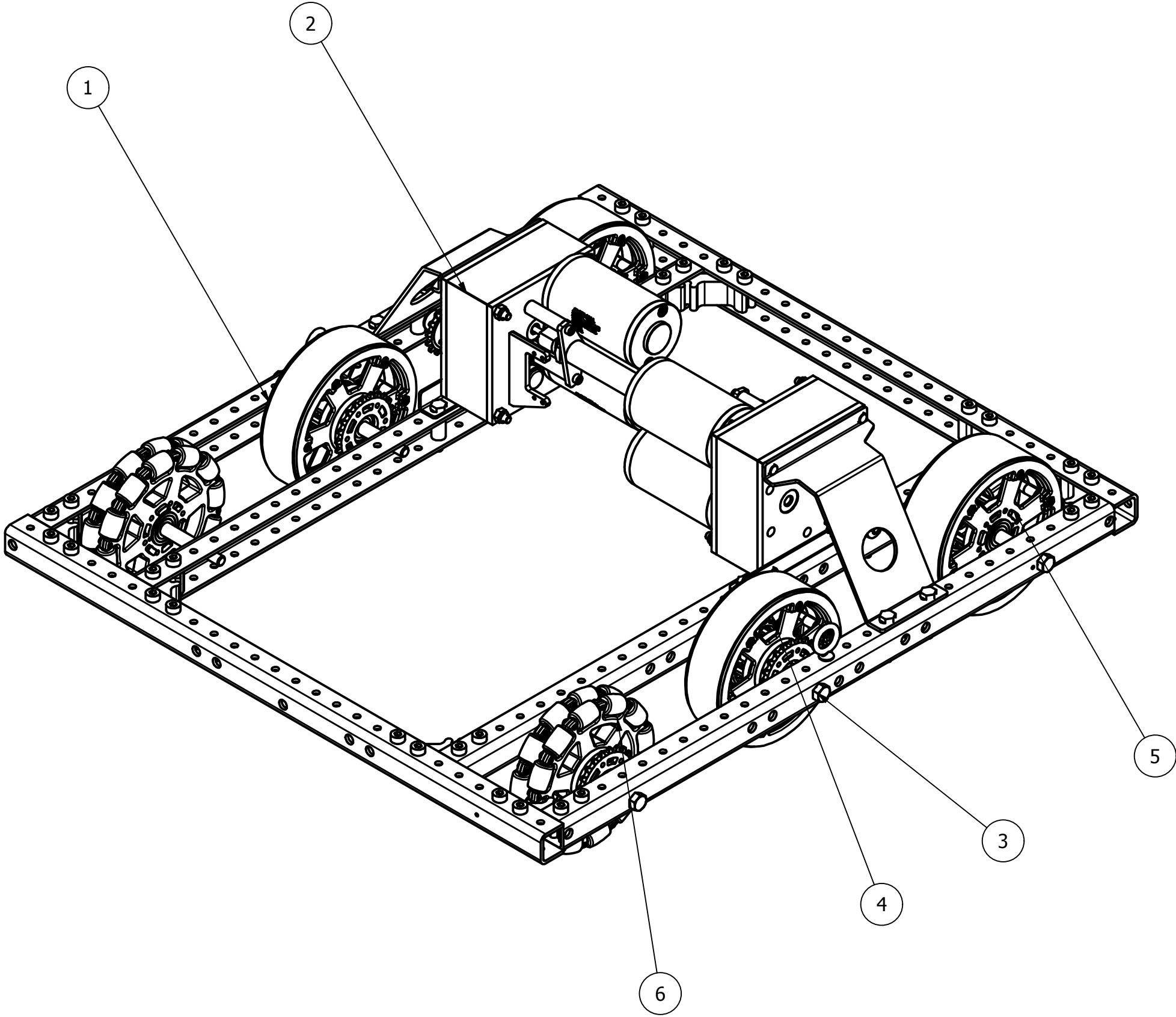
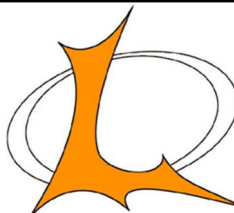


Drive train Assy

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	Chassis	
2	2	Drive Motor and Gearbox	
3	6	ANSI/ASME B18.2.1 - 3/8-16 UNC - 6	Hex Bolt - UNC (Regular Thread - Inch)
4	2	Plaction Wheel 1.5	
5	2	Plaction Wheel 2	
6	2	Omni Wheel	
7	2	Belay Fastener Set	
8	4	Drive Train Fastener Set	
9	4	Drive Train Fastener Set 2	

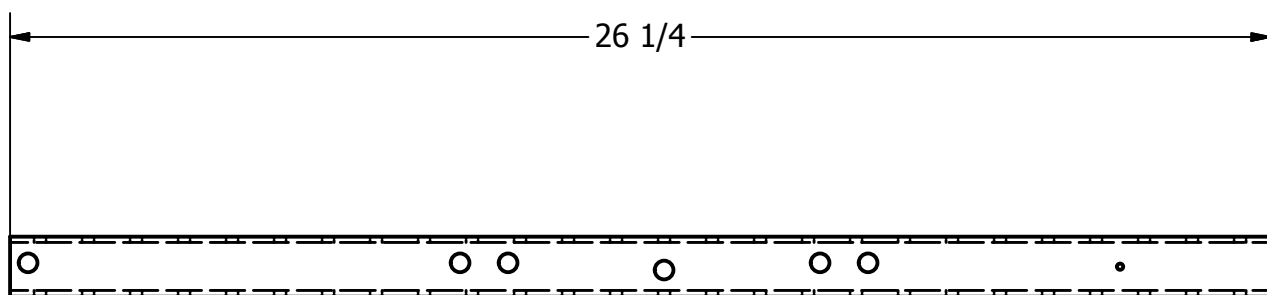
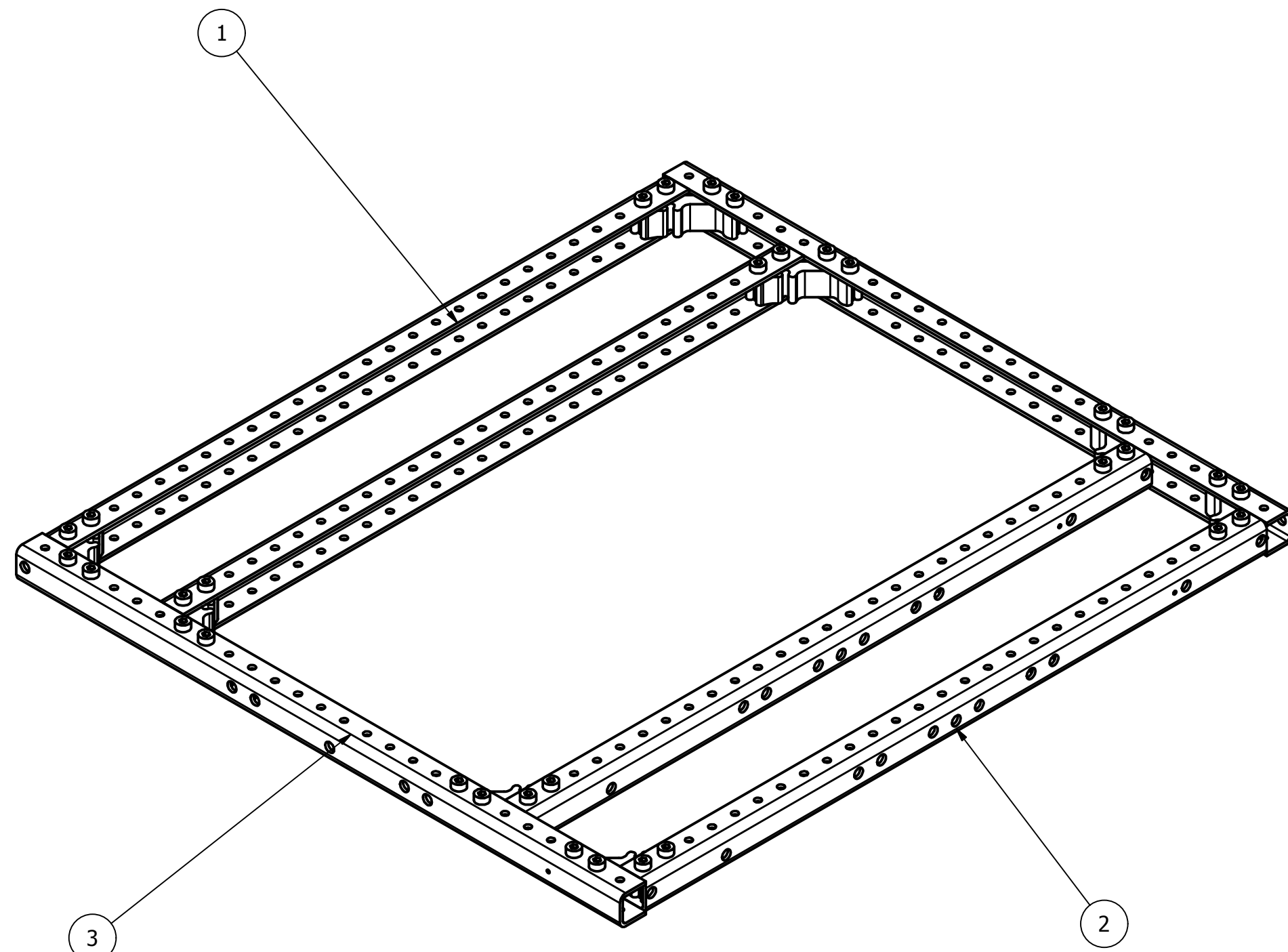


- NOTES:
- 1) COMPONENT OR ASSY MAY NOT REPRESENT ACTUAL SCALE CALLED OUT IN VIEW
 - 2) UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES
 - 3) SUGGESTED MATERIAL TO USE: (IE. 3X5 RECTANGULAR CHANNEL, 2" L CHANNEL)

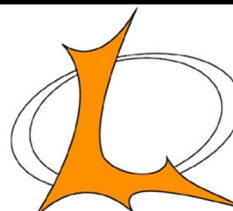
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DESIGN STUDENT LEAD	DESIGN MENTOR LEAD	[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013				
SUB GROUP STUDENT LEAD	SUB GROUP MENTOR LEAD	[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013		DRAWING STATUS Pending		REV 1
STUDENT BUILD LEADER	LEAD MENTOR	[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013				
TEAM LEADER MR. OBSNIUK				DESCRIPTION Drive train chassis		SIZE C
WEIGHT N/A	ESTIMATED COST:					
MATERIAL	DRAWING CREATED BY: Paul Kohls			FILENAME: Drive Train2.idw		
				SHEET 1 OF 8		

Chassis Assy

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	Chassis long bar	
2	2	Chassis long bar 2	
3	2	Chassis short rail	
4	32	Chassis Fastener Set	

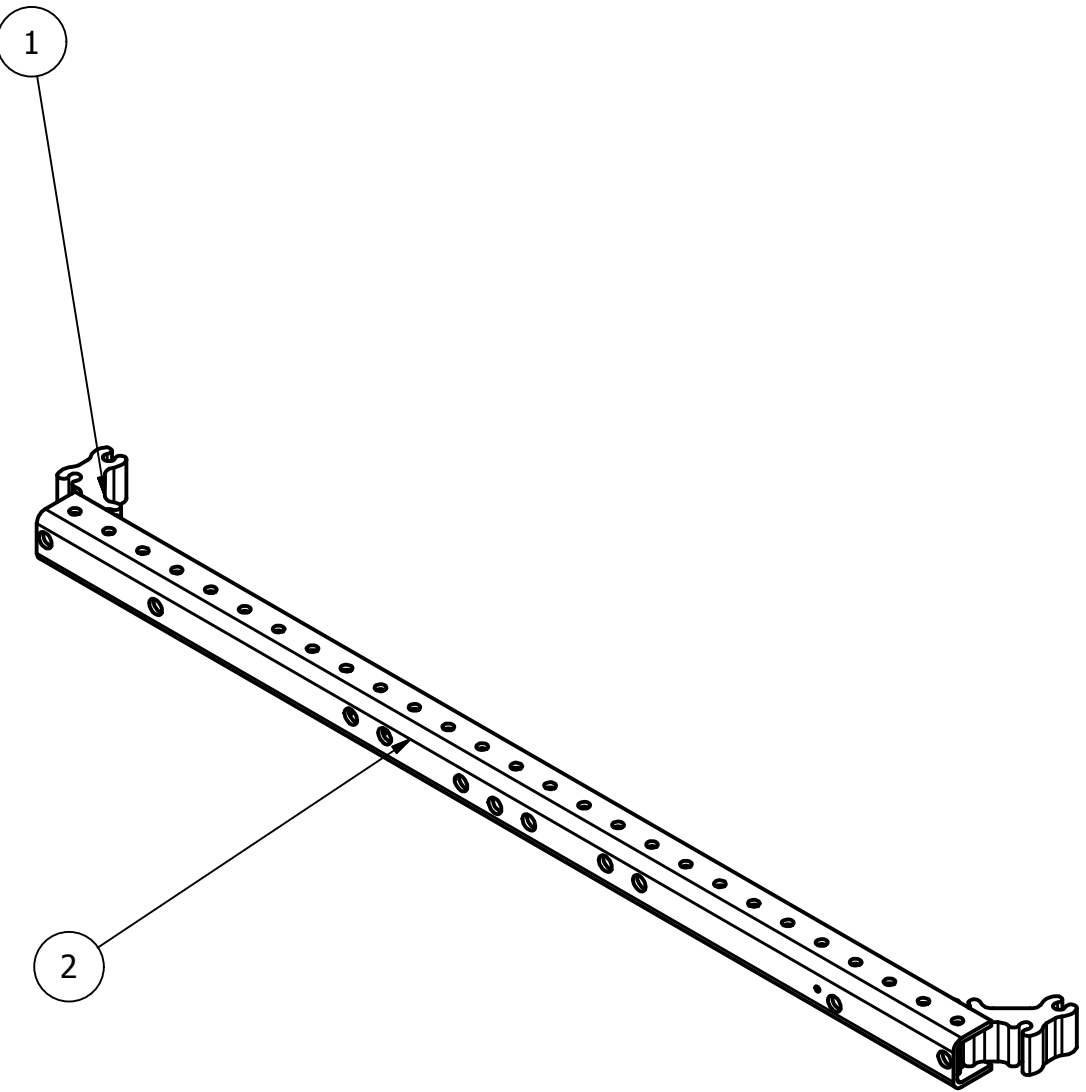
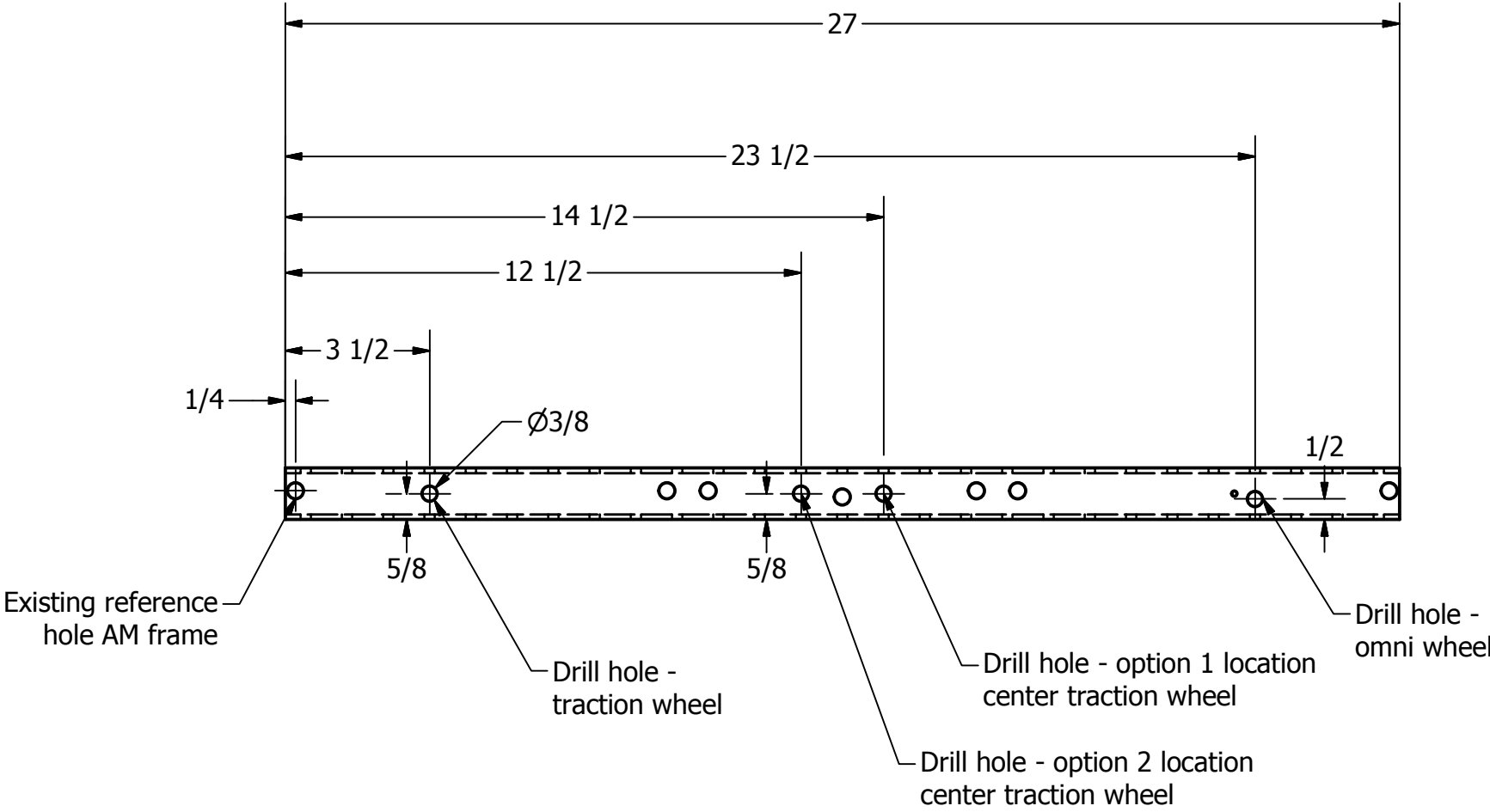


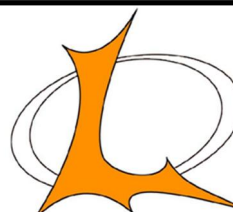
Chassis short rail

DESIGN STATE: PRODUCTION		3D STATUS:		<div>2013</div> <div>LIGHTNING ROBOTICS</div> <div>(2013 released title block R1)</div>		
DESIGN STUDENT LEAD	DESIGN MENTOR LEAD	[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013				
SUB GROUP STUDENT LEAD	SUB GROUP MENTOR LEAD	[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013		<div>DRAWING STATUS</div> <div>Pending</div>		
STUDENT BUILD LEADER	LEAD MENTOR	[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013				
TEAM LEADER MR. OBSNIUK				<div>DESCRIPTION</div> <div>Drive train chassis</div> <div>REV 1</div>		
WEIGHT N/A	ESTIMATED COST:					
MATERIAL	DRAWING CREATED BY: Paul Kohls			SIZE C	SHEET 2 OF 8	FILENAME: Drive Train2.idw

Chassis long rail 1

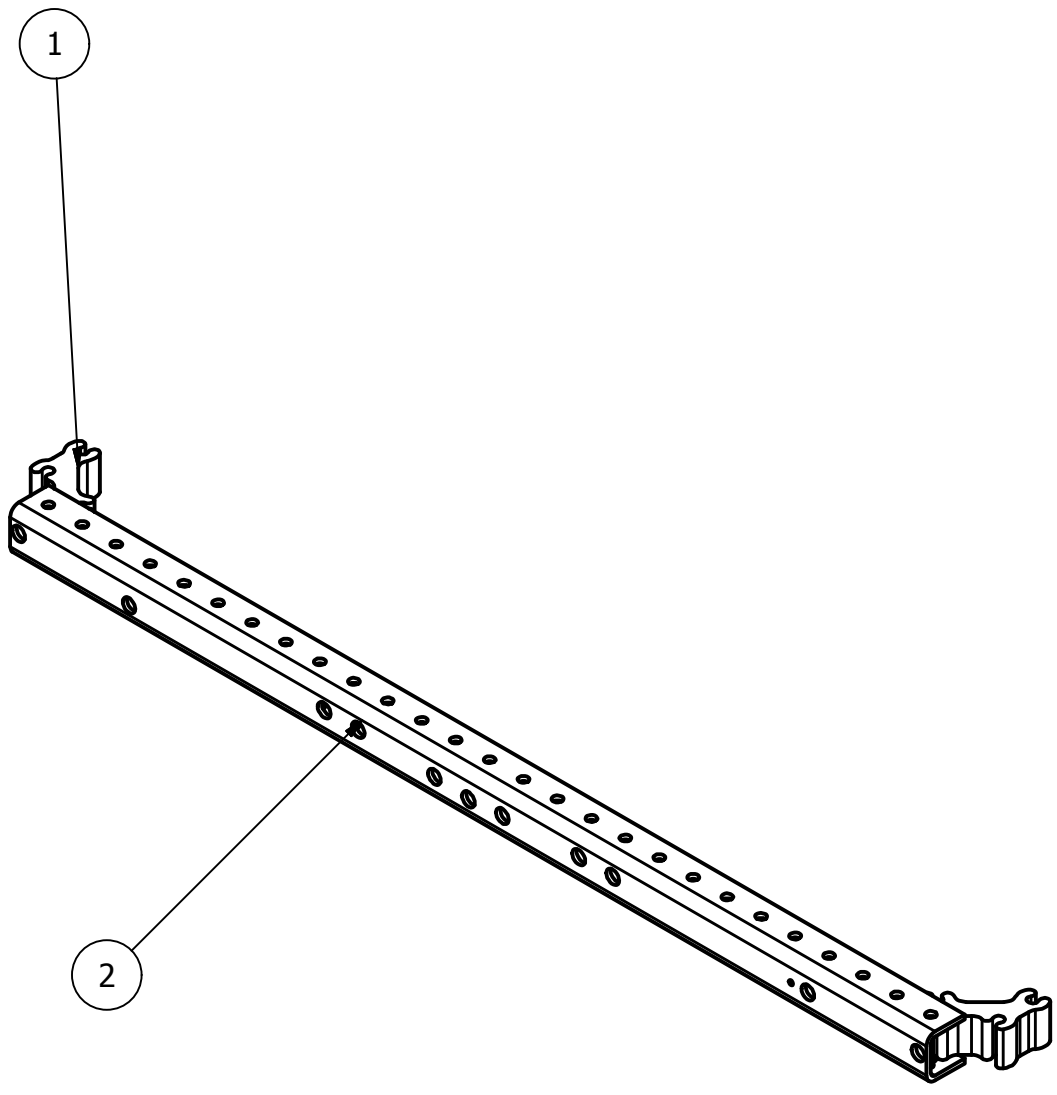
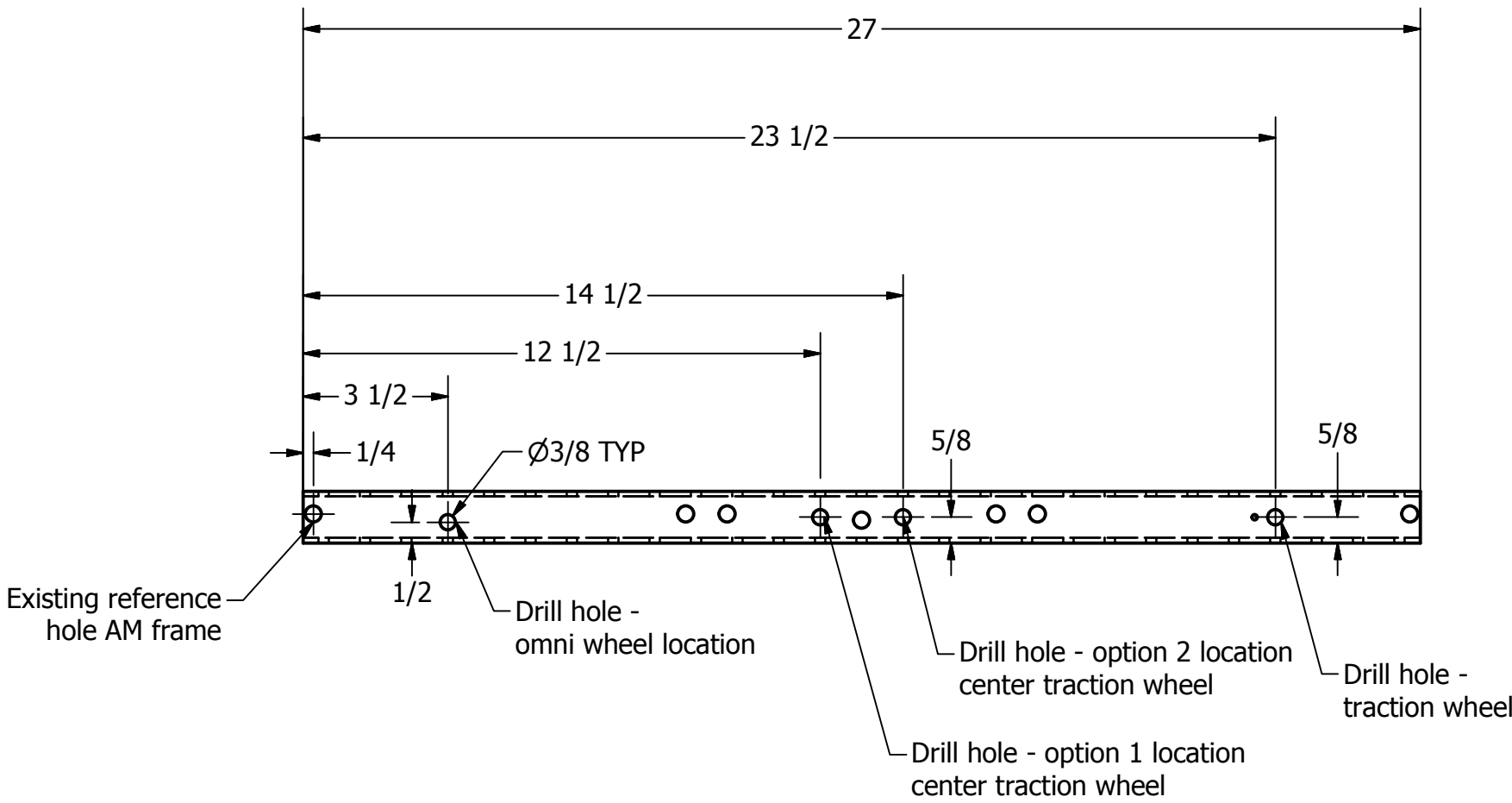
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	am-0212	Corner Connect piece for use in C-Base Drive Chassis Eight of these pieces come standard in the C-Base.
2	1	Chassis long rail	

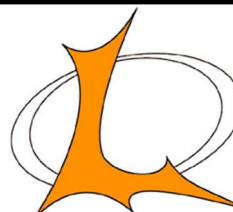


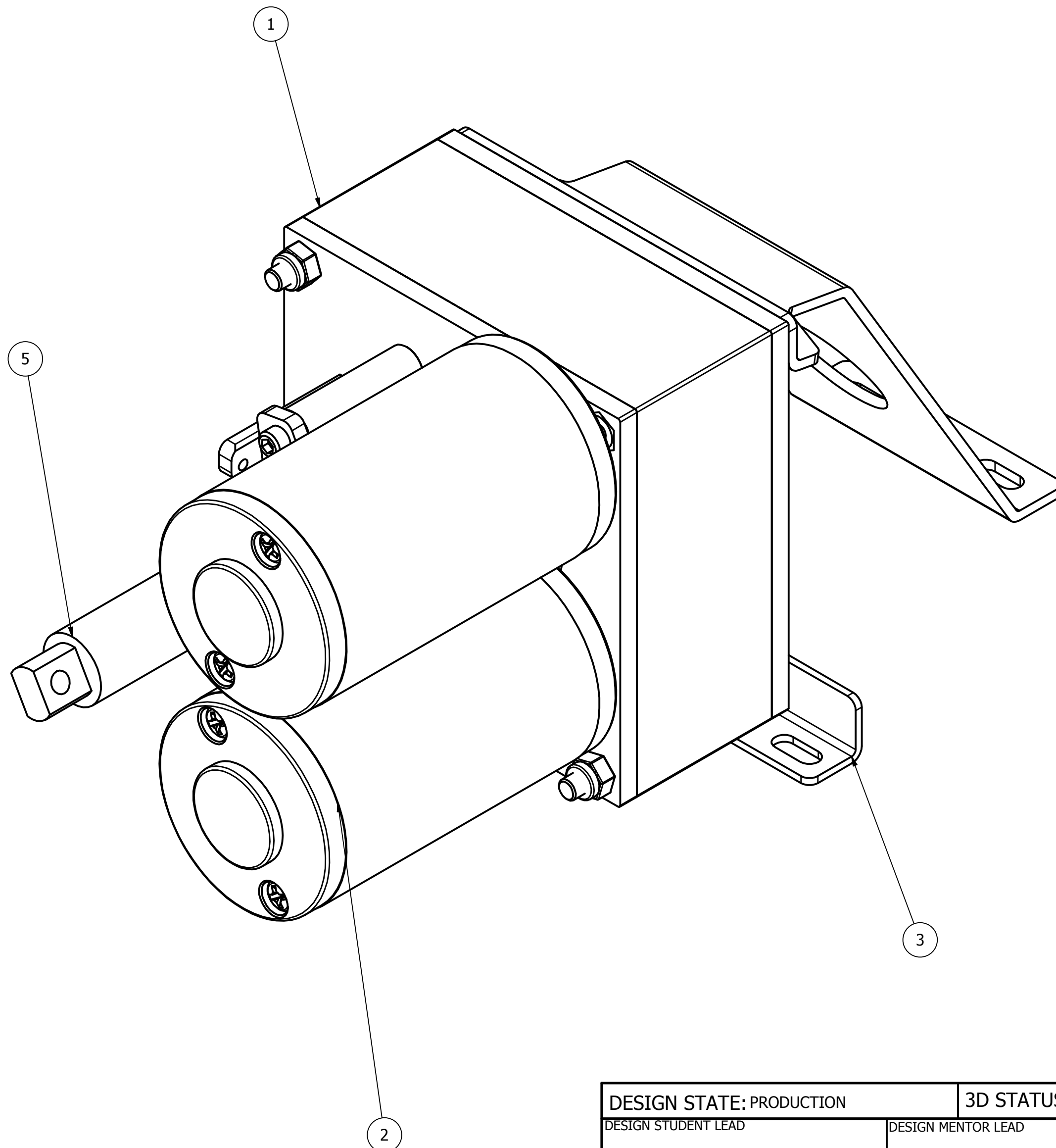
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DESIGN STUDENT LEAD		DESIGN MENTOR LEAD					[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013
SUB GROUP STUDENT LEAD		SUB GROUP MENTOR LEAD		[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013			
STUDENT BUILD LEADER		LEAD MENTOR		[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013			
TEAM LEADER		MR. OBSNIUK				DRAWING STATUS	
						Pending	
WEIGHT		N/A		ESTIMATED COST:		DESCRIPTION	
						Drive train chassis	
MATERIAL		DRAWING CREATED BY:		Paul Kohls		REV	
						1	
						SIZE	
						C	
						SHEET 3 OF 8	
						FILENAME:	
						Drive Train2.idw	

Chassis long rail 2

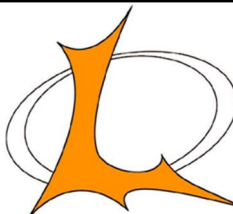
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	am-0212	Corner Connect piece for use in C-Base Drive Chassis Eight of these pieces come standard in the C-Base.
2	1	Chassis long rail 2	

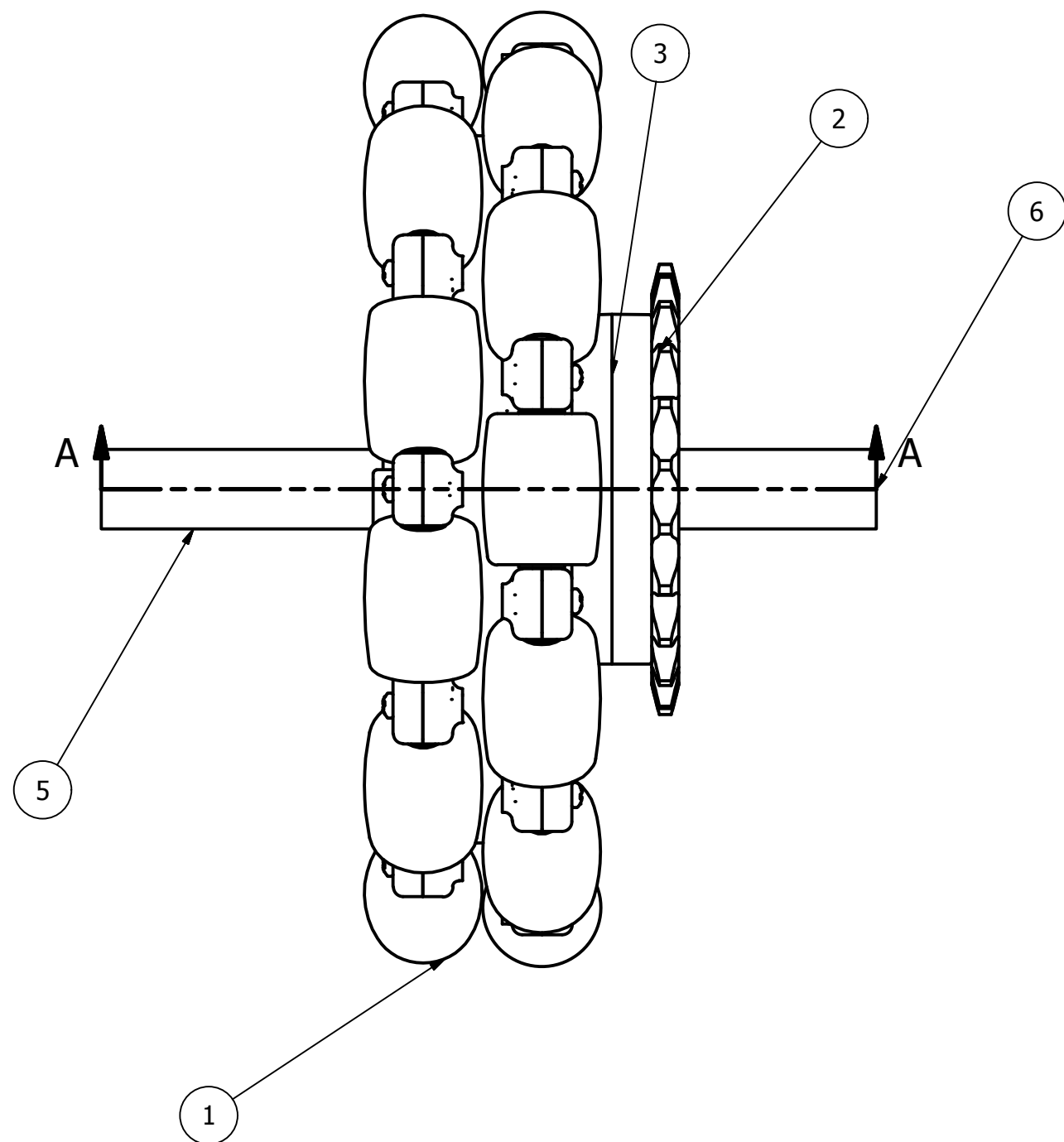


DESIGN STATE: PRODUCTION			3D STATUS:			<div>2013</div> <div>LIGHTNING ROBOTICS</div> <div>(2013 released title block R1)</div>		
DESIGN STUDENT LEAD		DESIGN MENTOR LEAD		[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013				
SUB GROUP STUDENT LEAD		SUB GROUP MENTOR LEAD		[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013				
STUDENT BUILD LEADER		LEAD MENTOR		[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013				
TEAM LEADER		MR. OBSNIUK						
WEIGHT		ESTIMATED COST:		DRAWING STATUS				
N/A				Pending				
MATERIAL		DRAWING CREATED BY:		DESCRIPTION				REV
		Paul Kohls		Drive train chassis				1
				SIZE		FILENAME:		
				C		Drive Train2.idw		
				SHEET 4 OF 8				

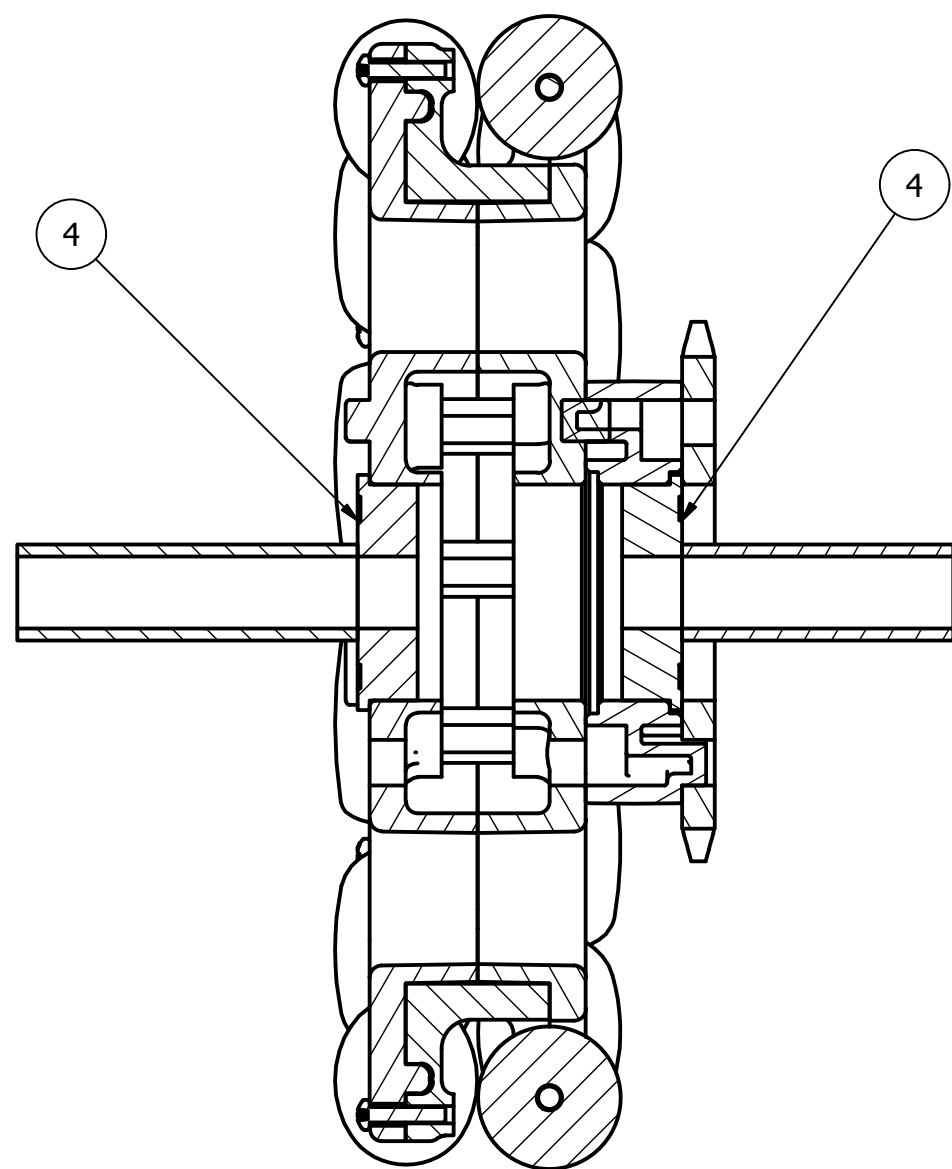
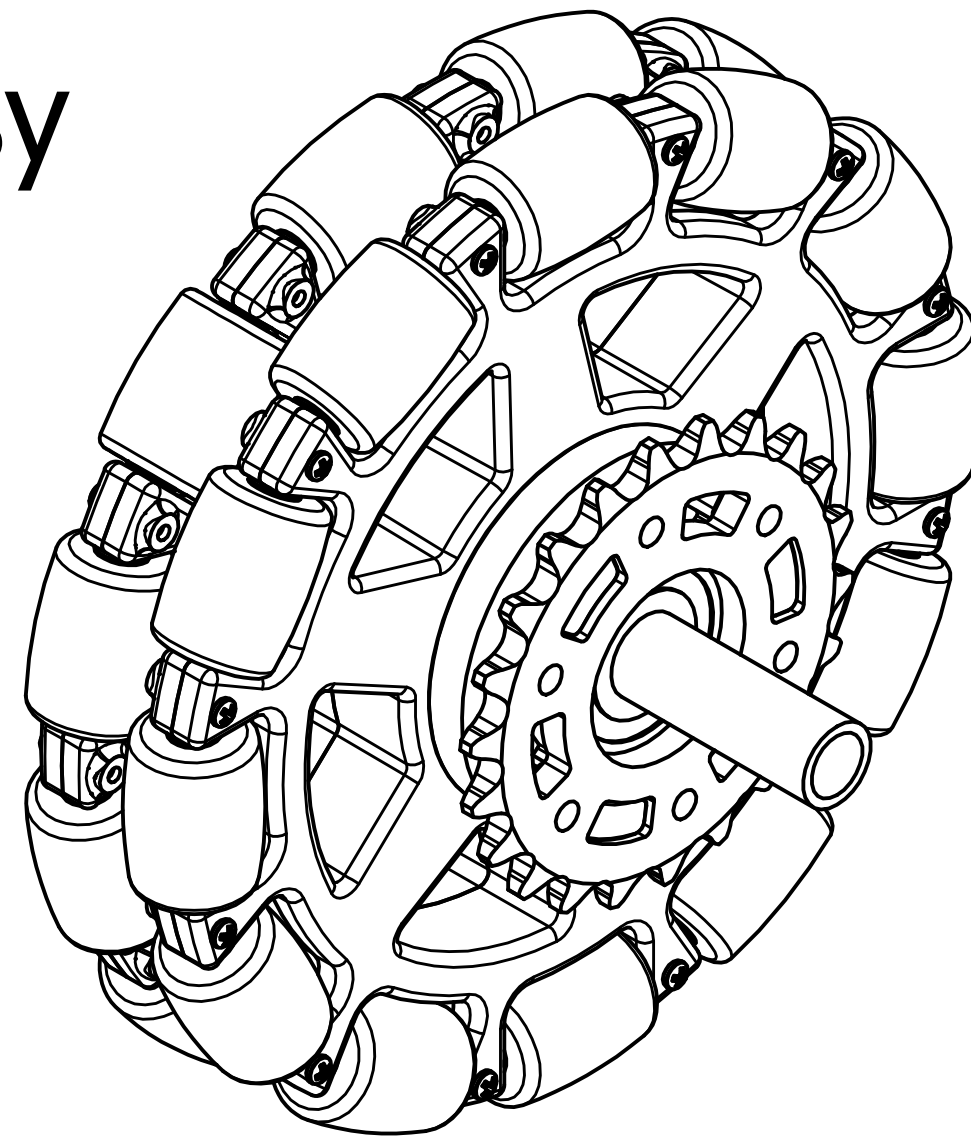


PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	super-shifter-asm-penumati c-hex	
2	2	217-2000	CIM Motor
3	2	1	
4	1	217-2656.20121204	
5	1	super shifter pneumatic	
6	1	Motor Sprocket Spacer	
7	1	Spacer - Motor Sprocket outside	
8	1	am-1027	Plain Washer (Inch)Type A and B
9	1	am-1266	Plain Indented Hex Washer Head Tapping Screw - Type C - Inch

DESIGN STATE: PRODUCTION		3D STATUS:		<div>2013</div> <div>LIGHTNING ROBOTICS</div> <div>(2013 released title block R1)</div>		<div></div>	
DESIGN STUDENT LEAD		DESIGN MENTOR LEAD					
SUB GROUP STUDENT LEAD		SUB GROUP MENTOR LEAD		DRAWING STATUS			
STUDENT BUILD LEADER		LEAD MENTOR		Pending			
TEAM LEADER		MR. OBSNIUK		DESCRIPTION			
WEIGHT		N/A		ESTIMATED COST:		Drive train chassis	
MATERIAL		DRAWING CREATED BY:		Paul Kohls		REV	
						1	
						SIZE	
						C	
						SHEET 5 OF 8	
						FILENAME:	
						Drive Train2.idw	

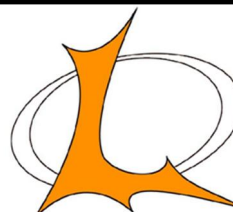


Omni wheel assy

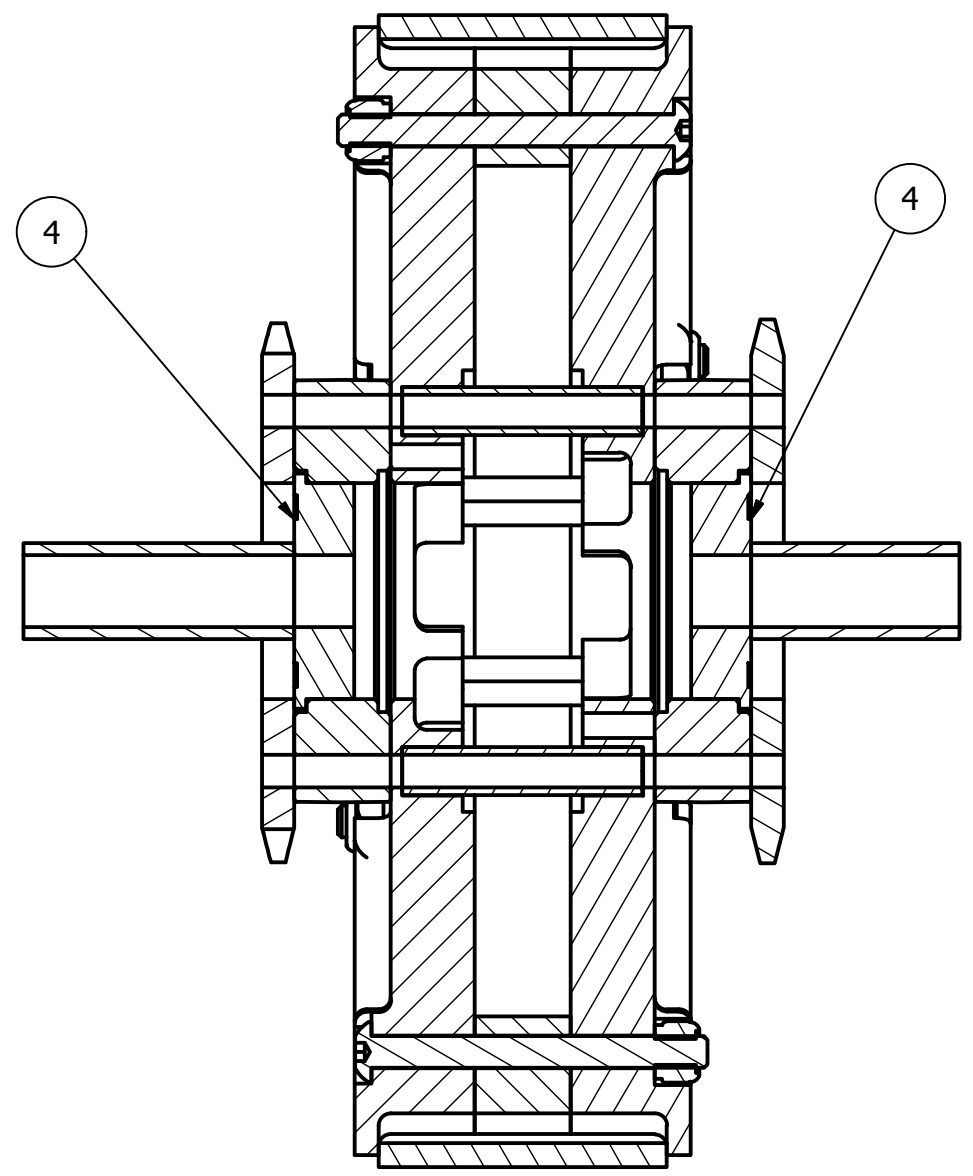
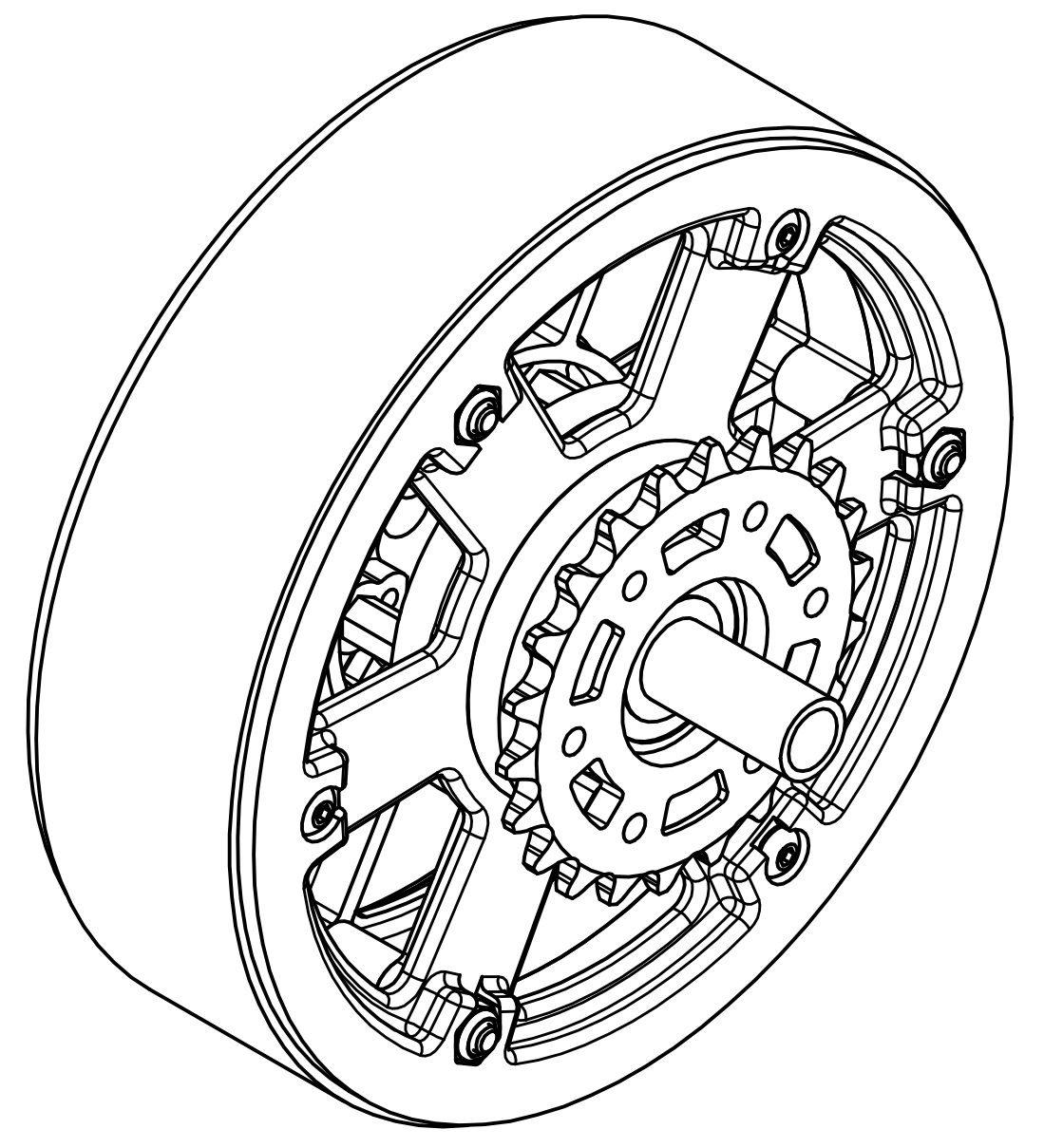
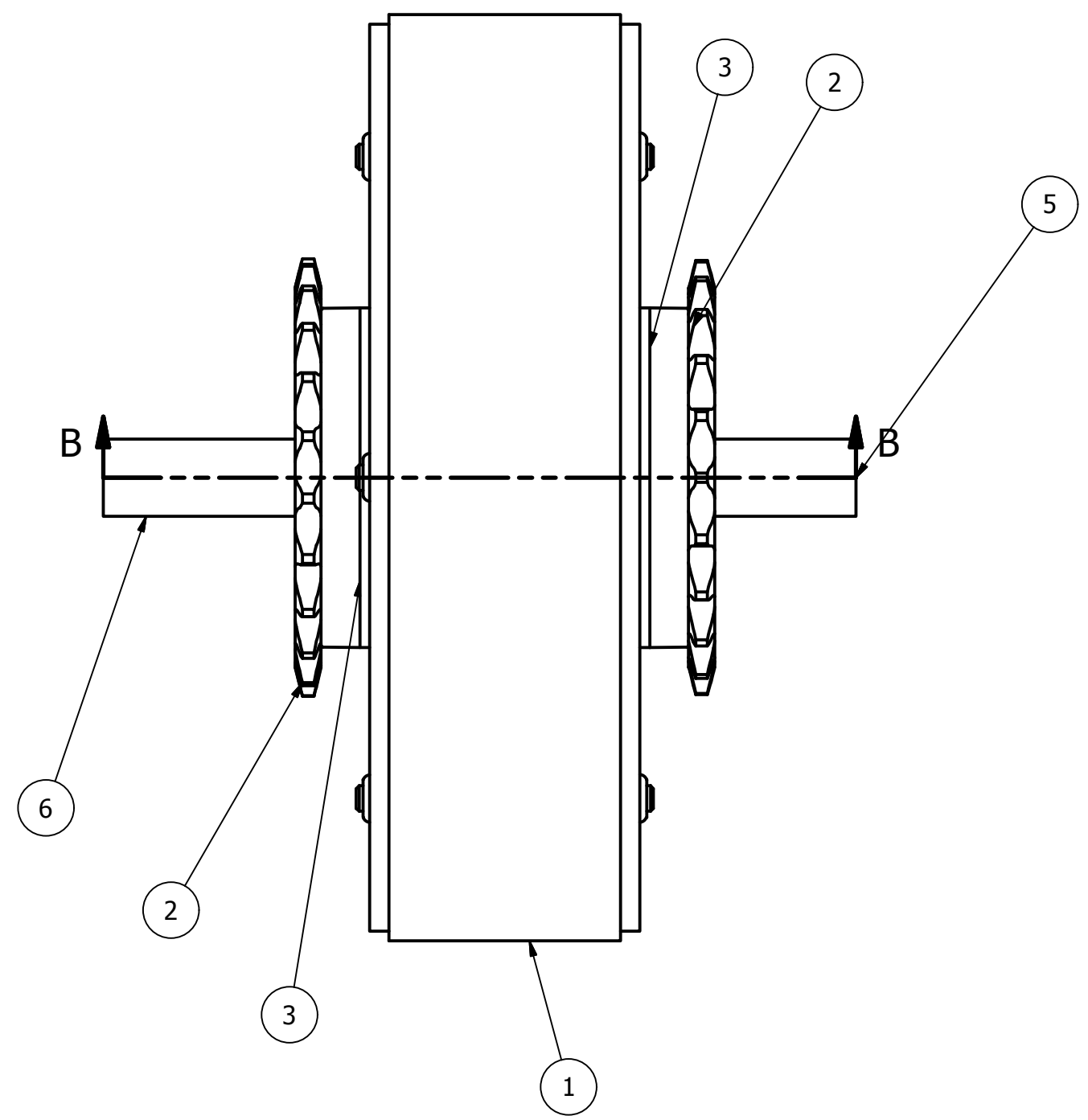


SECTION A-A
SCALE 1 : 1

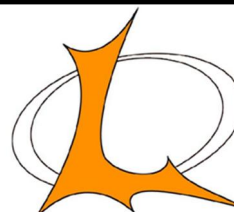
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	217-2585.20121203	
2	1	217-2688.20121204	
3	1	217-2591.20121203	
4	2	217-2732.20121205	
5	1	Omni inside	
6	1	Omni outside spacer	

DESIGN STATE: PRODUCTION			3D STATUS:			<div>2013</div> <div>LIGHTNING ROBOTICS</div> <div>(2013 released title block R1)</div>											
DESIGN STUDENT LEAD		DESIGN MENTOR LEAD		[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013													
SUB GROUP STUDENT LEAD		SUB GROUP MENTOR LEAD		[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013		<div>DRAWING STATUS</div> <div>Pending</div>											
STUDENT BUILD LEADER		LEAD MENTOR		[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013													
TEAM LEADER					MR. OBSNIUK		<div>DESCRIPTION</div> <div>Drive train chassis</div> <div>REV 1</div>										
WEIGHT		N/A		ESTIMATED COST:													
MATERIAL		DRAWING CREATED BY:				Paul Kohls		SIZE		C		FILENAME:		SHEET 6 OF 8		Drive Train2.idw	

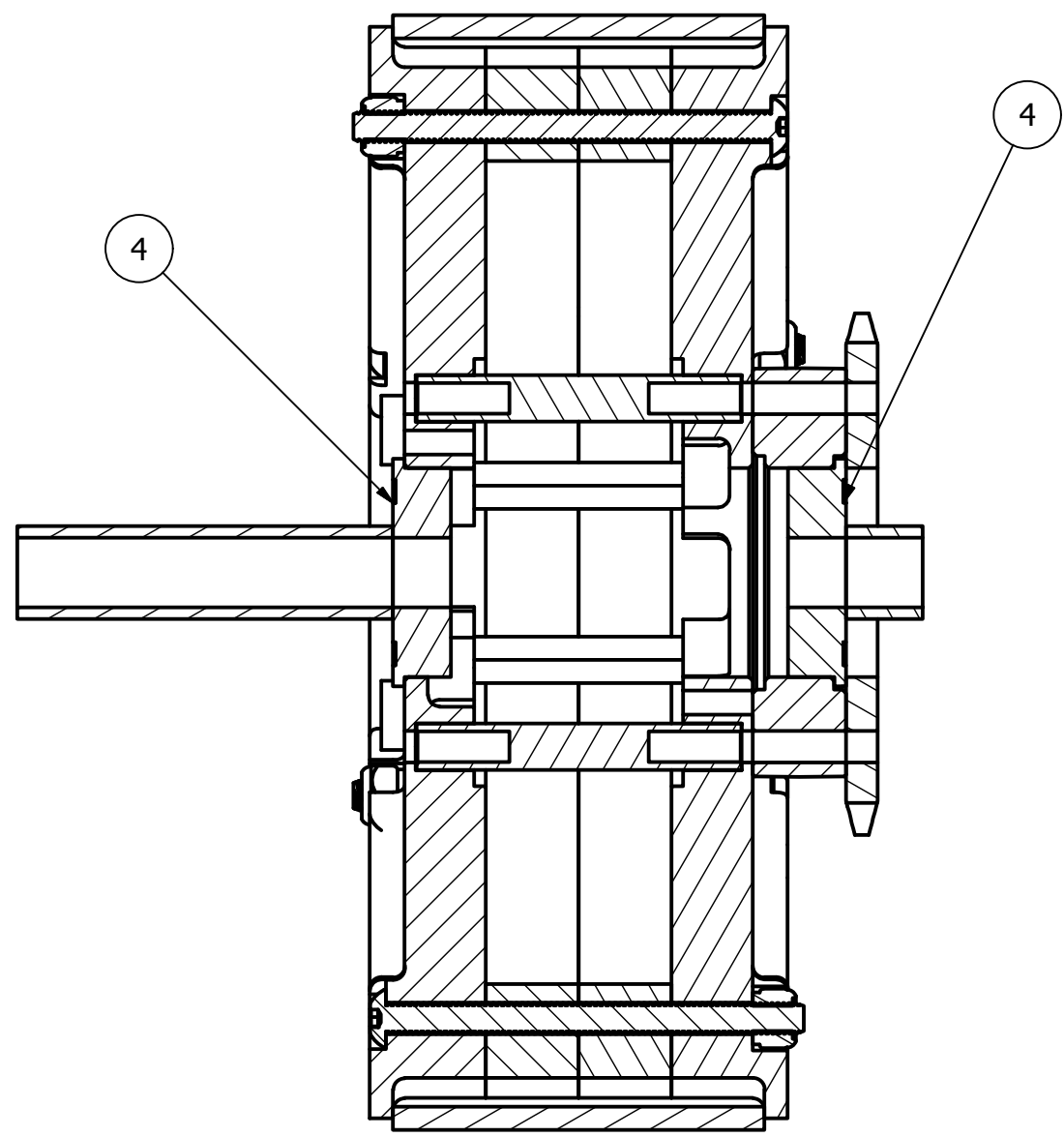
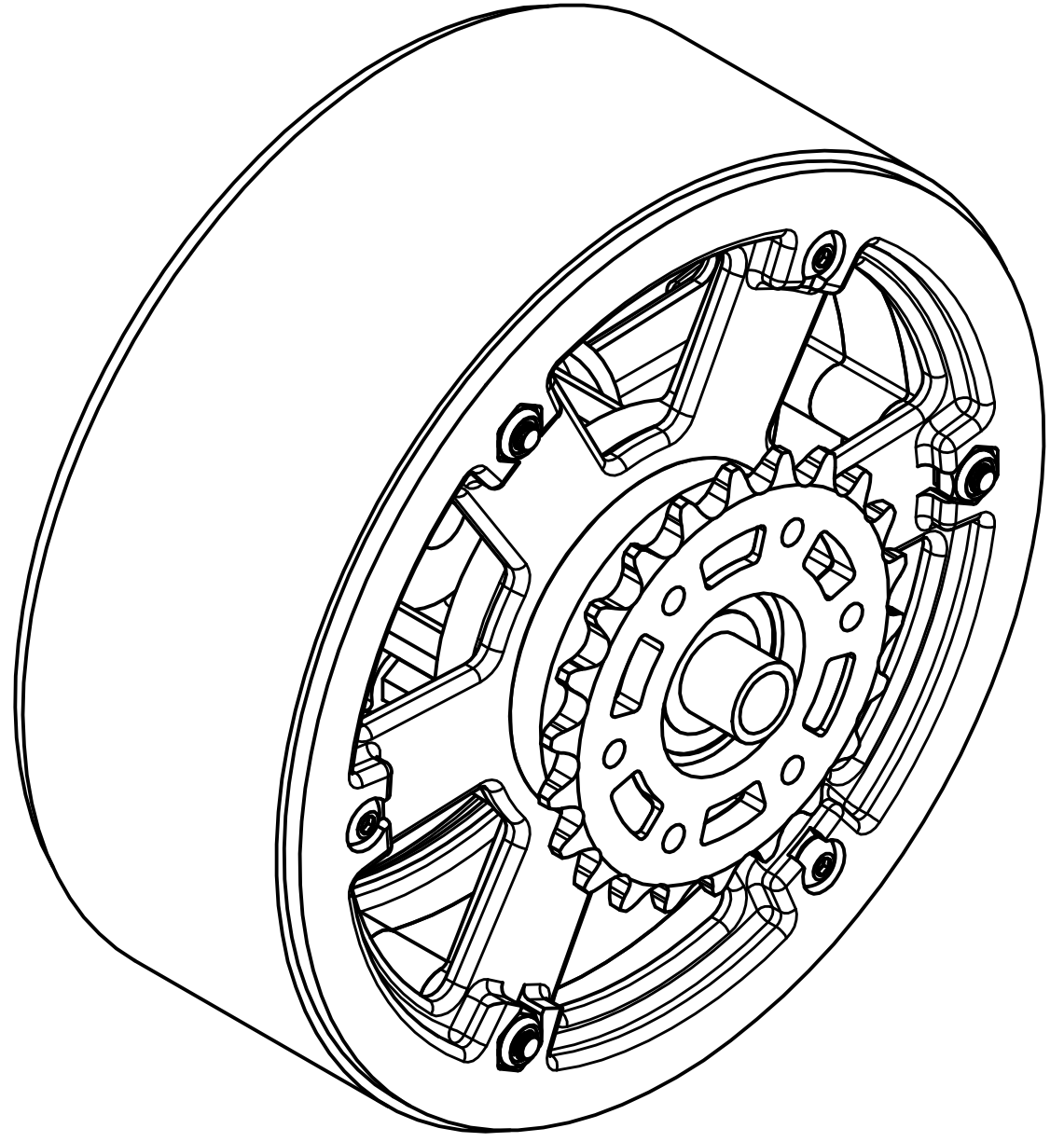
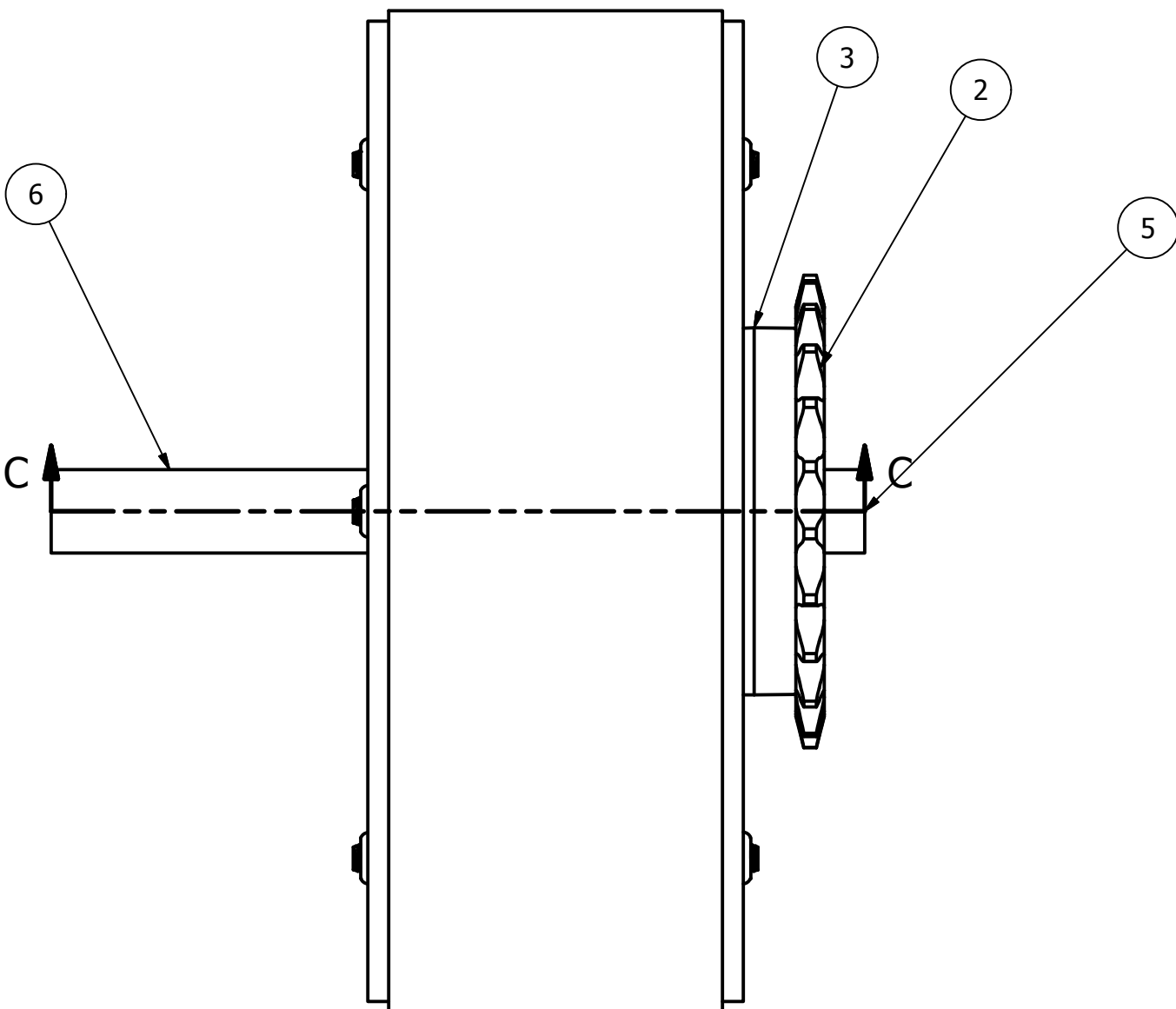
Center Traction Wheel Assy



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	217-2589 1.5in.20121203	
2	2	217-2688.20121204	
3	2	217-2591.20121203	
4	2	217-2732.20121205	
5	1	Center inside	
6	1	Center outside	

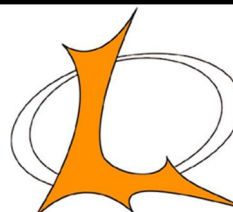
DESIGN STATE: PRODUCTION		3D STATUS:		<div>2013</div> <div>LIGHTNING ROBOTICS</div> <div>(2013 released title block R1)</div>				
DESIGN STUDENT LEAD	DESIGN MENTOR LEAD	[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013						
SUB GROUP STUDENT LEAD	SUB GROUP MENTOR LEAD	[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013		DRAWING STATUS <div>Pending</div>				
STUDENT BUILD LEADER	LEAD MENTOR	[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013						
TEAM LEADER MR. OBSNIUK				DESCRIPTION <div>Drive train chassis</div>				REV 1
WEIGHT N/A	ESTIMATED COST:							
MATERIAL	DRAWING CREATED BY: Paul Kohls			SIZE C		FILENAME: <div>Drive Train2.idw</div>		
				SHEET 7 OF 8				

Rear Traction Wheel Assy



SECTION C-C
SCALE 1 : 1

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	217-2589.20121203	
2	1	217-2688.20121204	
3	1	217-2591.20121203	
4	2	217-2732.20121205	
5	1	Rear inside	
6	1	Rear outside	

DESIGN STATE: PRODUCTION		3D STATUS:		<div>2013</div> <div>LIGHTNING ROBOTICS</div> <div>(2013 released title block R1)</div>			
DESIGN STUDENT LEAD		DESIGN MENTOR LEAD					[DESIGN STUDENT LEADER / DESIGN MENTOR LEAD] 1/15/2013
SUB GROUP STUDENT LEAD		SUB GROUP MENTOR LEAD		[SUBGROUP STUDENT LEADER / SUBGROUP MENTOR LEAD] 1/15/2013		DRAWING STATUS <div>Pending</div>	
STUDENT BUILD LEADER		LEAD MENTOR		[BUILDING SUPERVISOR / LEAD MENTOR] 1/15/2013			
TEAM LEADER		MR. OBSNIUK					
WEIGHT		N/A		ESTIMATED COST:		DESCRIPTION <div>Drive train chassis</div>	REV 1
MATERIAL		DRAWING CREATED BY:		Paul Kohls			
				SIZE C		FILENAME: SHEET 8 OF 8 Drive Train2.idw	