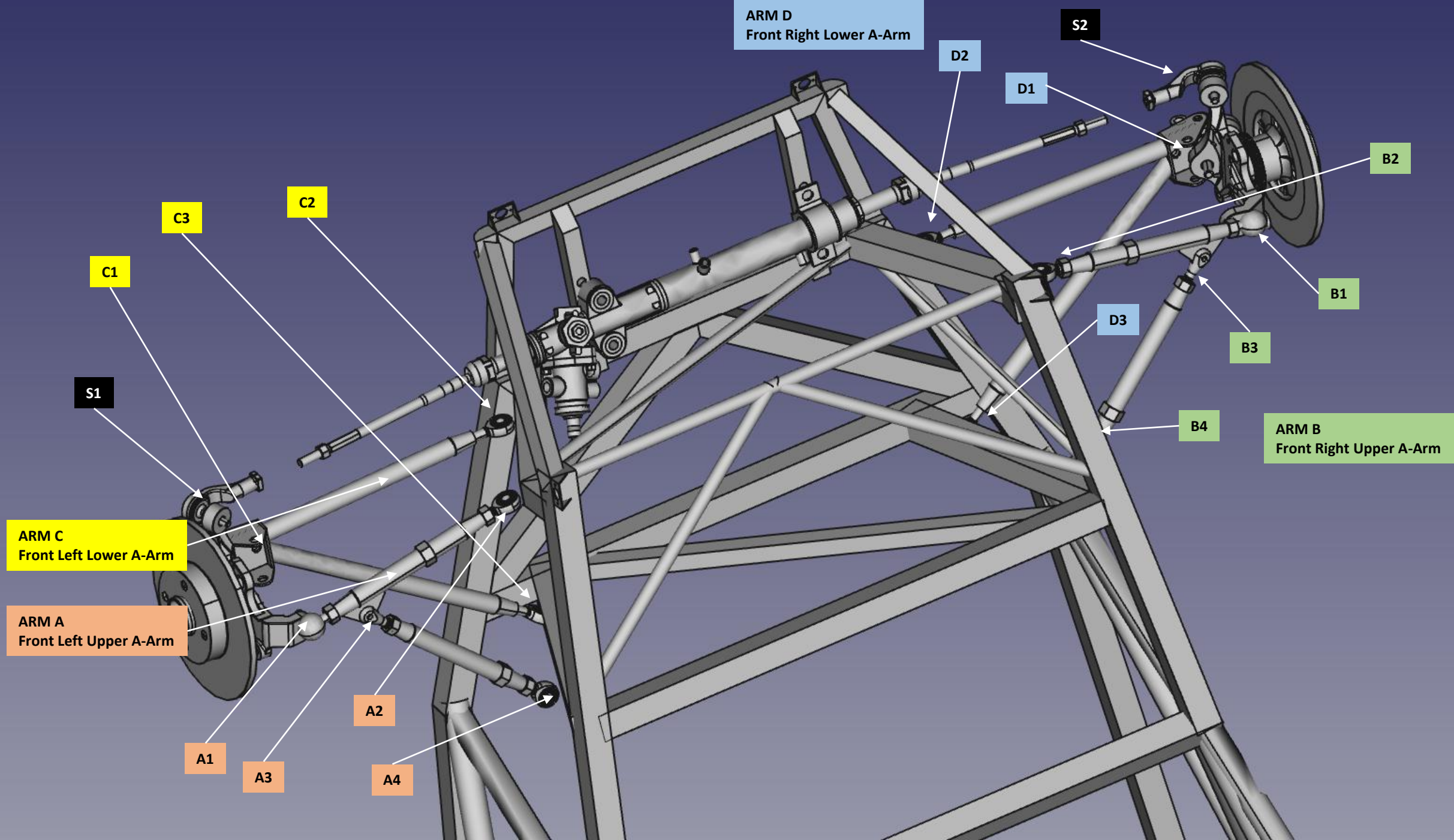
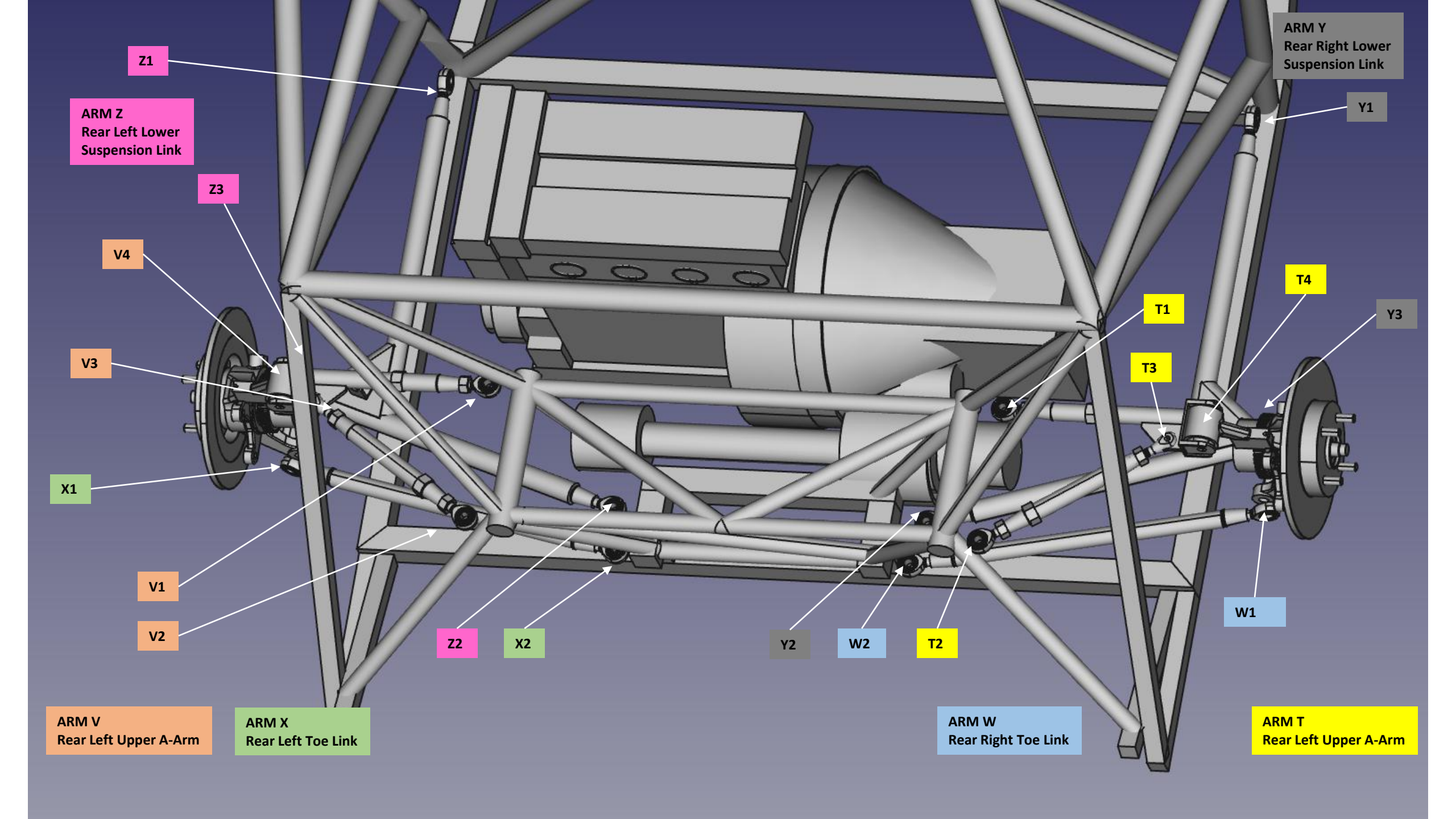


- Midlana Suspension Parts List
- Version 3
- Feb 13th, 2017

- In-bound suspension using ES2074R ball joints instead of spherical bearings on the front upper wishbones

- Changes:
 - Changed numbering scheme so we can easily see relation between joint, location and tube
 - Each ARM has a Ref/Name
 - Each Joint has a number on that arm
 - Joints can now be referenced by the ARM/JOINT pair (eg A1)
 - Front of the alphabet (A, B, C...) are the front of the chassis, back of the alphabet (Z, Y, X...) are the rear
 - Added book tube sizes for x-ref
 - Removed McGill Bungs as they don't fit!





ARM Y
Rear Right Lower
Suspension Link

Y1

ARM Z
Rear Left Lower
Suspension Link

Z1

Z3

V4

V3

X1

V1

V2

Z2

X2

Y2

W2

T2

W1

T1

T3

T4

Y3

ARM V
Rear Left Upper A-Arm

ARM X
Rear Left Toe Link

ARM W
Rear Right Toe Link

ARM T
Rear Left Upper A-Arm

Arm ID	Arm Description	Joint	Joint Location	Type	Ref.	Tube OD"	Tube Wall"	Tube ID"	Ball Dia	Bore	Thread Size	Thread	Joint Supplier	Joint Part No.	Joint Local	Joint Cost	Bung/Cup	Bung/Cup	Bung/Cup	Bung/Cup	Total Joint		
															Currency	Cost (Feb			Supplier	Part No.		Local	Cost USD
															2017) Ex.	=€0.9/GB	Supplier	Part No.	VAT	0.8)	VAT	0.8)	Cost
A	Front Left Upper A-Arm	1	Upper Ball Joint	Tie Rod	A1	1.00	0.083	0.834			M16x1.5	Right	Moog	ES-2074R	USD 18.78	\$18.78	Rally Corsa Shop	kie16x1.5ohex	EUR 18.78	\$20.87	\$39.65		
A	Front Left Upper A-Arm	2	Forward, Inner Joint	Rod-End	A2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
A	Front Left Upper A-Arm	3	Outer Joint	Clevis	A3	1.00	0.083	0.834		3/8"	1/2-20	Right	QA1	CR6-8	USD 5.09	\$5.09	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$8.74		
A	Front Left Upper A-Arm	4	Rear, Inner Joint	Rod-End	A4	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
B	Front Right Upper A-Arm	1	Upper Ball Joint	Tie Rod	B1	1.00	0.083	0.834			M16x1.5	Right	Moog	ES-2074R	USD 18.78	\$18.78	Rally Corsa Shop	kie16x1.5ohex	EUR 18.78	\$20.87	\$39.65		
B	Front Right Upper A-Arm	2	Forward, Inner Joint	Rod-End	B2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
B	Front Right Upper A-Arm	3	Outer Joint	Clevis	B3	1.00	0.083	0.834		3/8"	1/2-20	Right	QA1	CR6-8	USD 5.09	\$5.09	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$8.74		
B	Front Right Upper A-Arm	4	Rear, Inner Joint	Rod-End	B4	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
C	Front Left Lower A-Arm	1	Outer Joint	Ball Joint	C1								Moog	K9908	USD 74.64	\$74.64					\$74.64		
C	Front Left Lower A-Arm	2	Forward, Inner Joint	Rod-End	C2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
C	Front Left Lower A-Arm	3	Rear Inner Joint	Rod-End	C3	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
D	Front Right Lower A-Arm	1	Outer Joint	Ball Joint	D1								Moog	K9908	USD 74.64	\$74.64					\$74.64		
D	Front Right Lower A-Arm	2	Forward, Inner Joint	Rod-End	D2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
D	Front Right Lower A-Arm	3	Rear Inner Joint	Rod-End	D3	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
E	Front Left Tie Rod	1	Lower Joint	Rod-End	E1	1.00	0.065	0.87	5/8"	1/2"	1/2-20	Right	McGill	XMR8	GBP 8.09	\$10.11	MWC	WTF-8R-0.855	\$6.41	\$6.41	\$16.52		
E	Front Left Tie Rod	2	Upper Joint	Rod-End	E2	1.00	0.065	0.87	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.855	\$6.51	\$6.51	\$16.62		
F	Front Right Tie Rod	1	Lower Joint	Rod-End	F1	1.00	0.065	0.87	5/8"	1/2"	1/2-20	Right	McGill	XMR8	GBP 8.09	\$10.11	MWC	WTF-8R-0.855	\$6.41	\$6.41	\$16.52		
F	Front Right Tie Rod	2	Upper Joint	Rod-End	F2	1.00	0.065	0.87	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.855	\$6.51	\$6.51	\$16.62		
G	Left Rocker Arm	1	Inner	Spherical Bearing	G1		1/2"		1"				McGill	COM-8T	GBP 4.17	\$5.21	McGill	COM8CUP + COM8CIRC	GBP 4.37	\$5.46	\$10.68		
G	Left Rocker Arm	2	Outer	Spherical Bearing	G2		1/2"		1"				McGill	COM-8T	GBP 4.17	\$5.21	McGill	COM8CUP + COM8CIRC	GBP 4.37	\$5.46	\$10.68		
H	Right Rocker Arm	1	Inner	Spherical Bearing	H1		1/2"		1"				McGill	COM-8T	GBP 4.17	\$5.21	McGill	COM8CUP + COM8CIRC	GBP 4.37	\$5.46	\$10.68		
H	Right Rocker Arm	2	Outer	Spherical Bearing	H2		1/2"		1"				McGill	COM-8T	GBP 4.17	\$5.21	McGill	COM8CUP + COM8CIRC	GBP 4.37	\$5.46	\$10.68		
S	Left Steering Tie Rod	1	Outer Joint	Tie Rod	S1								Moog	ES-3191	USD 66.81	\$66.81					\$66.81		
S	Right Steering Tie Rod	2	Outer Joint	Tie Rod	S2								Moog	ES-3191	USD 66.81	\$66.81					\$66.81		
T	Rear Right Upper A-Arm	1	Forward, Inner Joint	Rod-End	T1	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Right	McGill	XMR8	GBP 8.09	\$10.11	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$13.76		
T	Rear Right Upper A-Arm	2	Rear Inner Joint	Rod-End	T2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
T	Rear Right Upper A-Arm	3	Outer Joint	Clevis	T3	1.00	0.083	0.834	5/8"	3/8"	1/2-20	Right	QA1	CR6-8	USD 5.09	\$5.09	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$8.74		
T	Rear Right Upper A-Arm	4	Upper Bearing	Spherical Bearing	T4		3/4"		1.5"				FK Bearings	AIN12	USD 9.87	\$9.87				\$0.00	\$9.87		
V	Rear Left Upper A-Arm	1	Forward, Inner Joint	Rod-End	V1	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Right	McGill	XMR8	GBP 8.09	\$10.11	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$13.76		
V	Rear Left Upper A-Arm	2	Rear Inner Joint	Rod-End	V2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
V	Rear Left Upper A-Arm	3	Outer Joint	Clevis	V3	1.00	0.083	0.834	5/8"	3/8"	1/2-20	Right	QA1	CR6-8	USD 5.09	\$5.09	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$8.74		
V	Rear Left Upper A-Arm	4	Upper Bearing	Spherical Bearing	V4		3/4"		1.5"				FK Bearings	AIN12	USD 9.87	\$9.87				\$0.00	\$9.87		
W	Rear Right Toe Link	1	Outer Joint	Rod-End	W1	1.00	0.083	0.834	5/8"	5/8"	5/8-18	Right	McGill	PCMR10T	GBP 8.37	\$10.46	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$14.11		
W	Rear Right Toe Link	2	Inner Joint	Rod-End	W2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
X	Rear Left Toe Link	1	Outer Joint	Rod-End	X1	1.00	0.083	0.834	5/8"	5/8"	5/8-18	Right	McGill	PCMR10T	GBP 8.37	\$10.46	MWC	WTF-8R-0.819	\$3.65	\$3.65	\$14.11		
X	Rear Left Toe Link	2	Inner Joint	Rod-End	X2	1.00	0.083	0.834	5/8"	1/2"	1/2-20	Left	McGill	XML8	GBP 8.09	\$10.11	MWC	WTF-8L-0.819	\$2.42	\$2.42	\$12.53		
Y	Rear Right Lower Suspension Link	1	Forward Joint	Rod-End	Y1	1.25	0.095	1.06	5/8"	5/8"	5/8-18	Right	McGill	XMR10	GBP 8.17	\$10.21	MWC	WTF-10R-1.045	\$5.00	\$5.00	\$15.21		
Y	Rear Right Lower Suspension Link	2	Rear, Inner Joint	Rod-End	Y2	1.25	0.095	1.06	5/8"	5/8"	5/8-18	Right	McGill	XMR10	GBP 8.17	\$10.21	MWC	WTF-10R-1.045	\$5.00	\$5.00	\$15.21		
Y	Rear Right Lower Suspension Link	3	Outer Joint	Spherical Bearing	Y3		5/8"		1 1/8"				McGill	COM-10T	GBP 4.74	\$5.93	McGill	COM10CUP + COM10CIRC	GBP 5.35	\$6.69	\$12.61		
Z	Rear Left Lower Suspension Link	1	Forward Joint	Rod-End	Z1	1.25	0.095	1.06	5/8"	5/8"	5/8-18	Right	McGill	XMR10	GBP 8.17	\$10.21	MWC	WTF-10R-1.045	\$5.00	\$5.00	\$15.21		
Z	Rear Left Lower Suspension Link	2	Rear, Inner Joint	Rod-End	Z2	1.25	0.095	1.06	5/8"	5/8"	5/8-18	Right	McGill	XMR10	GBP 8.17	\$10.21	MWC	WTF-10R-1.045	\$5.00	\$5.00	\$15.21		
Z	Rear Left Lower Suspension Link	3	Outer Joint	Spherical Bearing	Z3		5/8"		1 1/8"				McGill	COM-10T	GBP 4.74	\$5.93	McGill	COM10CUP + COM10CIRC	GBP 5.35	\$6.69	\$12.61		

How To Read The Following Tables

	Left		Left Total	Right		Right Total	(blank)				(blank) Total
	1			1		1.25	(blank)				
Row Labels	0.065	0.083		0.065	0.083	0.095	1/2"	3/4"	5/8"	(blank)	
Front Left Lower A-Arm		2	2							1	1
Forward, Inner Joint		1	1								
XML8-10		1	1								
WTF-8L-0.819		1	1								
Outer Joint										1	1
K9908										1	1
(blank)										1	1
Rear Inner Joint		1	1								
XML8-10		1	1								
WTF-8L-0.819		1	1								

- Front Left Lower A-Arm has three joints

- Forward Inner

- Has a Left Handed XML8-10 Rod End screwed into a WTF-8L-0.819 bung inserted into a 1" OD x 0.083" Wall Tube

- Outer

- Has a K9908. This does not directly connect to a tube. (It bolts in)

- Rear Inner

- Has a a Left Handed XML8-10 Rod End screwed into a WTF-8L-0.819 bung inserted into a 1" OD x 0.083" Wall Tube

	Left	Left Total		Right	Right Total		(blank)	(blank) Total	
	1			1	1.25		(blank)		(blank)
Row Labels	0.065	0.08		0.08			3/4	5/8	(blank)
Front Left Lower A-Arm		2	2				1/2"	"	"
Forward, Inner Joint		1	1						1
XML8		1	1						1
WTF-8L-0.819		1	1						1
Outer Joint									1
K9908									1
(blank)									1
Rear Inner Joint		1	1						1
XML8		1	1						1
WTF-8L-0.819		1	1						1
Front Left Tie Rod	1		1	1		1			
Lower Joint				1		1			
XMR8				1		1			
WTF-8R-0.855				1		1			
Upper Joint	1		1						
XML8	1		1						
WTF-8L-0.855	1		1						
Front Left Upper A-Arm		2	2		2	2			
Forward, Inner Joint		1	1						
XML8		1	1						
WTF-8L-0.819		1	1						
Outer Joint					1	1			
CR6-8					1	1			
WTF-8R-0.819					1	1			
Rear, Inner Joint		1	1						
XML8		1	1						
WTF-8L-0.819		1	1						
Upper Ball Joint					1	1			
ES-2074R					1	1			
kie16x1.5ohex					1	1			
Front Right Lower A-Arm		2	2						1
Forward, Inner Joint		1	1						1
XML8		1	1						1
WTF-8L-0.819		1	1						1
Outer Joint									1
K9908									1
(blank)									1
Rear Inner Joint		1	1						1
XML8		1	1						1
WTF-8L-0.819		1	1						1

	Left	Left Total		Right	Right Total		(blank)	(blank) Total	
	1			1	1.25		(blank)		(blank)
Row Labels	0.065	0.083		0.065	0.083	0.095	1/2"	3/4	5/8
Front Right Tie Rod	1		1	1		1			
Lower Joint				1		1			
XMR8				1		1			
WTF-8R-0.855				1		1			
Upper Joint	1		1						
XML8	1		1						
WTF-8L-0.855	1		1						
Front Right Upper A-Arm		2	2		2	2			
Forward, Inner Joint		1	1						
XML8		1	1						
WTF-8L-0.819		1	1						
Outer Joint					1	1			
CR6-8					1	1			
WTF-8R-0.819					1	1			
Rear, Inner Joint		1	1						
XML8		1	1						
WTF-8L-0.819		1	1						
Upper Ball Joint					1	1			
ES-2074R					1	1			
kie16x1.5ohex					1	1			
Left Rocker Arm							2		2
Inner							1		1
COM-8T							1		1
COM8CUP + COM8CIRC							1		1
Outer							1		1
COM-8T							1		1
COM8CUP + COM8CIRC							1		1
Left Steering Tie Rod									1
Outer Joint									1
ES-3191									1
(blank)									1
Rear Left Lower Suspension Link					2	2		1	1
Forward Joint					1	1			
XMR10					1	1			
WTF-10R-1.045					1	1			
Outer Joint								1	1
COM-10T								1	1
COM10CUP + COM10CIRC								1	1
Rear, Inner Joint					1	1			
XMR10					1	1			
WTF-10R-1.045					1	1			

Ordering and Costs (Feb 2017) \$818.10

Rods, Clevises and Bearings

Row Labels	Count of Joint Location	Sum of Joint Cost USD (\$1 =E0.9/GB 0.8)
FK Bearings	2	\$19.74
AIN12	2	\$19.74
McGill	30	\$276.50
COM-10T	2	\$11.85
COM-8T	4	\$20.85
XMR10	4	\$40.85
XML8	14	\$141.58
XMR8	4	\$40.45
PCMR10T	2	\$20.93
Moog	6	\$320.46
ES-2074R	2	\$37.56
ES-3191	2	\$133.62
K9908	2	\$149.28
QA1	4	\$20.36
CR6-8	4	\$20.36
Grand Total	42	\$637.06

Bungs and Cups

Row Labels	Count of Joint Supplier	Sum of Bung/Cup Cost USD (\$1 =E0.9/GB 0.8)
McGill	6	\$ 35.23
COM10CUP + COM10CIRC	2	\$ 13.38
COM8CUP + COM8CIRC	4	\$ 21.85
MWC	28	\$ 104.08
WTF-10R-1.045	4	\$ 20.00
WTF-8L-0.819	12	\$ 29.04
WTF-8L-0.855	2	\$ 13.02
WTF-8R-0.819	8	\$ 29.20
WTF-8R-0.855	2	\$ 12.82
Rally Corsa Shop	2	\$ 41.73
kie16x1.5ohex	2	\$ 41.73
(blank)	6	\$ -
(blank)	6	\$ -
Grand Total	42	\$ 181.04

Alternate Parts

- No attempt at an exhaustive list, just a few options

			MWC		FK		QA1		QA1	
McGill	XML8	\$ 8.50	MXML-8	\$ 5.65	JMXL8T	\$ 20.97	HML8-10T	\$ 24.41	XML8	\$ 14.74
McGill	XMR8	\$ 8.50	MXM-8	\$ 7.69	JMX8T	\$ 20.97	HMR8-10T	\$ 24.41	XMR8	\$ 14.74
McGill	XMR10	\$ 10.21	MXM-10	\$ 8.45	JMX10T	\$ 26.96	HMR10T	\$ 28.14	XMR10	\$ 19.26
QA1	CR6-8	\$ 5.09	PMC-8-6	\$ 8.45	CV-5	\$ 7.97				
McGill	COM-8T	\$ 5.21	COMT-08	\$ 4.55	COM8T	\$ 5.97			COM8T	\$ 7.05
McGill	COM-10T	\$ 4.74	COMT-10	\$ 7.88	COM10TF1	\$ 6.97			COM10T	\$ 8.11
McGill	PCMR10T	\$ 8.37	NA		HJMX10T	\$ 48.97			PCYMR10T	\$ 15.84