhaust header n°4	*Collect gas from the 4th cylinder*		Make	1 x 161,45€ = 161,45€	EN_02004
Material	Other: Tubing, Steel stainless, to weld	*45 °, r=55mm, l=43.2mm*		1 x 3,40€ = 3,40€	*0.08 €/° * 45 °*
Material	Other: Tubing, Steel stainless, to weld	*102 °, r=55mm, l=98mm*		1 x 7,71€ = 7,71€	*0.08 €/° * 102 °*
Material	Other: Tubing, Steel stainless, to weld	*l=15mm*		1 x 0,10€ = 0,10€	*6.50 €/m * 0.015 m*
Material	Other: Tubing, Steel stainless, to weld	*195 °, r=55mm, l=187.2mm*		1 x 14,73€ = 14,73€	*0.08 €/° * 195 °*
Material	Other: Tubing, Steel stainless, to weld	*l=35mm*		1 x 0,23€ = 0,23€	*6.50 €/m * 0.035 m*
Process	Preparing	*Preparing before welding*		1 x 36,05€ = 36,05€	*7.21 €/tube * 5 tubes*
Process	Other: Steel welding	*Exhaust tip and tubes welding together*		1 x 64,80€ = 64,80€	*0.12 €/mm * 540 mm*
Process	Other: Steel welding	*Spring hooks welding*		1 x 1,92€ = 1,92€	*0.12 €/mm * 16 mm*
Process	Sandblasting	*Coating preparing*		1 x 0,01€ = 0,01€	*Outsourced*
Process	Coating	*Ceramic coating*		1 x 32,49€ = 32,49€	*Outsourced*

Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*	1 x 0,01€ = 0,01€	*Bought with the exhaust springs*	

1st tubing collector n°1	*Collect gas from exhaust header 1 and 4*	Make	1 x 321,71€ = 321,71€	EN_02005
Material	Other: Tubing, Steel stainless, to weld	*l=50mm*	1 x 0,50€ = 0,50€	*10 €/m * 0.050 m*
Material	Other: Tubing, Steel stainless, to weld	*35 °, r=55mm, l=33.6mm*	2 x 6,22€ = 12,44€	*16 €/° * 35 °*
Material	Other: Tubing, Steel stainless, to weld	*l=44mm*	1 x 0,44€ = 0,44€	*10 €/m * 0.044 m*
Material	Other: Tubing, Steel stainless, to weld	*To do the Y collector*	2 x 0,98€ = 1,96€	*6,50 €/m * 0.15m*
Material	Other: Tubing, Steel stainless, to weld	*Connection to other parts of exhaust*	2 x 0,24€ = 0,48€	*6.50 €/m * 0.037 m*
Process	Preparing	*Preparing before welding the Y collector*	1 x 129,79€ = 129,79€	*129.79 €/Y*
Process	Other: Steel welding	*Welding the two parts of the Y collector*	1 x 19,20€ = 19,20€	*0.12 €/mm * 160 mm*
Process	Preparing	*Preparing before welding*	1 x 14,42€ = 14,42€	*7.21 €/tube * 2 tubes*
Process	Other: Steel welding	*Welding the connection tube to the Y*	1 x 25,68€ = 25,68€	*7.21 €/mm * 114 mm*
Process	Preparing	*Preparing before welding*	1 x 28,84€ = 28,84€	*7.21 €/tube * 4 tubes*
Process	Other: Steel welding	*Tubes welding together*	1 x 51,60€ = 51,60€	*0.12 €/mm * 430 mm*
Process	Sandblasting	*Coating preparing*	1 x 0,01€ = 0,01€	*Outsourced*
Process	Coating	*Ceramic coating*	1 x 32,49€ = 32,49€	*Outsourced*
Process	Other: Steel welding	*Spring hooks welding*	1 x 3,84€ = 3,84€	*0.12 €/mm * 32 mm*
Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*	2 x 0,01€ = 0,02€	*Bought with exhaust springs*

1st tubing collector n°2	*Collect gas from exhaust header 2 and 3*	Make	1 x 247,76€ = 247,76€	EN_02006
Material	Other: Tubing, Steel stainless, to weld	*l=139mm*	1 x 1,39€ = 1,39€	*10 €/m * 0.139 m*
Material	Other: Tubing, Steel stainless, to weld	*To do the Y*	2 x 0,98€ = 1,96€	*6,50 €/m * 0.15m*
Material	Other: Tubing, Steel stainless, to weld	*Connection to other parts of exhaust*	2 x 0,24€ = 0,48€	*6.50 €/m * 0.037*
Process	Preparing	*Preparing before welding the Y collector*	1 x 129,79€ = 129,79€	*129.79 €/Y*
Process	Other: Steel welding	*Welding the two parts of the Y collector*	1 x 19,20€ = 19,20€	*0.12 €/mm * 160 mm*
Process	Preparing	*Preparing before welding the connection*	1 x 14,42€ = 14,42€	*7.21 €/tube * 2 tubes*
Process	Other: Steel welding	*Welding the connection tube to the Y*	1 x 25,68€ = 25,68€	*0.12 €/mm * 214 mm*
Process	Preparing	*Preparing before welding*	1 x 7,21€ = 7,21€	*7.21 €/tube * 1 tube*
Process	Other: Steel welding	*Tubes welding together*	1 x 13,20€ = 13,20€	*0.12 €/mm * 110 mm*
Process	Other: Steel welding	*Spring hooks welding*	1 x 1,92€ = 1,92€	*0.12 €/mm * 16 mm*
Process	Sandblasting	*Coating preparing*	1 x 0,01€ = 0,01€	*Outsourced*
Process	Coating	*Ceramic coating*	1 x 32,49€ = 32,49€	*Outsourced*
Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*	1 x 0,01€ = 0,01€	*Bought with exhaust springs*

2nd tubing collector	*Collect gas from primary collectors*	Make	1 x 330,09€ = 330,09€	EN_02007
Material	Other: Tubing, Steel stainless, to weld	*90 °, r=75mm, l=117.8mm*	1 x 9,00€ = 9,00€	*0.10 €/° * 90 °*
Material	Other: Tubing, Steel stainless, to weld	*50 °, r=75mm, l=65.4mm*	1 x 5,00€ = 5,00€	*0.10 €/° * 50 °*
Material	Other: Tubing, Steel stainless, to weld	*l=20mm*	1 x 0,26€ = 0,26€	*13 €/m * 0.020 m*
Material	Other: Tubing, Steel stainless, to weld	*To do the Y*	2 x 1,00€ = 2,00€	*none*
Material	Other: Tubing, Steel stainless, to weld	*Connection to other parts of exhaust*	2 x 0,37€ = 0,74€	*10 €/m * 0.037 m*

Process	Preparing	*Preparing before welding the Y collector*	1 x 129,79€ = 129,79€	*129.79 €/Y*	
Process	Other: Steel welding	*Welding the two parts of the Y collector*	1 x 19,20€ = 19,20€	*0.12 €/mm * 160 mm*	
Process	Preparing	*Preparing before welding the connection*	1 x 14,42€ = 14,42€	*7.21 €/tube * 2 tubes*	
Process	Other: Steel welding	*Welding the connection tube to the Y*	1 x 32,16€ = 32,16€	*0.12 €/mm * 264 mm*	
Process	Preparing	*Preparing before welding*	1 x 21,63€ = 21,63€	*7.21 €/tube * 3 tubes*	
Process	Other: Steel welding	*Tubes welding together*	1 x 57,60€ = 57,60€	*0.12 €/mm * 480 mm*	
Process	Other: Steel welding	*Spring hooks welding*	1 x 5,76€ = 5,76€	*0.12 €/mm * 48 mm*	
Process	Sandblasting	*Coating preparing*	1 x 0,01€ = 0,01€	*Outsourced*	
Process	Coating	*Ceramic coating*	1 x 32,49€ = 32,49€	*Outsourced*	
Fastener	Other: Spring hooks	*Hold the exhaust springs on the collecto*	3 x 0,01€ = 0,03€	*Bought with exhaust springs*	

Exhaust flange	*Join the collector to the engine*		Make	4 x 7,77€ = 31,08€	EN_02008
Material	Steel	*S355 ep 3mm, exhaust flange materials*	1 x 0,20€ = 0,20€	*58.275 €/m^2 * 3400 mm^2*	
Process	Programming	*Programming the exhaust flange machining*	1 x 0,61€ = 0,61€	*Operator - fixed cost*	
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*	1 x 0,81€ = 0,81€	*2.37 €/m^2 * 3400 mm^2*	
Process	Laser Cut	*Cut the plate*	1 x 0,13€ = 0,13€	*3.63E-4 €/mm * 360 mm*	
Process	Other: Metrology	*Metrology of the exhaust flange*	1 x 0,41€ = 0,41€	*Operator - fixed cost*	
Process	Sandblasting	*Coating preparing*	1 x 0,01€ = 0,01€	*Outsourced*	
Process	Coating	*Ceramic coating*	1 x 5,60€ = 5,60€	*Outsourced*	

Muffler	*Buy with a chicane*		Buy	1 x 250,00€ = 250,00€	EN_02009
Material	Bought Part	*n/a*	1 x 250,00€ = 250,00€	*Akrapovic muffler*	

Muffler clamp	*Fasten the muffler to the frame*		Make	1 x 17,00€ = 17,00€	EN_02010
Material	Aluminum	*2017A ep 1.5mm - Muffler clamp materials*	1 x 0,90€ = 0,90€	*72.90 €/m^2 * 12300 mm^2*	
Process	Programming	*Programming exhaust clamp machining*	1 x 0,61€ = 0,61€	*Operator - fixed cost*	
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*	1 x 2,93€ = 2,93€	*2.37 €/m^2 * 12300 mm^2*	
Process	Laser Cut	*Cut the plate*	1 x 0,32€ = 0,32€	*3.62E-4 €/mm * 880 mm*	
Process	Other: Metrology	*Metrology of the exhaust clamp*	1 x 0,41€ = 0,41€	*Operator - fixed cost*	
Process	Bending	*Change the plate shape*	1 x 10,20€ = 10,20€	*2.04 €/bending * 5*	
Process	Drilled hole	*M3 and M10*	1 x 1,63€ = 1,63€	*0.82 €/hole * 2 holes*	

Exhaust tip	*Part chich link collector to engine*		Make	4 x 30,21€ = 120,84€	EN_02011
Material	Other: Steel, 25CD4	*Exhaust tip material*	1 x 2,23€ = 2,23€	*1.49E-5 €/mm^3 * 15E4 mm^3*	
Process	Programming	*Turning (CNC)*	1 x 2,45€ = 2,45€	*2.04E-5 €/mm^3 * 12E4 mm^3*	
Process	Other: Machining setup, install and remove	*Turning (CNC)*	1 x 14,17€ = 14,17€	*By operator, fixed cost*	
Process	Other: Machining (CNC)	*Turning*	1 x 10,87€ = 10,87€	*9.06E-5 €/mm^3 * 12E4 mm^3*	
Process	Other: Metrology	*Turning (CNC)*	1 x 0,49€ = 0,49€	*1.63E-5 €/mm^3 * 3E4 mm^3*	

EN (Engine & Drivetrain)	**Fuel Tank – NOT THE HV-Battery**				282,22€	EN_A0900
[Assembly Processes]			Make	1 x 128,88€ = 128,88€		EN_A0900_P
Material	Other: Fiberglass Insulation	*Thermal protection of the Fuel Tank*		1 x 12,29€ = 12,29€	*122.9€ /m^2 * 0.1m^2*	
Material	Other: Glue, High temperature resistance	*To fix the thermal protection*		1 x 7,75€ = 7,75€	*fixed cost*	
Material	Fluid	*gasoline 98RON for engine checks*		1 x 2,75€ = 2,75€	*1.65€ /L *2L*	
Process	Other: Welding (Aluminium)	*Fuel Tank welding*		1 x 53,52€ = 53,52€	*0.12€ /cm * 446cm*	
Process	Other: Assemble by hand	*Vibration dampings sandwich on Fuel tank*		1 x 0,40€ = 0,40€	*0.1€ * 4 dampings*	
Process	Other: Tighten bolts	*Tighten vibration damping sandwich-Tank*		1 x 0,80€ = 0,80€	*0.2€ * 4 dampings*	
Process	Other: Assemble by hand	*Fuel tank on the tabs*		1 x 0,40€ = 0,40€	*0.1€ * 4 dampings*	
Process	Other: Tighten bolts	*Tighten Fuel tank on the tabs*		1 x 0,80€ = 0,80€	*0.2€ * 4 bolts*	
Process	Drilled hole	*Fuel Check Valve hole (20mm)*		1 x 0,82€ = 0,82€	*0.82€ * 1 hole*	
Process	Other: Sealing verification	*For alu welded part of the fuel tank*		1 x 3,46€ = 3,46€	*operator-fixed cost*	
Process	Cut (scissors, knife)	*Thermal protection to the Fuel Tank*		1 x 4,08€ = 4,08€	*0.002 €/mm * 2000mm*	
Process	Liquid Applicator Gun	*To fix the thermal protection*		1 x 0,82€ = 0,82€	*Operator-fixed cost*	
Process	Other: Fill with liquids, grease ...	*Gasoline in filler tube*		1 x 2,04€ = 2,04€	*operator-fixed cost*	
Process	Other: Sealing verification	*Sealng test to the fuel line*		1 x 6,62€ = 6,62€	*6.12€ operator-fixed cost*	
Fastener	Other: Mount, vibration damping, Sandwich	*Vibration-damping sandwitch fuel tank*		4 x 4,80€ = 19,20€	*4.80€ by vibration damping*	
Fastener	Other: Nut, grade 8.8	*M4 nut vibration damping*		4 x 0,03€ = 0,12€	*M4*	
Fastener	Other: Washer, steel stainless	*M4 washer for vibration damping*		8 x 0,02€ = 0,16€	*M4*	
Fastener	Other: Bolt grade 8.8	*M4 bolt vibration damping*		4 x 0,02€ = 0,08€	*M4*	
Fastener	Other: Fitting, Weld-in, Male, Aluminum	*For Dash6 connection*		3 x 3,38€ = 10,14€	*3.38€ by fitting*	
Fastener	Other: Fitting, L.P, female plug, aluminium	*Dash 6 plug for draining the Fuel Tank*		1 x 2,63€ = 2,63€	*2.63€ the female plug*	
Fuel Tank(main1)	*Under the seat (Folding-front part))*		Make	1 x 25,72€ = 25,72€		EN_09001
Material	Other: Aluminium 2017A	*Fuel tank plate material*		1 x 19,44€ = 19,44€	*97.2 €/m^2 *0.2m^2*	
Process	Programming	*Side plate*		1 x 0,61€ = 0,61€	*operator-fixed cost*	
Process	Other: Laser cut setup, install and remove	*Side plate*		1 x 0,43€ = 0,43€	*2.37 €/m^2 *0.18 m^2*	
Process	Laser Cut	*Side plate*		1 x 0,75€ = 0,75€	*3.62E-04 €/mm * 2077mm*	
Process	Other: Metrology	*Side plate*		1 x 0,41€ = 0,41€	*operator-fixed cost*	
Process	Bending	*Side plate*		1 x 4,08€ = 4,08€	*2.04€ * 2 bends*	
Fuel Tank(main2)	*Under the seat (Folding-top part)*		Make	1 x 25,08€ = 25,08€		EN_09002
Material	Other: Aluminium 2017A	*Fuel tank plate material*		1 x 21,00€ = 21,00€	*97.2€/m^2 * 0.216m^2*	
Process	Programming	*Upper plate*		1 x 0,61€ = 0,61€	*operator-fixed cost*	
Process	Other: Laser cut setup, install and remove	*Upper plate*		1 x 0,53€ = 0,53€	*2.37€/m^2* 0.22 m^2*	
Process	Laser Cut	*Upper plate*		1 x 0,49€ = 0,49€	*3.62E-04 €/mm* 1363mm*	
Process	Other: Metrology	*Upper plate*		1 x 0,41€ = 0,41€	*operator-fixed cost*	
Process	Bending	*Upper plate*		1 x 2,04€ = 2,04€	*2.04€ * 1 bend*	

Fuel Tank(bottom)	*Under the seat (Folding-bottom part)*		Make		1 x 23,49€ = 23,49€	EN_09003
Material	Other: Aluminium 2017A	*Fuel tank plate material*		1 x 19,44€ = 19,44€	*97.2€/m^2 * 0.2 m^2*	
Process	Programming	*Lower plate*		1 x 0,61€ = 0,61€	*operator- fixed cost*	
Process	Other: Laser cut setup, install and remove	*Lower plate*		1 x 0,48€ = 0,48€	*2.37€/m^2 *0.2m^2*	
Process	Laser Cut	*Lower plate*		1 x 0,51€ = 0,51€	*3.6E-04€/mm * 1412mm*	
Process	Other: Metrology	*Lower plate*		1 x 0,41€ = 0,41€	*operator- fixed cost*	
Process	Bending	*Lower plate*		1 x 2,04€ = 2,04€	*2.04€ * 1 bend*	
Fuel Tank(Triangle)	*Under the seat (With Fuel Tank)*		Make		1 x 5,40€ = 5,40€	EN_09004
Material	Other: Aluminium 2017A	*Fuel tank plate material*		1 x 2,14€ = 2,14€	*97.2€/m^2 * 0.022m^2*	
Process	Programming	*Cavity*		1 x 0,61€ = 0,61€	*operator-fixed cost*	
Process	Other: Laser cut setup, install and remove	*Cavity*		1 x 0,05€ = 0,05€	*2.37€/m^2* 0.02m^2*	
Process	Laser Cut	*Cavity*		1 x 0,15€ = 0,15€	*3.62E-04€/mm * 423mm*	
Process	Other: Metrology	*Cavity*		1 x 0,41€ = 0,41€	*operator-fixed cost*	
Process	Bending	*Cavity*		1 x 2,04€ = 2,04€	*2.04€ * 1 bend*	
Filler Neck	*Welded to Fuel Tank*		Make		1 x 8,02€ = 8,02€	EN_09005
Material	Other: Aluminium 2017A	*Neck tube material*		1 x 3,94€ = 3,94€	*26.25€/m* 0.15m*	
Process	Other: Saw or tubing cut	*Neck tube cut*		1 x 4,08€ = 4,08€	*2.04€ * 2 cuts*	
Filler Cap	*On the top of filler Tube*		Buy		1 x 36,58€ = 36,58€	EN_09006
Material	Bought Part	*n/a*		1 x 3,25€ = 3,25€	*none*	
Fastener	Other: Fuel check valve, in-line, aluminium	*On the filler cap*		1 x 33,33€ = 33,33€	*none*	
Filler Tube	*With Fuel Tank*		Make		1 x 29,05€ = 29,05€	EN_09007
Material	Other: Aluminium 2017A	*Filler neck body*		1 x 7,09€ = 7,09€	*26.25€/m * 0.27m*	
Material	Other: Aluminium 2017A	*Sight tube fitting*		1 x 0,18€ = 0,18€	*1.85€/m *0.1m*	
Material	Other: Hose, FEP	*Sight tube*		1 x 2,73€ = 2,73€	*9.09€/m* 0.3m*	
Material	Other: Hose, Rubber	*reinforced (neck-tube),filler(tube-cap)*		1 x 3,50€ = 3,50€	*23.3€/m *0.15m*	
Process	Other: Saw or tubing cut	*Filler neck body, and sight tube fittin*		1 x 6,12€ = 6,12€	*2.04€ * 3 cuts*	
Process	Other: Welding (Aluminium)	*Barb fittings welding on tube*		1 x 5,10€ = 5,10€	*0.12€/cm *42.5cm*	
Process	Cut (scissors, knife)	*Hose and sight tube cut*		1 x 0,83€ = 0,83€	*0.002€/mm* 108mm*	
Process	Assemble	*Hose and sight tube mounting*		1 x 0,80€ = 0,80€	*0.2€ *4 clamps*	
Process	Other: Tighten bolts	*Tighten sight tube clamp on Hoses*		1 x 0,80€ = 0,80€	*0.2€ * 4 clamps*	
Fastener	Hose Clamp	*Attach sight tube to filler tube*		2 x 0,42€ = 0,84€	*0.42€ unity, 12-18 mm diameter*	
Fastener	Hose Clamp	*Attach the filler tube to filler cap*		1 x 0,53€ = 0,53€	*0.53€ unity, 25-32mm diameter*	
Fastener	Hose Clamp	*Attach filler tube to hose*		1 x 0,53€ = 0,53€	*0.53€ unity, 25-32mm diameter*	

EN (Engine & Drivetrain)	**Intake System**				1.717,09€	EN_A0300
[Assembly Processes]			Make		1 x 25,82€ = 25,82€	P_EN_A0300
Material	Other: Sealing paper	*Ensure the sealing between parts*		1 x 4,58€ = 4,58€	*70.63 €/m^2 * 64900 mm^2*	
Process	Programming	*Laser cut, sealing paper, flat bottomed*		1 x 0,61€ = 0,61€	*Operator - Fixed cost*	
Process	Other: Laser cut setup, install and remove	*Laser cut*		1 x 0,06€ = 0,06€	*2.37 €/m^2 * 22500 mm^2*	
Process	Laser Cut	*Laser cut*		1 x 0,41€ = 0,41€	*3.62E-4 €/mm * 1140 mm*	
Process	Other: Metrology	*Laser cut*		1 x 0,61€ = 0,61€	*Operator verification*	
Process	Other: Assemble by hand	*Assemble together with bolts M4*		1 x 1,00€ = 1,00€	*0.10 € * 10 bolts*	
Process	Other: Tighten bolts	*Link up flat-bottomed to tubing*		1 x 2,00€ = 2,00€	*0.20 € * 10 bolts*	
Process	Programming	*Laser cut, sealing paper, air manifold*		1 x 0,61€ = 0,61€	*Operator - Fixed cost*	
Process	Other: Laser cut setup, install and remove	*Laser cut*		1 x 0,11€ = 0,11€	*2.37 €/m^2 * 42400 mm^2*	
Process	Laser Cut	*Laser cut*		1 x 0,50€ = 0,50€	*3.62E-4 €/mm * 1370 mm*	
Process	Other: Metrology	*Laser cut verification*		1 x 0,61€ = 0,61€	*Operator, fixed cost*	
Process	Other: Assemble by hand	*Assemble together with bolts M3*		1 x 1,00€ = 1,00€	*0.10 € * 10 bolts*	
Process	Other: Tighten bolts	*Link up air manifold to assembly*		1 x 2,00€ = 2,00€	*0.20 € * 10 bolts*	
Process	Other: Assemble by hand	*Coopling sleeves, engine, bolts M6*		1 x 0,60€ = 0,60€	*0.10 € * 6 bolts*	
Process	Other: Tighten bolts	*Link up coopling sleeves to engine*		1 x 1,20€ = 1,20€	*0.20 € * 6 bolts*	
Process	Other: Assemble by hand	*Hose clamps, coopling sleeves, assembly*		1 x 0,80€ = 0,80€	*0.20 € * 4 clamps*	
Process	Other: Tighten bolts	*Tighten hose clamps*		1 x 0,80€ = 0,80€	*0.20 € * 4 clamps*	
Process	Other: Assemble by hand	*Frame mounting tubes, mounting plates M4*		1 x 0,40€ = 0,40€	*0.10 € * 4 bolts*	
Process	Other: Tighten bolts	*Link up the two parts to assembly*		1 x 0,80€ = 0,80€	*0.20 € * 4 bolts*	
Process	Other: Assemble by hand	*Engine mounting tubes, M4*		1 x 0,40€ = 0,40€	*0.10 € * 4 bolts*	
Process	Other: Tighten bolts	*Link up assembly to engine mounting tube*		1 x 0,80€ = 0,80€	*0.20 € * 4 bolts*	
Fastener	Other: Bolt grade 8.8	*M3, air manifold*		10 x 0,02€ = 0,20€	*Length 20mm*	
Fastener	Other: Nut, grade 8.8	*M3, air manifold*		10 x 0,03€ = 0,30€	*0.03 € by unity*	
Fastener	Other: Washer, steel stainless	*M3, air manifold*		20 x 0,02€ = 0,40€	*0.02 € by unity*	
Fastener	Other: Bolt grade 8.8	*M4, flat bottomed*		18 x 0,02€ = 0,36€	*Length 20mm*	
Fastener	Other: Nut, grade 8.8	*M4, flat bottomed*		18 x 0,03€ = 0,54€	*0.03 € by unity*	
Fastener	Other: Washer, steel stainless	*M4, flat bottomed*		36 x 0,02€ = 0,72€	*0.02 € by unity*	
Process	Other: Metrology	*Laser cut*		1 x 0,61€ = 0,61€	*Operator verification*	
Fastener	Other: Bolt grade 8.8	*M6, coopling sleeves*		6 x 0,01€ = 0,06€	*Bought with the engine*	
Process	Other: Metrology	*Laser cut verification*		1 x 0,61€ = 0,61€	*Operator, fixed cost*	
Fastener	Hose Clamp	*Link up to the tubing collector*		4 x 0,53€ = 2,12€	*0.53 € by unity*	

Air manifold	*Under the restrictor*		Buy		1 x 756,00€ = 756,00€	EN_03001
Material	Bought Part	*n/a*		1 x 756,00€ = 756,00€	*Bought from ARRK*	

Flat-bottomed	*Under the air manifold*		Make		1 x 5,70€ = 5,70€	EN_03002
Material	Other: Aluminium 2017A	*ep 2mm - Flat-bottomed material*		1 x 4,12€ = 4,12€	*97.20 €/m^2 * 42400 mm^2*	

Process	Programming	*Laser cut : flat-bottomed machining*	1 x 0,61€ = 0,61€	*Operator - fixed cost*	
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*	1 x 0,11€ = 0,11€	*2.37 €/m^2 * 42400 mm^2*	
Process	Laser Cut	*Laser cut*	1 x 0,45€ = 0,45€	*3.62E-4 €/mm * 1240 mm*	
Process	Other: Metrology	*Metrology of the flat-bottomed*	1 x 0,41€ = 0,41€	*Operator - fixed cost*	

Tubing collector	*Link up the flat-bottomed to the engine*	Buy	1 x 888,00€ = 888,00€	EN_03003
Material	Bought Part	*n/a*	1 x 888,00€ = 888,00€	*none*

Coupling sleeve	*Link up the air intake to the engine*	Buy	2 x 0,01€ = 0,02€	EN_03004
Material	Bought Part	*n/a*	1 x 0,01€ = 0,01€	*Buy with the engine*

Left frame mounting tube	*Fasten the air intake to the frame*	Make	1 x 7,68€ = 7,68€	EN_03005
Material	Other: Aluminium 2017A	*Frame mounting tube material*	1 x 0,35€ = 0,35€	*3.19 €/m * 0.11*
Process	Other: Saw or tubing cut	*Cut the tube*	1 x 4,08€ = 4,08€	*2.04 €/cutting * 2*
Process	Other: Press operation	*Create a plane surface*	1 x 0,82€ = 0,82€	*0.41 €/press op * 2*
Process	Drilled hole	*M6*	1 x 1,63€ = 1,63€	*0.82 €/hole * 2 holes*
Process	Grinding	*Remove strong angles*	1 x 0,80€ = 0,80€	*0.20 €/grinding * 4*

Right frame mounting tube	*Fasten the air intake to the frame*	Make	1 x 7,87€ = 7,87€	EN_03006
Material	Other: Aluminium 2017A	*Frame mounting tube material*	1 x 0,54€ = 0,54€	*3.19 €/m * 0.17 m*
Process	Other: Saw or tubing cut	*Cut the tube*	1 x 4,08€ = 4,08€	*2.04 €/cutting * 2*
Process	Other: Press operation	*Create a plane surface*	1 x 0,82€ = 0,82€	*0.41 €/press op * 2*
Process	Drilled hole	*M6*	1 x 1,63€ = 1,63€	*0.82 €/hole * 2 holes*
Process	Grinding	*Remove strong angles*	1 x 0,80€ = 0,80€	*0.20 €/grinding * 4*

Engine mounting tube	*Fasten the air intake to the engine*	Make	2 x 11,79€ = 23,58€	EN_03007
Material	Other: Aluminium 2017A	*Engine mounting tube material*	1 x 0,80€ = 0,80€	*3.19 €/m * 0.25*
Process	Other: Saw or tubing cut	*Cut the tube*	1 x 4,08€ = 4,08€	*2.04 €/cutting * 2*
Process	Other: Press operation	*Create a plane surface*	1 x 0,40€ = 0,40€	*0.41 €/press op * 2*
Process	Bending	*Change the tube shape*	1 x 4,08€ = 4,08€	*2.04 €/bending * 2*
Process	Drilled hole	*M6*	1 x 1,63€ = 1,63€	*0.82 €/hole * 2 holes*
Process	Grinding	*Remove strong angles*	1 x 0,80€ = 0,80€	*0.20 €/grinding * 4*

Mounting plate	*Fasten the restrictor to the air intake*	Make	2 x 1,21€ = 2,42€	EN_03008
Material	Other: Aluminium 2017A	*Thickness 1.5mm Mounting plate material*	1 x 0,03€ = 0,03€	*72.90 €/m^2 * 470 mm^2*
Process	Programming	*Programming mounting plate machining*	1 x 0,61€ = 0,61€	*Operator - fixed cost*
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*	1 x 0,12€ = 0,12€	*2.37 €/m^2 * 470 mm^2*
Process	Laser Cut	*M4*	1 x 0,04€ = 0,04€	*3.62E-4 €/mm * 120 mm*
Process	Other: Metrology	*Metrology of the mounting plate*	1 x 0,41€ = 0,41€	*Operator - fixed cost*

EN (Engine & Drivetrain)	**Other: Fuel system**		*Fuel system parts + lines*		508,78€	EN_A0500
[Assembly Processes]			Make		1 x 217,05€ = 217,05€	EN_A0500P
Material	Other: Hose, Stainless Steel Braided Outer, L.P	*Conect elements where fuel flows Dash6*		1 x 48,48€ = 48,48€	*30.30 €/m * 1.6m*	
Process	Other: Cut metallic hosses (grinder)	*For fuel lines*		1 x 20,39€ = 20,39€	*4.08€ *5 cuts*	
Process	Other: Assemble (fittings on hoses)	*All fittings assembly on stainless hoses*		1 x 40,79€ = 40,79€	*4.08 €*10 fittings*	
Process	Other: Tighten bolts	*Tighten fitting male part on female part*		1 x 2,04€ = 2,04€	*0.20€ *10 fittings*	
Process	Other: Assemble by hand	*Assemble Pump on Collar*		1 x 0,20€ = 0,20€	*0.2€ * 1 clamp*	
Process	Other: Assemble by hand	*Assemble Pump + Collar on Pump tab*		1 x 0,10€ = 0,10€	*0.1€ * 1 bolt*	
Process	Other: Tighten bolts	*Tighten M4 bolt Pump Collar-Tab*		1 x 0,20€ = 0,20€	*0.2€ * 1 bolt*	
Process	Other: Assemble by hand	*Assemble Fuel pressure regulator on Tab*		1 x 0,20€ = 0,20€	*0.1€ * 2 bolts*	
Process	Other: Tighten bolts	*Tighten M6 bolt pressure regulator-Tab*		1 x 0,40€ = 0,40€	*0.2€ * 2 bolts*	
Process	Other: Tighten bolts	*Tighten Tube nut*		1 x 0,20€ = 0,20€	*0.2€ * 1 nut*	
Process	Other: Tighten bolts	*Tighten fittings + adapters*		1 x 2,86€ = 2,86€	*0.2 € * 14 fittings*	
Process	Other: Assemble by hand	*Assemble Injectors on Fuel rail*		1 x 0,40€ = 0,40€	*0.1€* 4 injectors*	
Process	Other: Assemble by hand	*Assemble Rail on Admission pipe*		1 x 0,30€ = 0,30€	*0.1€ * 3 bolts*	
Process	Other: Tighten bolts	*Tighten M4 bolts Rail-admission pipe*		1 x 0,60€ = 0,60€	*0.2€* 3 bolts*	
Process	Other: Assemble by hand	*Assemble banjo on fuel rail*		1 x 0,10€ = 0,10€	*0.1 € * 1 banjo*	
Fastener	Other: Fitting, L.P., straight, aluminium	*Return-outlet fuel tank,inlet fuelFilter*		3 x 7,87€ = 23,61€	*7.87 € by fitting*	
Fastener	Other: Banjo fitting, straight, Aluminium	*Fuel rail alimentation*		1 x 25,86€ = 25,86€	*25.86 € the banjo*	
Fastener	Other: Adapter, L.P., Union Tee, Aluminum	*Regulator in*		1 x 12,69€ = 12,69€	*12.69 € the tee*	
Fastener	Other: Adapter, L.P., Female Flare, Aluminum	*Tee out, pump inlet*		2 x 11,17€ = 22,34€	*11.17 € the female adaptater*	
Fastener	Other: Adapter, L.P., Union Reducer, Aluminum	*Adaptater Pump inlet/outlet, regulator*		4 x 2,92€ = 11,68€	*2.92 the union reducer*	
Fastener	Other: Washer, steel stainless	*Copper to ensure the sealing ramp-banjo*		2 x 0,19€ = 0,38€	*0.19 € by washer copper*	
Fastener	Other: Bolt grade 8.8	*M4 bolt for Pump collar on Tab*		1 x 2,06€ = 2,06€	*M4*	
Fastener	Other: Nut, grade 8.8	*M4-nut collar on collar mount*		1 x 0,03€ = 0,03€	*M4*	
Fastener	Other: Washer, steel stainless	*M4 for collar on collar mount*		2 x 0,02€ = 0,04€	*M4*	
Fastener	Other: Bolt grade 8.8	*M6 bolt for regulator on tab*		2 x 0,02€ = 0,04€	*M6*	
Fastener	Other: Nut, grade 8.8	*M6 nut for regulator on tab*		2 x 0,45€ = 0,90€	*M6*	
Fastener	Other: Washer, steel stainless	*M6 washer for regulator on tab*		4 x 0,04€ = 0,16€	*M6*	
Fuel Rail	*Above the Engine*		Buy		1 x 1,66€ = 1,66€	EN_05001
Material	Bought Part	*n/a*		1 x 0,01€ = 0,01€	*buy with the engine*	
Fastener	Other: Bolt grade 8.8	*M6 bolt : rail on admission pipe*		3 x 0,02€ = 0,06€	*M6*	
Fastener	Other: Nut, grade 8.8	*M6 nut : rail on admission pip*		3 x 0,45€ = 1,35€	*M6*	
Fastener	Other: Washer, steel stainless	*M6 washer : rail on admission*		6 x 0,04€ = 0,24€	*M6*	
Fuel Pump	*Under the Fuel Tank*		Buy		1 x 110,00€ = 110,00€	EN_05002
Material	Bought Part	*n/a*		1 x 110,00€ = 110,00€	*Bought from Oreca*	

Pressure Regulator	*Left side of the Engine*		Buy		1 x 135,00€ = 135,00€	EN_05003
Material	Bought Part	*n/a*		1 x 135,00€ = 135,00€	*Bought from Oreca*	

Fuel Filter	*Next to the Fuel Pump*		Buy		1 x 8,10€ = 8,10€	EN_05004
Material	Bought Part	*n/a*		1 x 8,10€ = 8,10€	*Bought from Oreca*	

Fuel Pump Collar	*Around the Fuel Pump*		Make		1 x 19,57€ = 19,57€	EN_05005
Material	Other: Aluminium 2017A	*Collar material*		1 x 0,15€ = 0,15€	*72.9 €/m^2 * 0.002 m^2*	
Process	Programming	*Fuel Pump Collar*		1 x 0,61€ = 0,61€	*operator-fixed cost*	
Process	Other: Laser cut setup, install and remove	*Setup for laser cut*		1 x 0,01€ = 0,01€	*2.37€/m^2 * 0.002 m^2*	
Process	Laser Cut	*Fuel Pump Collar*		1 x 0,04€ = 0,04€	*3.62E-04 €/mm * 100mm*	
Process	Other: Metrology	*Fuel Pump Collar*		1 x 0,41€ = 0,41€	*operator-fixed cost*	
Process	Bending	*Rolling at 90°*		1 x 18,35€ = 18,35€	*2.04€ * 9 bendings*	

Pressure Sensor Adapter	*At the end of the Fuel Rail*		Make		1 x 17,40€ = 17,40€	EN_05006
Material	Other: Aluminium 2017A	*17mm external diameter*		1 x 0,25€ = 0,25€	*1.75E-05 €/mm^3 *14137.16 mm^3*	
Process	Programming	*Turning + Milling*		1 x 1,22€ = 1,22€	*operator- fixed cost*	
Process	Other: Machining setup, install and remove	*Turning (CNC)*		1 x 7,82€ = 7,82€	*operator fixed-cost*	
Process	Other: Machining (CNC)	*Turning*		1 x 0,22€ = 0,22€	*9.94E-05 €/mm^3 * 2474mm^3*	
Process	Other: Metrology	*Turning (CNC)*		1 x 0,04€ = 0,04€	*1.63E-05 €/mm^3* 2474 mm^3*	
Process	Other: Machining setup, install and remove	*Milling (CNC)*		1 x 7,82€ = 7,82€	*operator-fixed cost*	
Process	Machining	*Milling*		1 x 0,02€ = 0,02€	*2.08E-05 €/mm^3 *100mm^3*	
Process	Other: Metrology	*Milling (CNC)*		1 x 0,01€ = 0,01€	*2.36E-05 €/mm^3 * 100mm^3*	

EN (Engine & Drivetrain)	**Overflow Bottles**				97,91€	EN_A0800
[Assembly Processes]			Make		1 x 73,91€ = 73,91€	EN_A0800_P
Material	Other: Hose, Stainless Steel Braided Outer, L.P	*From Engine's top and Expansion tank*		1 x 30,30€ = 30,30€	*1 m * 30,30*	
Material	Other: Paint	*Black paint, aerosol apply*		1 x 0,92€ = 0,92€	*500 (cm^2)* 2 cans * 0,0009*	
Process	Drilled hole	*Bottles drilling for hoses*		1 x 3,26€ = 3,26€	*4 (nbr of holes) * 0,82*	
Process	Other: Painting, aerosol apply	*For cans*		1 x 20,39€ = 20,39€	*500 (cm^2) * 2 (cans) * 0,02*	
Process	Other: Cut metallic hosses (grinder)	*Hoses cut*		1 x 9,16€ = 9,16€	*2 (nbr of cut) * 4,08*	
Process	Other: Assemble by hand	*Cans on frame, Hose mounting on cans*		1 x 2,04€ = 2,04€	*5 min of operator time*	
Process	Fastener install (every)	*Install can with tie wrap to frame*		1 x 0,40€ = 0,40€	*4 (nbr of tie wrap) * 0,1*	
Process	Fastener install (every)	*Install can with tie wrap to frame*		1 x 0,40€ = 0,40€	*4 (nbr of tie wrap) * 0,1*	
Fastener	Hose Clamp	*Engine and Expansion tank clamp*		2 x 0,42€ = 0,84€	*5 - 10 mm (diameter)*	
Fastener	Hose Clamp	*Engine and Expansion tank clamp*		2 x 0,42€ = 0,84€	*5 - 10 mm (diameter)*	
Fastener	Other: Zip tie	*Attach on the frame*		4 x 0,67€ = 2,68€	*4 (nbr of zip tie) * 0,17*	
Fastener	Other: Zip tie	*Attach on the frame*		4 x 0,67€ = 2,68€	*4 (nbr of zip tie) * 0,17*	

Oil overflow	*Contain the oil overflow*		Buy		1 x 12,00€ = 12,00€	EN_08001
Material	Bought Part	*n/a*		1 x 12,00€ = 12,00€	*Product container of varnishes*	

Water overflow	*Contain the water overflow*		Buy		1 x 12,00€ = 12,00€	EN_08002
Material	Bought Part	*n/a*		1 x 12,00€ = 12,00€	*Product container of varnishes*	

EN (Engine & Drivetrain)	**Throttle Body**				477,38€	EN_A0400
[Assembly Processes]			Make		1 x 20,75€ = 20,75€	P_EN_A0400
Material	Other: Sealing paper	*Ensure the sealing betwen parts*		1 x 0,35€ = 0,35€	*70.63 €/m^2 * 5000 mm^2*	
Material	Other: Seal, O-ring, Elastomer	*Ensure the sealing with air intake*		1 x 0,56€ = 0,56€	*1 (nbr of O-ring) * 0,56*	
Process	Programming	*Programming the sealing paper machining*		1 x 1,22€ = 1,22€	*0.61 €/program (Operator - Fixed cost)*	
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,01€ = 0,01€	*2.37 €/m^2 * 2000 mm^2*	
Process	Laser Cut	*Cut sealing paper*		1 x 0,35€ = 0,35€	*3.62E-4 €/mm * 970 mm*	
Process	Other: Assemble by hand	*All plates, sealing paper, M3*		1 x 0,50€ = 0,50€	*0.10 € * 5 bolts*	
Process	Other: Tighten bolts	*Link up all plates of the system*		1 x 1,00€ = 1,00€	*0.20 € * 5 bolts*	
Process	Programming	*Programming the sealing paper machining*		1 x 0,61€ = 0,61€	*0.61 €/program (Operator - Fixed cost)*	
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,01€ = 0,01€	*2.37 €/m^2 * 2000 mm^2*	
Process	Laser Cut	*Cut sealing paper*		1 x 0,20€ = 0,20€	*3.62E-4 €/mm * 560 mm*	
Process	Other: Assemble by hand	*Convergent, air restrictor, assembly, M3*		1 x 0,40€ = 0,40€	*0.10 € * 4 bolts*	
Process	Other: Tighten bolts	*link up the two parts to assembly*		1 x 0,80€ = 0,80€	*0.20 € * 4 bolts*	
Process	Other: Assemble by hand	*Air filter, hose clamp, convergent*		1 x 0,20€ = 0,20€	*0.20 € * 1 clamp*	
Process	Other: Tighten bolts	*Tighten the hose clamp*		1 x 0,20€ = 0,20€	*0.20 € * 1 clamp*	
Process	Other: Assemble by hand	*Assembly, O-ring seal, air intake, M6*		1 x 0,20€ = 0,20€	*0.10 € * 2 bolts*	
Process	Other: Tighten bolts	*Link up the assembly to air intake*		1 x 0,40€ = 0,40€	*0.20 € * 2 bolts*	
Process	Other: Assemble by hand	*Positionning bolts, nuts, washers M4*		1 x 0,20€ = 0,20€	*0.10 € * 2 bolts*	
Process	Other: Tighten bolts	*Link up the assembly to mounting plates*		1 x 0,40€ = 0,40€	*0.20 € * 2 bolts*	
Fastener	Other: Bolt grade 8.8	*M3, all plates + aire restrictor*		9 x 0,02€ = 0,18€	*M3, length 20mm*	
Fastener	Other: Nut, grade 8.8	*M3, all plates + aire restrictor*		9 x 0,03€ = 0,27€	*M3*	
Fastener	Other: Washer, steel stainless	*M3, all plates + aire restrictor*		18 x 0,02€ = 0,36€	*M3*	
Fastener	Other: Bolt grade 8.8	*M4, mounting plates*		2 x 0,02€ = 0,04€	*M4, Length 20mm*	
Fastener	Other: Nut, grade 8.8	*M4, mounting plates*		2 x 0,03€ = 0,06€	*M4*	
Fastener	Other: Washer, steel stainless	*M4, mounting plates*		4 x 0,02€ = 0,08€	*M4*	
Fastener	Other: Bolt grade 8.8	*M6*		2 x 0,02€ = 0,04€	*Length 20mm*	
Fastener	Other: Nut, grade 8.8	*M6*		2 x 0,02€ = 0,04€	*none*	
Fastener	Other: Washer, steel stainless	*M6*		4 x 0,04€ = 0,16€	*none*	
Fastener	Hose Clamp	*Link up the air filter to convergent*		1 x 0,53€ = 0,53€	*none*	
Fastener	Other: Spring, intake system	*Counter spring for the slide throttle*		2 x 5,69€ = 11,38€	*none*	

Inferior plate	*Under the moving plate*		Make		1 x 4,34€ = 4,34€	EN_04001
Material	Other: Steel, S235	*S235 ep 1.5mm - Inferior plate material*		1 x 0,06€ = 0,06€	*12.82 €/m^2 * 4900 mm^2*	
Process	Programming	*Programming the inferior plate machining*		1 x 0,61€ = 0,61€	*Operator - fixed cost*	
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,02€ = 0,02€	*2.37 €/m^2 * 4900 mm^2*	
Process	Laser Cut	*Cut the plate*		1 x 0,21€ = 0,21€	*3.62E-4 €/mm * 590 mm*	
Process	Other: Metrology	*Metrology of the inferior plate*		1 x 0,41€ = 0,41€	*Operator - fixed cost*	
Process	Bending	*Change the shape of the plate*		1 x 2,04€ = 2,04€	*2.04 €/bending * 1*	
Process	Other: Burring	*Inferior plate burring*		1 x 0,01€ = 0,01€	*Outsourced with medium plate coating?*	

Process	Painting	*Black painting*		1 x 0,98€ = 0,98€	*0.02 €/cm^2 * 48 cm^2*
Front stop plate	*Stop the translation of the moving plate*		Make	1 x 4,11€ = 4,11€	EN_04002
Material	Other: Aluminium 2017A	*Thickness 2.5mm*		1 x 0,70€ = 0,70€	*121.50 €/m^2 * 5800 mm^2*
Process	Programming	*Laser cut*		1 x 0,61€ = 0,61€	*Operator - fixed cost*
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,02€ = 0,02€	*2,37 €/m^2 * 5800 mm^2*
Process	Laser Cut	*Cut the plate*		1 x 0,17€ = 0,17€	*3.62E-4 €/mm * 480 mm*
Process	Other: Metrology	*Metrology of the front stop plate*		1 x 0,41€ = 0,41€	*Operator - fixed cost*
Process	Bending	*Bending the plate*		1 x 2,04€ = 2,04€	*2.04 €/bending * 1*
Process	Painting	*Black painting*		1 x 0,16€ = 0,16€	*0.02 €/cm^2 * 8 cm^2*
Rear stop plate	*Stop the translation of the moving plate*		Make	1 x 1,19€ = 1,19€	EN_04003
Material	Other: Aluminium 2017A	*Thickness 2.5mm*		1 x 0,05€ = 0,05€	*121.50 €/m^2 * 440 mm^2*
Process	Programming	*Laser cut*		1 x 0,61€ = 0,61€	*Operator - fixed cost*
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,01€ = 0,01€	*2.37 €/m^2 * 440 mm^2*
Process	Laser Cut	*Cut the plate*		1 x 0,05€ = 0,05€	*3.61E-4 €/mm * 140 mm*
Process	Other: Metrology	*Metrology of the rear stop plate*		1 x 0,41€ = 0,41€	*Operator - fixed cost*
Process	Painting	*Black painting*		1 x 0,06€ = 0,06€	*0.02 €/cm^2 * 3 cm^2*
Medium plate	*Moving plate*		Make	1 x 125,61€ = 125,61€	EN_04004
Material	Other: Steel, S355	*S355 ep 3mm - Medium plate material*		1 x 0,33€ = 0,33€	*58.27 €/m^2 * 5710 mm^2*
Process	Programming	*Programming the medium plate machining*		1 x 0,61€ = 0,61€	*Operator - fixed cost*
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,02€ = 0,02€	*2.37 €/m^2 * 5710 mm^2*
Process	Laser Cut	*Cut the plate*		1 x 0,14€ = 0,14€	*3.62E-4 €/mm * 380 mm*
Process	Other: Metrology	*Metrology of the superior plate*		1 x 0,41€ = 0,41€	*Operator - fixed cost*
Process	Other: Burring	*Medium plate burring*		1 x 0,01€ = 0,01€	*Outsourced with the coating*
Process	Bending	*Change the shape of the plate*		1 x 4,08€ = 4,08€	*2.04 €/bending * 2*
Process	Sandblasting	*Coating preparing*		1 x 0,01€ = 0,01€	*Outsourced with the coating[?]*
Process	Coating	*Sursulf coating*		1 x 120,00€ = 120,00€	*Contains price of all burrings*
Superior plate	*Above the moving plate*		Make	1 x 2,11€ = 2,11€	EN_04005
Material	Other: Steel, S235	*Thickness 1.5 mm*		1 x 0,05€ = 0,05€	*12.82 €/m^2 * 4200 mm^2*
Process	Programming	*Programming the superior plate machining*		1 x 0,61€ = 0,61€	*Operator - fixed cost*
Process	Other: Laser cut setup, install and remove	*Laser cut preparing*		1 x 0,01€ = 0,01€	*2.37 €/m^2 * 4200 mm^2*
Process	Laser Cut	*Cut the plate*		1 x 0,16€ = 0,16€	*3.62E-4 €/mm * 440 mm*
Process	Other: Metrology	*Metrology of the superior plate*		1 x 0,41€ = 0,41€	*Operator - fixed cost*
Process	Other: Burring	*Superior plate burring*		1 x 0,01€ = 0,01€	*Outsourced with medium plate coating[?]*
Process	Painting	*Black painting*		1 x 0,86€ = 0,86€	*0.02 €/cm^2 * 42 cm^2*

Air filter		*Filter the air which goes to the engine*	Buy		1 x 73,27€ = 73,27€	EN_04006
Material	Bought Part	*n/a*		1 x 73,27€ = 73,27€	*Bought from Maxxes*	
Convergent		*Link up the filter to the slide throttle*	Buy		1 x 94,50€ = 94,50€	EN_04007
Material	Bought Part	*n/a*		1 x 94,50€ = 94,50€	*Bought from ARRK*	
Air restrictor		*Link up the slide throttle to the intake*	Buy		1 x 151,50€ = 151,50€	EN_04008
Material	Bought Part	*n/a*		1 x 151,50€ = 151,50€	*Bought from ARRK*	

FR (Chassis & Body)	**Brackets => Braking System**			FR_0200_BR
Rear pedal bracket	*S355, 3mm thick*	Make	4 x	FR_02002_BR
Pedal fluid tank bracket	*S355, 1.5mm thick*	Make	1 x	FR_02003_BR
Tee breaking bracket	*S355, 1.5mm thick*	Make	1 x	FR_02004_BR
Front pedal bracket	*S355, 3mm thick*	Make	4 x	FR_02001_BR

FR (Chassis & Body)	**Brackets => Electrical**			FR_0200_EL
Dashboard bracket 1	*S235, 1.5mm thick*	Make	2 x	FR_02001_EL
Dashboard bracket 2	*S235, 1.5mm thick*	Make	1 x	FR_02002_EL
Dashboard bracket 3	*S235, 1.5mm thick*	Make	1 x	FR_02003_EL
Emergency stop bracket	*S355, 3mm thick*	Make	2 x	FR_02004_EL
Support battery bracket 2	*S235, 1.5mm thick*	Make	1 x	FR_02005_EL
Power box bracket	*S235, 1.5mm thick*	Make	2 x	FR_02006_EL
Master switch bracket	*S235, 1.5mm thick*	Make	2 x	FR_02007_EL
Crash sensor bracket	*S235, 1.5mm thick*	Make	1 x	FR_02008_EL
Support battery bracket 1	*S235, 1.5mm thick*	Make	2 x	FR_02009_EL
Electrical earth bracket	*S235, 1.5mm thick*	Make	4 x	FR_02010_EL
Breaklight bracket	*S235, 1.5mm thick*	Make	1 x	FR_02011_EL
Booster bracket	*S355, 3mm thick*	Make	1 x	FR_02012_EL

FR (Chassis & Body)	**Brackets => Engine & Powertrain**			FR_0200_EN
Engine bracket	*S700, 4mm thick*	Make	2 x	FR_02001_EN
Up excentric carry brack1	*S355, 3mm thick*	Make	2 x	FR_02002_EN
Low excentric carry brack	*S355, 3mm thick*	Make	4 x	FR_02003_EN
Up excentric carry brack2	*S355, 3mm thick*	Make	2 x	FR_02004_EN
Fuel tank bracket	*S235, 3mm thick*	Make	4 x	FR_02005_EN
Chain shield bracket 1	*S355, 3mm thick, top*	Make	1 x	FR_02006_EN
Pump bracket	*S235, 3mm thick*	Make	1 x	FR_02007_EN
Regulator bracket	*S235, 2mm thick, for pressure regulator*	Make	1 x	FR_02008_EN
Shifter bracket	*S355, 3mm thick*	Make	1 x	FR_02009_EN
Radiator bracket 1	*S355, 3mm thick, rear*	Make	1 x	FR_02010_EN
Expansion tank bracket	*S235, 1.5mm thick*	Make	1 x	FR_02011_EN
Air admission bracket	*S235, 1.5mm thick*	Make	2 x	FR_02012_EN
Clutch actuation axis	*S355, 1.5mm thick*	Make	1 x	FR_02013_EN
Clutch actu. cable holder	*S355, 1.5mm thick*	Make	1 x	FR_02014_EN
Chain shield bracket 2	*S355, 3mm thick, top*	Make	1 x	FR_02015_EN

Radiator bracket 2	*S355, 3mm thick, front*	Make	1 x	FR_02016_EN
Radiator bracket 3	*S355, 3mm thick, top*	Make	1 x	FR_02017_EN

FR (Chassis & Body)	**Brackets => Frame & Body**			FR_0200_FR
Jacking bar bracket	*attached to excentric carriers*	Make	2 x	FR_02001_FR
Body bracket	*S235, 1.5mm thick*	Make	4 x	FR_02002_FR
Floor pan bracket	*S235, 1.5mm thick*	Make	8 x	FR_02003_FR

FR (Chassis & Body)	**Brackets => Miscelleanous, Finish & Assembly**			FR_0200_MS
Upper bucket seat bracket	*S355, 3mm thick*	Make	2 x	FR_02001_MS
Lower bucket seat bracket	*S355, 3mm thick*	Make	4 x	FR_02002_MS
Harness bracket	*S700, 4mm thick*	Make	2 x	FR_02003_MS
Head support bracket	*S355, 3mm thick*	Make	2 x	FR_02004_MS
Firewall bracket	*S235, 1.5mm thick*	Make	12 x	FR_02005_MS

FR (Chassis & Body)	**Brackets => Steering system**			FR_0200_ST
Rack brackets	*S235, 1.5mm thick*	Make	2 x	FR_02001_ST

FR (Chassis & Body)	**Brackets => Suspension bracket**			FR_0200_SU
A-arm upper fr arm fr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02001_SU
A-arm upper fr arm fr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02002_SU
A-arm upper fr arm rr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02003_SU
A-arm upper fr arm rr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02004_SU
A-arm lower fr arm fr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02005_SU
A-arm lower fr arm fr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02006_SU
A-arm upper rr arm fr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02007_SU
A-arm upper rr arm fr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02008_SU
A-arm lower rr arm fr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02009_SU
A-arm lower rr arm fr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02010_SU
A-arm lower fr arm rr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02011_SU
A-arm lower fr arm rr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02012_SU
A-arm upper rr arm rr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02013_SU
A-arm upper rr arm rr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02014_SU
A-arm lower rr arm rr_2	*upper part, S700, 4mm thick*	Make	2 x	FR_02015_SU

A-arm lower rr arm rr_1	*lower part, S700, 4mm thick*	Make	2 x	FR_02016_SU
Fr anti roll bar bracket	*S700, 4mm thick*	Make	2 x	FR_02017_SU
Rr anti roll bar bracket	*S355, 3mm thick*	Make	2 x	FR_02018_SU
Front rocker bracket 1	*S355, 3mm thick*	Make	2 x	FR_02019_SU
Front rocker bracket 2	*S355, 3mm thick*	Make	2 x	FR_02020_SU
Ohlins front bracket	*S355, 3mm thick*	Make	2 x	FR_02021_SU
Ohlins rear bracket	*CNC machining*	Make	2 x	FR_02022_SU
Rear rocker bracket	*CNC machined part*	Make	2 x	FR_02023_SU

FR (Chassis & Body)	**Floor Pan**			FR_A0500
Rear floor pan	*Floor pan from front hoop to main hoop*	Buy	1 x	FR_05002
Front floor pan	*Floor pan from front hoop to front car*	Buy	1 x	FR_05001

FR (Chassis & Body)	**Frame** / **Frame Tubes**			FR_A0100
Round bent steel tubing	*25CrMo4 ; 30*2 (mm)*	Make	2 x	FR_01003
Steering bore	*CNC machining*	Make	1 x	FR_01004
Jacking bar	*CNC machining*	Make	1 x	FR_01005
Sleeved joint	*S350 ; Rules-compliant sleeved joints*	Make	2 x	FR_01006
Square steel tubing	*25CrMo4 ; 20*20*1,5 (mm)*	Make	1 x	FR_01002
Round steel tubing	*25CrMo4 ; 30*1,5, 25*1,5, 20*15, 15*1,5*	Make	87 x	FR_01001

FR (Chassis & Body)	**Impact Attenuator**			FR_A0300
Impact attenuator	*Approved by event*	Buy	1 x	FR_03001
Anti-Intrusion plate	*Steel, (thickness 1.5mm)*	Make	1 x	FR_03002

FR (Chassis & Body)	**Other: Bodywork**	*Bodywork*		FR_A0700
Back nose	*Part of the nose after the suspensions*	Buy	1 x	FR_07002
Big side plate	*Side plate from the front hoop to main*	Buy	2 x	FR_07003
Middle side plate	*Lower side plate with holes*	Buy	2 x	FR_07004
Medium side plate	*Side plate over the middle side plate*	Buy	2 x	FR_07005
Small side plate	*Side plate next to impact attenuator*	Buy	2 x	FR_07006
Push clips	*Attachement of the nose to the frame*	Buy	4 x	FR_07007
Nose	*Nose of the bodywork*	Buy	1 x	FR_07001

FR (Chassis & Body)	**Other: Clutch actuation system**	*Clutch actuation system*		FR_A0600
Lever	*Drilled tube*	Make	1 x	FR_06001
Clutch cable sheath	-	Buy	1 x	FR_06002
Clutch cable	-	Buy	1 x	FR_06003
Lock plate	*In the lever, prevent cable from removin*	Make	1 x	FR_06004
Cable protectors	*On the lever, prevent cable from cutting*	Make	2 x	FR_06005
Bronze rings	*Lubrificating rings for the lever*	Buy	2 x	FR_06006

FR (Chassis & Body)	**Pedals**			FR_A0400
Upper rail brake pedal	*Allow easy setup*	Make	1 x	FR_04001
Lower rail	*Same for pedal accel and brake*	Make	2 x	FR_04002
Accelerator pedal	*Aluminium, machining*	Make	1 x	FR_04003
Brake pedal	*Aluminium, machined part*	Make	1 x	FR_04004
Top foot support	*Laser cutted part + bending*	Make	2 x	FR_04005
Below foot support	*Laser cutted part + bending*	Make	2 x	FR_04006
Side support brake pedal	*Lateral support*	Make	2 x	FR_04007
Side support accelerator	*Symmetric allow FR_04018 to slide*	Make	2 x	FR_04008
Rod accelerator	*Rod mounted btw pedal and cable support*	Make	2 x	FR_04009
Brake support	*Brake over-travel switch support*	Make	1 x	FR_04010
Cable sheath support	*For accel. cable sheath*	Make	1 x	FR_04011
Inside spacer	*Upper part of the master cylinder*	Make	2 x	FR_04012
Outside spacer	*Upper part of the master cylinder*	Make	2 x	FR_04013
Upper rail accel. pedal	*Allow easy setup*	Make	1 x	FR_04014
Accel. cable sheath	*Cable protection*	Buy	1 x	FR_04015

Accel. cable	*To open the throttle*	Buy	1 x	FR_04016
Throttle pedal stop	*Mechanical stop*	Make	1 x	FR_04017
Accel pedal slide part	*Steel, slide on FR_04008*	Make	1 x	FR_04018

MS (Misc., Fit & Finish & Assembly)	**Driver's Harness**			MS_A0300
Harness	*Seatbelt of the Pilot*	Buy	1 x	MS_03001

MS (Misc., Fit & Finish & Assembly)	**Fire Wall**			MS_A0100
Firewall Bottom Plate	*Behind the seat*	Make	1 x	MS_01001
Firewall Middle Plate	*Below harness*	Make	1 x	MS_01002
Firewall Top Plate	*At the back of the head foam*	Make	1 x	MS_01003
Firewall Joints	*Triangles for MS_01003*	Make	2 x	MS_01004
Firewall Floor Plate	*Join the Firewall to the Floor Pan*	Make	1 x	MS_01005

MS (Misc., Fit & Finish & Assembly)	**Headrest / Restraints**			MS_A0200
Headrest Plate	*Sthrengthen the Headrest*	Make	1 x	MS_02001
Head Foam	*Absorb chocs for Head impact*	Buy	1 x	MS_02002
Side Head Foam	*Absorb chocs for Head impact on the side*	Buy	2 x	MS_02003
Top Back Foam	*Absorb chocs for back impact*	Buy	1 x	MS_02004

MS (Misc., Fit & Finish & Assembly)	**Seats**			MS_A0400
Seat	*Allow the Pilot to seat*	Buy	1 x	MS_04001
Back Foam	*Soften the seat for the back*	Buy	1 x	MS_04002

ST (Steering System)	**Steering Rack**					ST_A0300
[Assembly Processes]			Make		1 x	ST_A0300P
Process	Other: Assemble by hand	*ST_03002 and ST_03001 with tabs*		1 x		
Process	Other: Tighten bolts	*For the 4 M6 grade 12.9 bolts*		1 x		
Process	Other: Assemble by hand	*ST_03003 on frame tabs*		1 x		
Process	Other: Tighten bolts	*For the 4 M4 grade 8.8 bolts*		1 x		
Fastener	Other: Bolt grade 8.8	*M4, for ST_03003*		4 x		
Fastener	Other: Nut, grade 8.8	*M4, for ST_03003*		4 x		
Fastener	Other: Bolt grade 12.9	*Size M6*		4 x		
Fastener	Other: k-nuts	*Size M6*		4 x		
Fastener	Other: Washer, steel stainless	*Size M6*		4 x		
Steering Rack	*Bought at Formula Seven.*		Buy		1 x	ST_03001
Material	Bought Part	*n/a*		1 x		
Process	Drilled hole	*6mm hole in the Tie rod Braces, 2 holes*		1 x		
Half moon	*To support the steering rack.*		Make		4 x	ST_03002
Material	Other: Aluminium 2017A	*Raw material, 45x16x16 mm*		1 x		
Process	Programming	*Milling*		1 x		
Process	Other: Machining setup, install and remove	*Milling*		1 x		
Process	Other: Machining (CNC)	*Milling, For the half moon*		1 x		
Process	Other: Machining setup, change	*Milling*		1 x		
Process	Drilled hole	*Milling, 2 holes*		1 x		
Process	Other: Metrology	*To check the part*		1 x		
Steering Rack protection	*To protect the steering rack.*		Make		1 x	ST_03003
Material	Other: Plexiglass	*Sheet materials, 180x355mm*		1 x		
Process	Programming	*For laser cut*		1 x		
Process	Other: Laser cut setup, install and remove	*For laser cut*		1 x		
Process	Laser Cut	*Laser cut*		1 x		
Process	Other: Metrology	*To check the part*		1 x		
Process	Bending	*2 bending*		1 x		

ST (Steering System)	**Steering Shaft**					ST_A0200
[Assembly Processes]			Make		1 x	ST_A0200P
Material	Other: Paint	*Black color*		1 x		
Process	Preparing	*For the welding*		1 x		
Process	Other: Welding (Steel)	*Between ST_02001 and ST_02002*		1 x		
Process	Preparing	*For the welding*		1 x		
Process	Other: Welding (Steel)	*Between ST_02002 and ST_02003*		1 x		
Process	Preparing	*For the welding*		1 x		
Process	Other: Welding (Steel)	*Between ST_02003 and ST_02004*		1 x		
Process	Preparing	*For the welding*		1 x		
Process	Other: Welding (Steel)	*Between ST_02004 and ST_02005*		1 x		
Process	Other: Painting, aerosol apply	*On ST_02004 and ST_02005*		1 x		
Process	Other: Press operation	*1 x ST_02006 on ST_02002*		1 x		
Process	Other: Assemble by hand	*ST_02007 on ST_02003*		1 x		
Process	Other: Assemble by hand	*Steering shaft on rack and frame*		1 x		
Process	Other: Press operation	*1 x ST_02006 on ST_02002*		1 x		
Process	Fastener install (every)	*For the retaining ring*		1 x		
Fastener	Retaining Ring	*For the bearings*		1 x		
Quick Release Shaft	*Fixed part of the Quick release*		Buy		1 x	ST_02001
Material	Bought Part	*n/a*		1 x		
Steering Shaft Pivot	*Bearing seat for the steering pivot*		Make		1 x	ST_02002
Material	Other: Steel, 25CD4	*Circular section : diameter 32mm*		1 x		
Process	Programming	*Turning*		1 x		
Process	Other: Machining setup, install and remove	*Turning, First side*		1 x		
Process	Other: Machining (CNC)	*Turning, First side*		1 x		
Process	Other: Machining setup, change	*Turning, For the second side*		1 x		
Process	Other: Machining (CNC)	*Turning, For the second side*		1 x		
Process	Other: Metrology	*To Check the part*		1 x		
Steering U-joint	*U-joint for steering column and ST_02002*		Buy		1 x	ST_02003
Material	Bought Part	*n/a*		1 x		
Steering column	*Steering column*		Make		1 x	ST_02004
Material	Other: Tubing, Steel, 25CD4S	*Length of 343mm*		1 x		
Process	Other: Saw or tubing cut	*To cut the tube*		1 x		

Spline coupler	*Connect the steering column to the rack*		Buy		1 x	ST_02005
Material	Bought Part	*n/a*		1 x		
Process	Other: Machining setup, install and remove	*Turning*		1 x		
Process	Other: Machining (conventionnal)	*Turning, hole for steering column*		1 x		

Bearing, Ball, Radial	*Steering pivot bearings*		Buy		2 x	ST_02006
Material	Bought Part	*n/a*		1 x		

U-joint boot	*Over steering u-joint*		Buy		1 x	ST_02007
Material	Bought Part	*n/a*		1 x		

ST (Steering System)	**Steering Wheel**					ST_A0100
[Assembly Processes]			Make		1 x	P_ST_A0100
Process	Other: Assemble by hand	*ST_01003, ST_01002 and ST_01001*		1 x		
Process	Other: Tighten bolts	*For the 3 bolts*		1 x		
Fastener	Other: Bolt grade 8.8	*To attach the steering wheel*		3 x		
Fastener	Other: Nut, grade 8.8	*To attach the steering wheel*		3 x		
Fastener	Other: Washer, steel stainless	*To attach the steering wheel*		3 x		
Steering wheel	*Bought at Formula Seven.*		Buy		1 x	ST_01001
Material	Bought Part	*n/a*		1 x		
Process	Drilled hole	*4 holes*		1 x		
Spacer	*Between steering wheel and Quick release*		Make		1 x	ST_01002
Material	Other: Aluminium 2017A	*Raw material, 55x55x28 mm (Alu 2017A)*		1 x		
Process	Programming	*Milling*		1 x		
Process	Other: Machining setup, install and remove	*Milling*		1 x		
Process	Other: Machining (CNC)	*Milling, First face*		1 x		
Process	Other: Machining setup, change	*Milling*		1 x		
Process	Other: Machining (CNC)	*Milling, For the second face*		1 x		
Process	Other: Metrology	*Milling*		1 x		
Quick Release mobil part	*Removing part of the Quick release*		Buy		1 x	ST_01003
Material	Bought Part	*n/a*		1 x		

ST (Steering System)	**Tie Rods**				ST_A0400
[Assembly Processes]		Make		1 x	ST_A0400P
Material	Other: Glue, Structural Epoxy Adhesive	*To glue ST_04001 and ST_04003*	2 x		
Process	Hand Finish	*Surface of ST_04001*	1 x		
Process	Other: Surface cleaning, by hand	*Surface of ST_04001*	1 x		
Process	Liquid Applicator Gun	*To apply the glue*	1 x		
Process	Other: Assemble by hand	*ST_04001 and ST_04003*	1 x		
Process	Other: Assemble by hand	*ST_04001 and ST_04005 with the nut*	1 x		
Process	Other: Assemble by hand	*Assemble on fixture for dry time*	1 x		
Process	Other: Tighten bolts	*for fixture, same as on the car*	1 x		
Process	Hand Finish	*Surface of ST_04002*	1 x		
Process	Other: Surface cleaning, by hand	*Surface of ST_04002*	1 x		
Process	Liquid Applicator Gun	*To apply the glue*	1 x		
Process	Other: Assemble by hand	*ST_04002 and ST_04003*	1 x		
Process	Other: Assemble by hand	*ST_04002 and ST_04004 with the nut*	1 x		
Process	Other: Assemble by hand	*Assemble on fixture for dry time*	1 x		
Process	Other: Tighten bolts	*for fixture, same as on the car*	1 x		
Process	Other: Untighten bolts	*Remove from the fixture*	1 x		
Process	Other: Assemble by hand	*ST_04005 and ST_04007*	1 x		
Process	Other: Assemble by hand	*ST_04004 and ST_04006*	1 x		
Process	Other: Tighten bolts	*same as on the fixture*	1 x		
Fastener	Other: Nut, Low hex. Nut	*Right hand*	1 x		
Fastener	Other: Nut, Low hex. Nut	*left hand*	1 x		
Fastener	Other: Bolt grade 12.9	*M6*	2 x		
Fastener	Other: k-nuts	*M6*	2 x		
Fastener	Other: Washer, steel stainless	*M6*	2 x		
Tooling	Other: Fixture	*During dry time*	1 x		

Tapped insert, right hand	*Right-hand thread, glued to carbon tube*	Make		2 x	ST_04001
Material	Other: Aluminium, 7075 T6	*Raw material, D=18 mm and L=35mm*	1 x		
Process	Programming	*Turning+ flat spot*	1 x		
Process	Other: Machining setup, install and remove	*Turning*	1 x		
Process	Other: Machining (CNC)	*Turning + flat spot*	1 x		
Process	Other: Metrology	*Turning*	1 x		

Tapped insert, left hand	*Left-hand thread, glued to carbon tube*	Make		2 x	ST_04002
Material	Other: Aluminium, 7075 T6	*Raw material, D=18 mm and L=35mm*	1 x		
Process	Programming	*Turning+ flat spot*	1 x		
Process	Other: Machining setup, install and remove	*Turning*	1 x		

Process	Other: Machining (CNC)	*Turning+ flat spot*		1 x		
Process	Other: Metrology	*Turning*		1 x		
Carbon tube	*carbon tubes for tie rod*		Buy		2 x	ST_04003
Material	Bought Part	*n/a*		1 x		
Rod ends bearing, male r	*2 with a left-hand thread*		Buy		2 x	ST_04004
Material	Bought Part	*n/a*		1 x		
Rod ends bearing, male l	*2 with a right-hand thread*		Buy		2 x	ST_04005
Material	Bought Part	*n/a*		1 x		
Spacer 1	*M6 type 16 mm spacer, frame side*		Make		4 x	ST_04006
Material	Other: Steel, 30NCD8	*Raw material, D=18 mm and L=16mm*		1 x		
Process	Other: Machining setup, install and remove	*Turning*		1 x		
Process	Other: Machining (conventionnal)	*Turning*		1 x		
Spacer 2	*M6 type 25 mm spacer, wheel side*		Make		4 x	ST_04007
Material	Other: Steel, 30NCD8	*Raw material, D=10 mm and L=25mm*		1 x		
Process	Other: Machining setup, install and remove	*Turning*		1 x		
Process	Other: Machining (conventionnal)	*Turning*		1 x		

SU (Suspension System)	**A-Arms front lower**			SU_A0200
Lower fr. bearing support	*Wheel side*	Make	2 x	SU_02001
Inner bearing support	*Frame side*	Make	4 x	SU_02002
Front carbon fiber tube	*Carbon tube at the front*	Buy	2 x	SU_02003
Back Carbon fiber tube	*Carbon tube at the rear*	Buy	2 x	SU_02004
Spacer 1	*M6 type 16 mm spacer, frame side*	Make	8 x	SU_02005
Spacer 2	*M6 type 25 mm spacer, wheel side*	Make	4 x	SU_02006
Spherical bearing	*M6, steel/steel contact*	Buy	6 x	SU_02007

SU (Suspension System)	**A-Arms front upper**			SU_A0100
Upper fr. bearing support	*Wheel side*	Make	2 x	SU_01001
Inner bearing support	*Frame side*	Make	4 x	SU_01002
Front carbon fiber tube	*Carbon tube at the front*	Buy	2 x	SU_01003
Back Carbon fiber tube	*Carbon tube at the rear*	Buy	2 x	SU_01004
Spacer 1	*M6 type 16 mm spacer, frame side*	Make	8 x	SU_01005
Spacer 2	*M6 type 25 mm spacer, wheel side*	Make	4 x	SU_01006
Cylinder aluminium	*Glued junction carbon/bearing support*	Make	4 x	SU_01007
Spherical bearing	*M6, steel/steel contact*	Buy	6 x	SU_01008

SU (Suspension System)	**A-Arms rear lower**			SU_A0400
Lower rr. bearing support	*Wheel side*	Make	2 x	SU_04001
Inner bearing support	*Frame side*	Make	4 x	SU_04002
Front carbon fiber tube	*Carbon tube at the front*	Buy	2 x	SU_04003
Back Carbon fiber tube	*Carbon tube at the rear*	Buy	2 x	SU_04004
Spacer 1	*M6 type 16 mm spacer, frame side*	Make	8 x	SU_04005
Spacer 2	*M6 type 25 mm spacer, wheel side*	Make	4 x	SU_04006
Spherical bearing	*M6, steel/steel contact*	Buy	6 x	SU_04007

SU (Suspension System)	**A-Arms rear upper**			SU_A0300
Upper rr. bearing support	*Wheel side (1 + symmetric)*	Make	2 x	SU_03001
Inner bearing support	*Frame side*	Make	4 x	SU_03002
Front carbon fiber tube	*Carbon tube at the front*	Buy	2 x	SU_03003
Back Carbon fiber tube	*Carbon tube at the rear*	Buy	2 x	SU_03004
Spacer 1	*M6 type 16 mm spacer, frame side*	Make	8 x	SU_03005
Spacer 2	*M6 type 25 mm spacer, wheel side*	Make	4 x	SU_03006
Cylinder aluminium	*Glued junction carbon/bearing support*	Make	4 x	SU_03007
Spherical bearing	*M6, steel/steel contact*	Buy	6 x	SU_03008

SU (Suspension System)	**Anti Roll Bar Front**			SU_A1400
Torsion bar	*Tube used for the anti roll bar, 25CrMo4*	Buy	1 x	SU_14001
Right bearing support	*Outside diameter of the SU_14007*	Make	1 x	SU_14002
Left bearing support	*Outside diameter of the SU_14007*	Make	1 x	SU_14003
End plate	*Laser cutted, S355, 3mm thick*	Make	4 x	SU_14004
Rod ends bearing, male r	*2 male thread, ARB rod, right hand*	Buy	2 x	SU_14005
Rod ends bearing female r	*2 female thread, ARB rod, right hand*	Buy	2 x	SU_14006
Spherical plain bearings	*Used in the bearing supports, M12*	Buy	2 x	SU_14007
Spacer	*M6 type 16 mm spacer*	Make	4 x	SU_14008

SU (Suspension System)	**Anti Roll Bar Rear**			SU_A1500
Torsion bar	*Tube used for the anti roll bar, 25CrMo4*	Buy	1 x	SU_15001
Right bearing support	*Outside diameter of the SU_15007*	Make	1 x	SU_15002
Left bearing support	*Outside diameter of the SU_15007*	Make	1 x	SU_15003
End plate	*Laser cutted, S355, 3mm thick*	Make	4 x	SU_15004
Rod ends bearing, male r	*2 with a right-hand thread, ARB rod*	Buy	2 x	SU_15005
Rod ends bearing, male l	*2 with a left-hand thread, ARB rod*	Buy	2 x	SU_15006
Spherical plain bearings	*Used in the bearing support, M12*	Buy	2 x	SU_15007
Spacer	*M6 type 16 mm spacer*	Make	4 x	SU_15008
Aluminium tapped tube	*Aluminium tube for the ARB rod*	Make	2 x	SU_15009

SU (Suspension System)	**Bell Cranks Front**			SU_A0600
Front rocker	*Sheet of metal for the rocker*	Make	4 x	SU_06001
Front rocker spacer 1	*for the pivot*	Make	2 x	SU_06002
Front rocker spacer 2	*M6 type 20 mm spacer*	Make	8 x	SU_06003

SU (Suspension System)	**Bell Cranks Rear**			SU_A0800
Rear Rocker	*Sheet of metal for the rocker*	Make	4 x	SU_08001
Rear rocker spacer 1	*for the pivot*	Make	2 x	SU_08002
Rear rocker spacer 2	*M6 type 20 mm spacer*	Make	8 x	SU_08003

SU (Suspension System)	**Front Uprights**			SU_A1000
Front Left Upright	*Right's drawing, left is symmetric.*	Make	2 x	SU_10001
Upper Arm Bracket		Make	2 x	SU_10002
Upper Arm Wedge Shim	*2mm, 3mm, 1mm for camber adjustments*	Make	6 x	SU_10003
Speed Sensor Washer	*external sensor washer*	Make	2 x	SU_10004
Upper Arm Wedge Base		Make	2 x	SU_10005

SU (Suspension System)	**Push/Pullrod Front**			SU_A1200
Tapped insert, right hand	*Right-hand thread, glued to carbon tube*	Make	2 x	SU_12001
Tapped insert, left hand	*Left-hand thread, glued to carbon tube*	Make	2 x	SU_12002
Carbon tube	*carbon tubes for tie rod*	Buy	2 x	SU_12003
Rod ends bearing, male r	*2 with a right-hand thread*	Buy	2 x	SU_12004
Rod ends bearing, male l	*2 with a left-hand thread*	Buy	2 x	SU_12005
Spacer	*M6 type 16 mm spacer, A-arm side*	Make	4 x	SU_12006

SU (Suspension System)	**Push/Pullrod Rear**			SU_A1300
Tapped insert, right hand	*Right-hand thread, glued to carbon tube*	Make	2 x	SU_13001
Tapped insert, left hand	*Left-hand thread, glued to carbon tube*	Make	2 x	SU_13002
Carbon tube	*carbon tubes for tie rod*	Buy	2 x	SU_13003
Rod ends bearing, male r	*2 with a right-hand thread*	Buy	2 x	SU_13004
Rod ends bearing, male l	*2 with a left-hand thread*	Buy	2 x	SU_12005
Spacer	*M6 type 16 mm spacer, A-arm side*	Make	4 x	SU_13006

SU (Suspension System)	**Rear Uprights**			SU_A1100
Rear Left Upright	*Right's drawing, left is symmetric.*	Make	2 x	SU_11001
Upper Arm Bracket	*same part as in Front Assembly*	Make	2 x	SU_11002
Upper Arm Wedge Shim	*2mm,3mm, 1mm for camber adjustments*	Make	6 x	SU_11003
Speed Sensor Washer	*external sensor washer, same as front*	Make	2 x	SU_11004

SU (Suspension System)	**Shocks Front**			SU_A0500
Dampers	*Ohlins TTX 25*	Buy	2 x	SU_05001
Springs	*Springs mounted on the dampers*	Buy	2 x	SU_05002
Damper Spacers	*M8 type 20 mm spacer*	Make	8 x	SU_05003

SU (Suspension System)	**Shocks Rear**			SU_A0700
Dampers	*Ohlins TTX 25*	Buy	2 x	SU_07001
Springs	*Springs mounted on the dampers*	Buy	2 x	SU_07002
Damper spacers	*M8 type 20 mm spacer*	Make	8 x	SU_07003

SU (Suspension System)	**Tie Rod - Rear**			SU_A0900
Tapped insert, right hand	*Right-hand thread, glued to carbon tube*	Make	2 x	SU_09001
Tapped insert, left hand	*Left-hand thread, glued to carbon tube*	Make	2 x	SU_09002
Carbon tube	*carbon tubes for tie rod*	Buy	2 x	SU_09003
Rod ends bearing, male r	*2 with a left-hand thread*	Buy	2 x	SU_09004
Rod ends bearing, male l	*2 with a right-hand thread*	Buy	2 x	SU_09005
Spacer 1	*M6 type 16 mm spacer, frame side*	Make	4 x	SU_09006
Spacer 2	*M6 type 25 mm spacer, wheel side*	Make	4 x	SU_09007

WT (Wheels, Wheel Bearings & Tires)	**Front Hubs**			WT_A0200
Front Hub	*Aluminium*	Make	2 x	WT_02001
Brake Bell	*Aluminium, junction between disc and hub*	Make	2 x	WT_02002
Front Bearing Washer	*outer side of the external bearing*	Make	2 x	WT_02003
Speed disc spacer 1	*to position WT_02005 (1mm thick)*	Make	6 x	WT_02004
Speed sensor disc	*iron teeth shape like*	Make	2 x	WT_02005
Speed disc spacer 2	*to position WT_02005 (2mm thick)*	Make	4 x	WT_02006
Front Bearing	*Wheel Bearing, Ball, Angular Contact*	Buy	4 x	WT_02007
Front Hub Lock	*SKF lock nut KM10*	Buy	2 x	WT_02008
Front Hub Locknut Washer	*SKF locknut washer MB10*	Buy	2 x	WT_02009
Rim Dowel	*hand trimmed*	Buy	8 x	WT_02010
Rim Nut		Buy	8 x	WT_02011

WT (Wheels, Wheel Bearings & Tires)	**Rear Hubs**			WT_A0300
Rear Hub	*Aluminium, flutting for tripod housing*	Make	2 x	WT_03001
Brake Bell	*Sold attached with the rear breake rotor*	Buy	2 x	WT_03002
Rear Bearing Washer	*outer side of the external bearing*	Make	2 x	WT_03003
Tripod Housing Spacer	*rear upright vehicle inner side*	Make	2 x	WT_03004
Speed disc spacer 1	*to position WT_03006 (1mm thick)*	Make	6 x	WT_03005
Speed sensor disc	*iron teeth shape like*	Make	2 x	WT_03006
Speed disc spacer 2	*to position WT_03006 (2mm thick)*	Make	4 x	WT_03007
Rear Bearing	*Wheel Bearing, Ball, Angular Contact*	Buy	4 x	WT_03008
Rim Dowel	*hand trimmed*	Buy	8 x	WT_03009
Rim Nut		Buy	8 x	WT_03010

WT (Wheels, Wheel Bearings & Tires) **Wheels**				WT_A0100
Oz Magnesium Rim	Buy		4 x	WT_01001
Hoosier 13", Dry	Buy		4 x	WT_01002

Overview Costed System: EN				
Engine & Drivetrain	**Cooling System**		655,08 €	EN_A0600
Engine & Drivetrain	**Drivetrain Assembly**		4.105,32 €	EN_A0700
Engine & Drivetrain	**Engine**		3.888,73 €	EN_A0100
Engine & Drivetrain	**Exhaust System**		2.006,59 €	EN_A0200
Engine & Drivetrain	**Fuel Tank – NOT THE HV-Battery**		282,22 €	EN_A0900
Engine & Drivetrain	**Intake System**		1.717,09 €	EN_A0300
Engine & Drivetrain	**Other: Fuel system**	*Fuel system parts + lines*	508,78 €	EN_A0500
Engine & Drivetrain	**Overflow Bottles**		97,91 €	EN_A0800
Engine & Drivetrain	**Throttle Body**		477,38 €	EN_A0400
SUM			**13.739,10 €**	