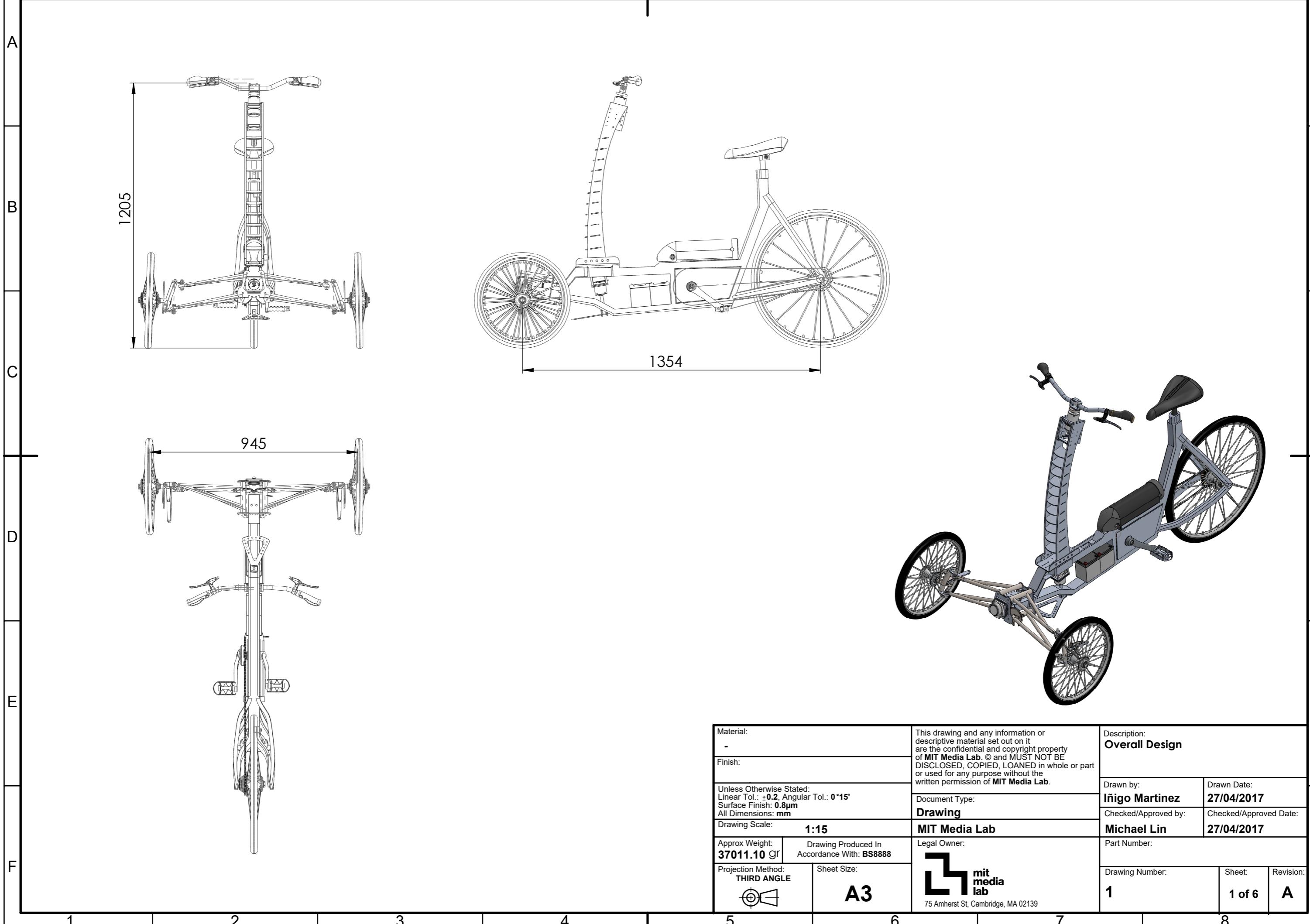
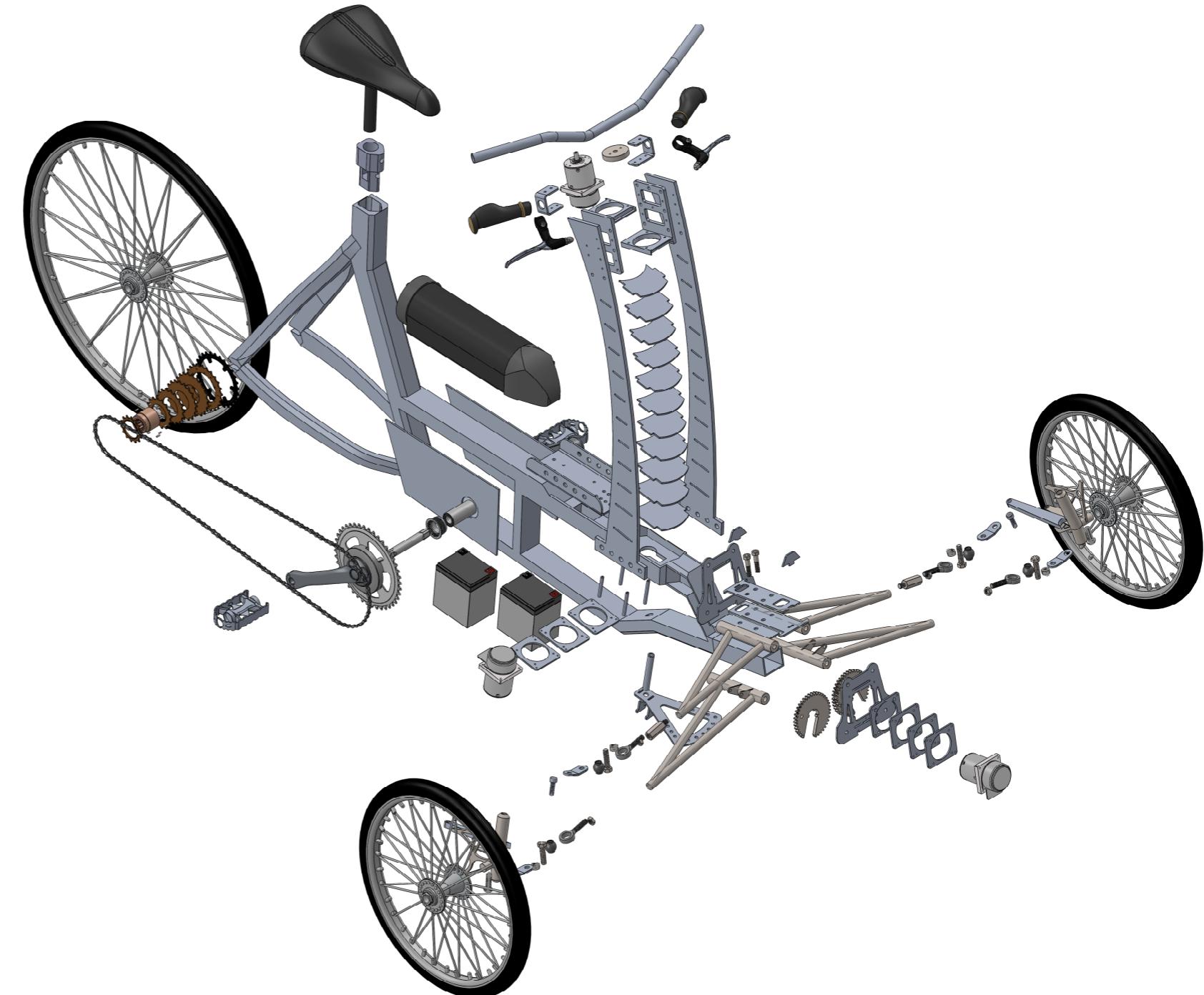


1 2 3 4 5 6 7 8



1 2 3 4 5 6 7 8

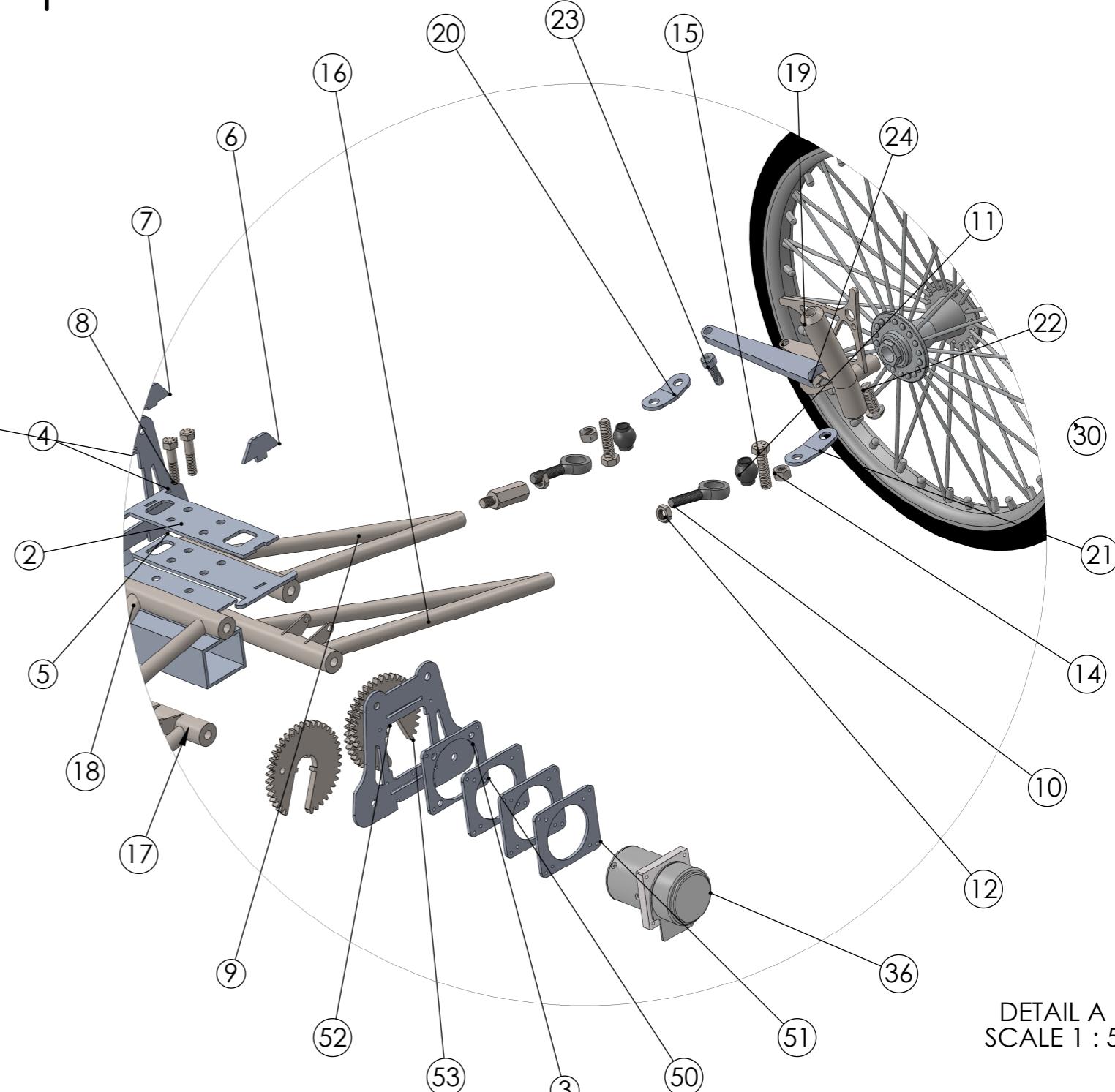
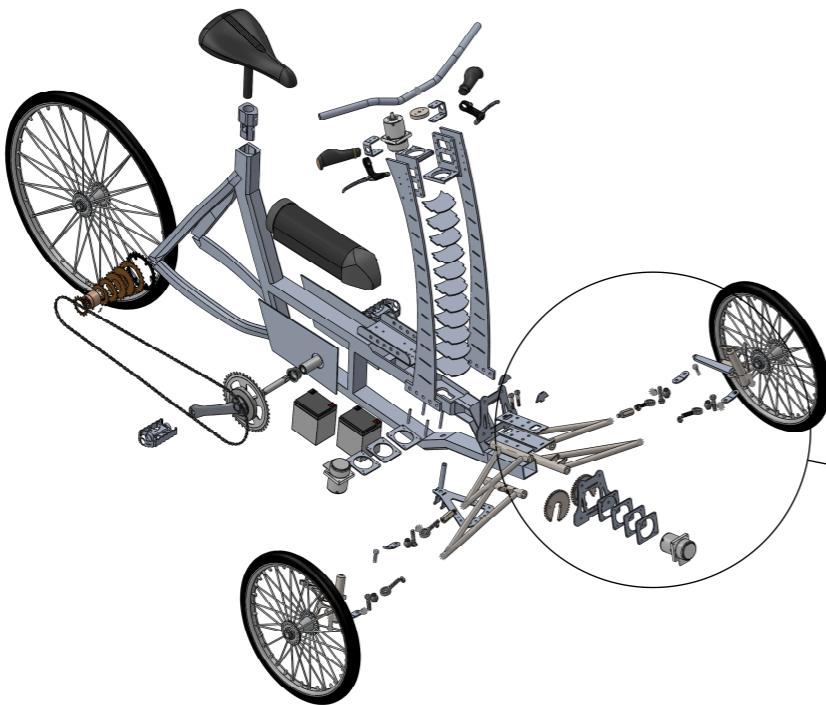
ITEM NO.	DESCRIPTION	MATERIAL	WEIGHT	Default/ QTY.
1	Frame^Redesign_motor_02_01	1060 Alloy	12064.65	1
2	Bracket_R^Redesign_motor_02_01	1060 Alloy	79.08	1
3	Bracket_F^Redesign_motor_02_01	1060 Alloy	83.38	1
4	Bridge_Low_1^Redesign_motor_02_01	1060 Alloy	48.60	1
5	Bridge_Low_2^Redesign_motor_02_01	1060 Alloy	56.60	1
6	Join_Low_1^Redesign_motor_02_01	1060 Alloy	5.61	1
7	Join_Low_2^Redesign_motor_02_01	1060 Alloy	5.31	1
8	90201A228_EXTREME-STRENGTH GRADE 9 STEEL CAP SCREW	Alloy Steel	0.04	2
9	TL_Arm^Redesign_motor_02_01	Alloy Steel	1003.01	1
10	6960T610_SUPER-SWIVEL BALL JOINT ROD END - fix	Alloy Steel	0.093	4
11	6960T610_SUPER-SWIVEL BALL JOINT ROD END - ball	Alloy Steel	0.059	4
12	94846A515_GRADE 5 STEEL THIN HEX NUT	Alloy Steel	0.01	4
13	92499A298_18-8 SS MALE-FEM HEX THRD ADAPTER	Alloy Steel	0.13	2
14	90499A815_GRADE 8 STEEL HEX NUT	Alloy Steel	0.016	4
15	92620A628_HIGH-STRENGTH GRADE 8 STEEL CAP SCREW	Alloy Steel	0.06	4
16	BL_Arm^Redesign_motor_02_01	Alloy Steel	1153.57	1
17	BR_Arm^Redesign_motor_02_01	Alloy Steel	1153.60	1
18	TR_Arm^Redesign_motor_02_01	Alloy Steel	1003.01	1
19	Kingpin_L^Redesign_motor_02_01	Alloy Steel	513.78	1
20	Align_top^Redesign_motor_02_01	1060 Alloy	8.52	1
21	Align_bottom^Redesign_motor_02_01	1060 Alloy	9.22	1
22	91239A515_CLASS 10.9 STL BUTTON-HEAD SOCKET CAP SCREW	Alloy Steel	21.578	2
23	91292A148_TYPE 18-8 SS SOCKET HEAD CAP SCREW	1060 Alloy	5.19	2
24	Kingpin_L_Steering^Redesign_motor_02_01	1060 Alloy	63.80	1
25	Kingpin_R^Redesign_motor_02_01	Alloy Steel	513.93	1
26	Copy of Align_top^Redesign_motor_02_01	1060 Alloy	8.52	1
27	Copy of Align_bottom^Redesign_motor_02_01	1060 Alloy	9.22	1
28	Kingpin_R_Steering^Redesign_motor_02_01	1060 Alloy	71.68	1
29	TIRE WHEEL ASSEM	Material <not specified>	6.61	2
30	TIRE WHEEL ASSEM_Rear	Material <not specified>	8.82	1
31	80-A096-0004	Material <not specified>	104.21	3
32	Copy of Join_motor	1060 Alloy	18.39	1
33	Join_motor^Redesign_motor_02_01	1060 Alloy	22.82	6
34	Gear_Blank_new	Alloy Steel	65.75	1
35	Gear_Blank2_new	Alloy Steel	207.83	2
36	Steering_tube^Redesign_motor_02_01	1060 Alloy	14.35	1
37	Steering_Join	Material <not specified>	72.76	1
38	Steering_Motor_Tubes^Redesign_motor_02_01	Material <not specified>	4.44	1
39	60645K131_STEEL BALL JOINT ROD END_Ball	Alloy Steel	0.022	4
40	Bike_Seat	Material <not specified>	87.72	1
41	SEAT	Material <not specified>	1.00	1
42	kett_115-590-50	Plain Carbon Steel	200.00	1
43	Crank_assembledpartst	1060 Alloy	400.00	1
44	Crank_assembledpartst2	1060 Alloy	200.00	1
45	SpRocket	Material <not specified>	0.44	1
46	Shimano UN52BB	Material <not specified>	120.00	1
47	Pedal	1060 Alloy	165.00	2
48	Drivetrain_Cover_R^Redesign_motor_02_01	1060 Alloy	311.94	1
49	Drivetrain_Cover_L^Redesign_motor_02_01	1060 Alloy	314.32	1
50	Steering_Bar_Support^Redesign_motor_02_01	1060 Alloy	241.22	1
51	Steering_Bar^Redesign_motor_02_01	1060 Alloy	776.93	2
52	Steering_Bar_Join_1^Redesign_motor_02_01	1060 Alloy	53.89	1
53	Steering_Bar_Join_2^Redesign_motor_02_01	1060 Alloy	50.75	1
54	Steering_Bar_Join_3^Redesign_motor_02_01	1060 Alloy	47.01	1
55	Steering_Bar_Join_4^Redesign_motor_02_01	1060 Alloy	44.48	1
56	Steering_Bar_Join_5^Redesign_motor_02_01	1060 Alloy	40.83	1
57	Steering_Bar_Join_6^Redesign_motor_02_01	1060 Alloy	37.91	1
58	Steering_Bar_Join_7^Redesign_motor_02_01	1060 Alloy	36.54	1
59	Steering_Bar_Join_8^Redesign_motor_02_01	1060 Alloy	33.68	1
60	Steering_Bar_Join_9^Redesign_motor_02_01	1060 Alloy	32.87	1
61	Steering_Bar_Join_10^Redesign_motor_02_01	1060 Alloy	37.45	1
62	Steering_Bar_Join_11^Redesign_motor_02_01	1060 Alloy	35.74	1
63	Handle_Motor_Join^Redesign_motor_02_01	1060 Alloy	148.80	2
64	Handle_Bar^Redesign_motor_02_01	1060 Alloy	141.55	1
65	Handle_Grip_Brake^Redesign_motor_02_01	Material <not specified>	181.48	1
66	Handle_Motor_Gear^Redesign_motor_02_01	Alloy Steel	132.71	1
67	Handle_Bar_Attachment_1^Redesign_motor_02_01	1060 Alloy	23.80	1
68	Handle_Bar_Attachment_2^Redesign_motor_02_01	1060 Alloy	22.68	1
69	Battery12V_5A	Material <not specified>	633.76	2
70	accupack	Material <not specified>	565.60	1



Material:	This drawing and any information or descriptive material set out on it are the confidential and copyright property of MIT Media Lab , © and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of MIT Media Lab .		
Finish:			
Unless Otherwise Stated: Linear Tol.: ±0.2, Angular Tol.: 0°15' Surface Finish: 0.8µm All Dimensions: mm			
Document Type: Drawing			
Drawing Scale: 1:10	MIT Media Lab		
Approx Weight: 37011.10 gr	Drawing Produced In Accordance With: BS8888		
Projection Method: THIRD ANGLE	Legal Owner: mit media lab 75 Amherst St, Cambridge, MA 02139		
Sheet Size: A3	Part Number:		
Drawing Number: 1	Sheet: 2 of 6	Revision: A	

1 2 3 4 5 6 7 8

ITEM NO.	DESCRIPTION	MATERIAL	WEIGHT	QTY.
2	Bracket_R^Redesign_motor_02_01	1060 Alloy	79.08	1
3	Bracket_F^Redesign_motor_02_01	1060 Alloy	83.38	1
4	Bridge_Low_1^Redesign_motor_02_01	1060 Alloy	48.60	1
5	Bridge_Low_2^Redesign_motor_02_01	1060 Alloy	56.60	1
6	Join_Low_1^Redesign_motor_02_01	1060 Alloy	5.61	1
7	Join_Low_2^Redesign_motor_02_01	1060 Alloy	5.31	1
8	90201A228_EXTREME-STRENGTH GRADE 9 STEEL CAP SCREW	Alloy Steel	0.04	2
10	6960T610_SUPER-SWIVEL BALL JOINT ROD END - fix	Alloy Steel	0.093	4
11	6960T610_SUPER-SWIVEL BALL JOINT ROD END - ball	Alloy Steel	0.059	4
12	94846A515_GRADE 5 STEEL THIN HEX NUT	Alloy Steel	0.01	4
14	90499A815_GRADE 8 STEEL HEX NUT	Alloy Steel	0.016	4
15	92620A628_HIGH-STRENGTH GRADE 8 STEEL CAP SCREW	Alloy Steel	0.06	4
16	BL_Arm^Redesign_motor_02_01	Alloy Steel	1153.57	1
17	BR_Arm^Redesign_motor_02_01	Alloy Steel	1153.60	1
18	TR_Arm^Redesign_motor_02_01	Alloy Steel	1003.01	1
19	Kingpin_L^Redesign_motor_02_01	Alloy Steel	513.78	1
20	Align_top^Redesign_motor_02_01	1060 Alloy	8.52	1
21	Align_bottom^Redesign_motor_02_01	1060 Alloy	9.22	1
22	91239A515_CLASS 10.9 STL BUTTON-HEAD SOCKET CAP SCREW	Alloy Steel	21.578	2
23	91292A148_TYPE 18-8 SS SOCKET HEAD CAP SCREW	1060 Alloy	5.19	2
24	Kingpin_L_Scoring^Redesign_motor_02_01	1060 Alloy	63.80	1
30	Tire	Natural Rubber	534.21	2
36	_X2_96F64EF6_X0_4	Material <not specified>	12.84	3
50	Copy of Join_motor	1060 Alloy	18.39	1
51	Join_motor^Redesign_motor_02_01	1060 Alloy	22.82	6
52	Gear_Bank_new	Alloy Steel	65.75	1
53	Gear_Bank2_new	Alloy Steel	207.83	2

DETAIL A
SCALE 1 : 5

Material: -	This drawing and any information or descriptive material set out on it are the confidential and copyright property of MIT Media Lab , © and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of MIT Media Lab .	Description: Suspension + Tilting Detailed View
Finish:		Drawn by: Iñigo Martinez
Unless Otherwise Stated: Linear Tol.: ±0.2, Angular Tol.: 0°15' Surface Finish: 0.8µm All Dimensions: mm	Document Type: Drawing	Drawn Date: 27/04/2017
	Drawing Scale: 1:20	Checked/Approved by: Michael Lin
Approx Weight: 37011.10 gr	Drawing Produced In Accordance With: BS8888	Checked/Approved Date: 27/04/2017
Projection Method: THIRD ANGLE	Sheet Size: A3	Part Number:
		Drawing Number: 1
		Sheet: 3 of 6
		Revision: A

mit media lab
75 Amherst St, Cambridge, MA 02139

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

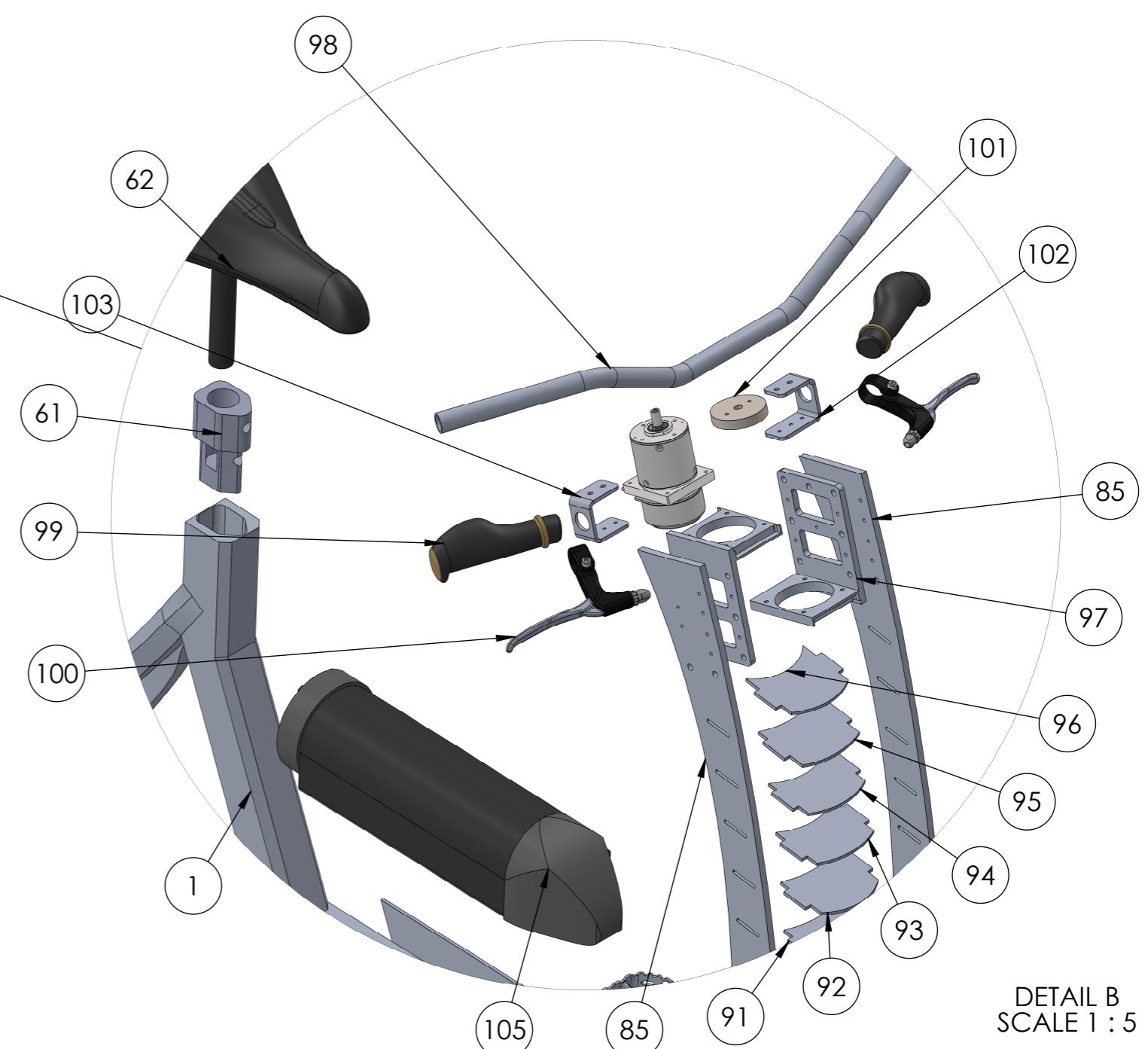
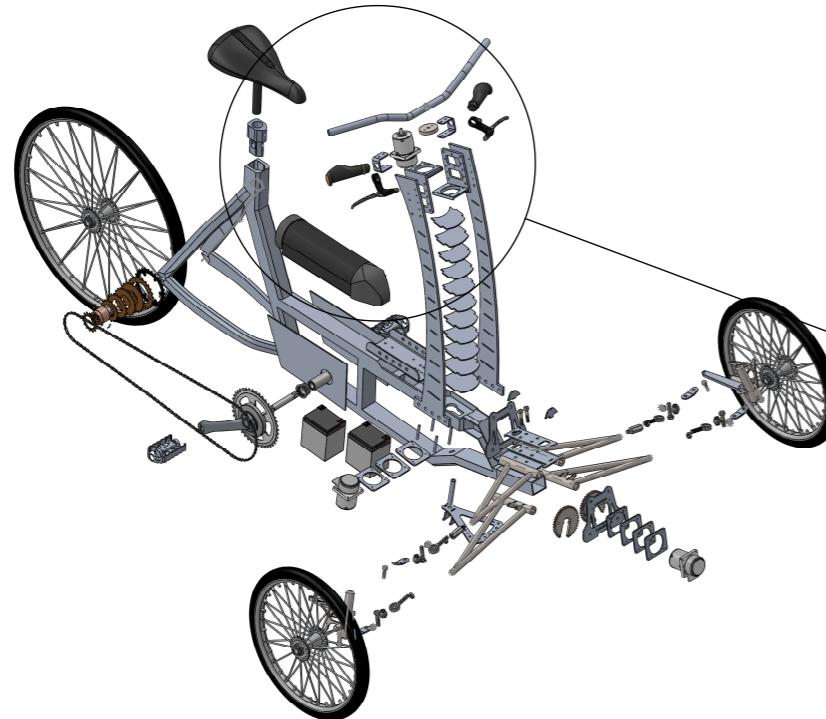
B

C

D

E

F



DETAIL B
SCALE 1 : 5

ITEM NO.	DESCRIPTION	MATERIAL	WEIGHT	QTY.
1	Frame^Redesign_motor_02_01	1060 Alloy	12064.65	1
61	Part2^Bike_Seat	Material <not specified>	68.70	1
62	SEAT	Material <not specified>	1.00	1
85	Steering_Bar^Redesign_motor_02_01	1060 Alloy	776.93	2
91	Steering_Bar_Join_6^Redesign_motor_02_01	1060 Alloy	37.91	1
92	Steering_Bar_Join_7^Redesign_motor_02_01	1060 Alloy	36.54	1
93	Steering_Bar_Join_8^Redesign_motor_02_01	1060 Alloy	33.68	1
94	Steering_Bar_Join_9^Redesign_motor_02_01	1060 Alloy	32.87	1
95	Steering_Bar_Join_10^Redesign_motor_02_01	1060 Alloy	37.45	1
96	Steering_Bar_Join_11^Redesign_motor_02_01	1060 Alloy	35.74	1
97	Handle_Motor_Join^Redesign_motor_02_01	1060 Alloy	148.80	2
98	Handle_Bar^Redesign_motor_02_01	1060 Alloy	141.55	1
99	stang	Material <not specified>	136.07	1
100	stang2	Material <not specified>	45.41	1
101	Handle_Motor_Gear^Redesign_motor_02_01	Alloy Steel	132.71	1
102	Handle_Bar_Attachment_1^Redesign_motor_02_01	1060 Alloy	23.80	1
103	Handle_Bar_Attachment_2^Redesign_motor_02_01	1060 Alloy	22.68	1
105	accupack	Material <not specified>	565.60	1

Material: -	This drawing and any information or descriptive material set out on it are the confidential and copyright property of MIT Media Lab , © and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of MIT Media Lab .	Description: Handle-Bar Detailed View
Finish:		Drawn by: Iñigo Martinez Drawn Date: 27/04/2017
Unless Otherwise Stated: Linear Tol.: ±0.2, Angular Tol.: 0°15' Surface Finish: 0.8µm All Dimensions: mm	Document Type: Drawing	Checked/Approved by: Michael Lin Checked/Approved Date: 27/04/2017
Drawing Scale: 1:20	MIT Media Lab	
Approx Weight: 37011.10 gr	Drawing Produced In Accordance With: BS8888	Legal Owner:  75 Amherst St, Cambridge, MA 02139
Projection Method: THIRD ANGLE	Sheet Size: A3	Part Number: Drawing Number: 1
		Sheet: 4 of 6
		Revision: A

1 2 3 4 5 6 7 8

A

A

B

B

C

C

D

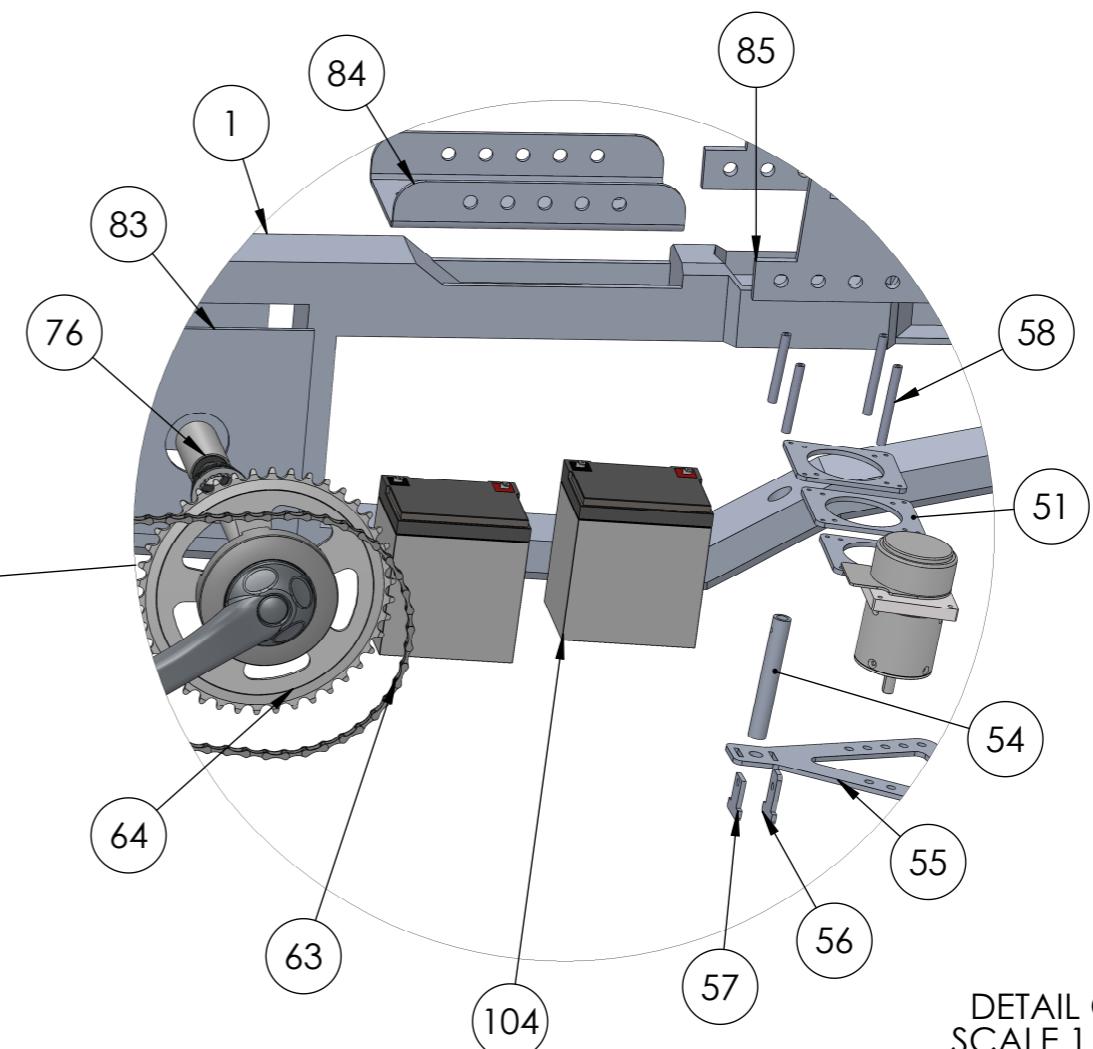
D

E

E

F

F

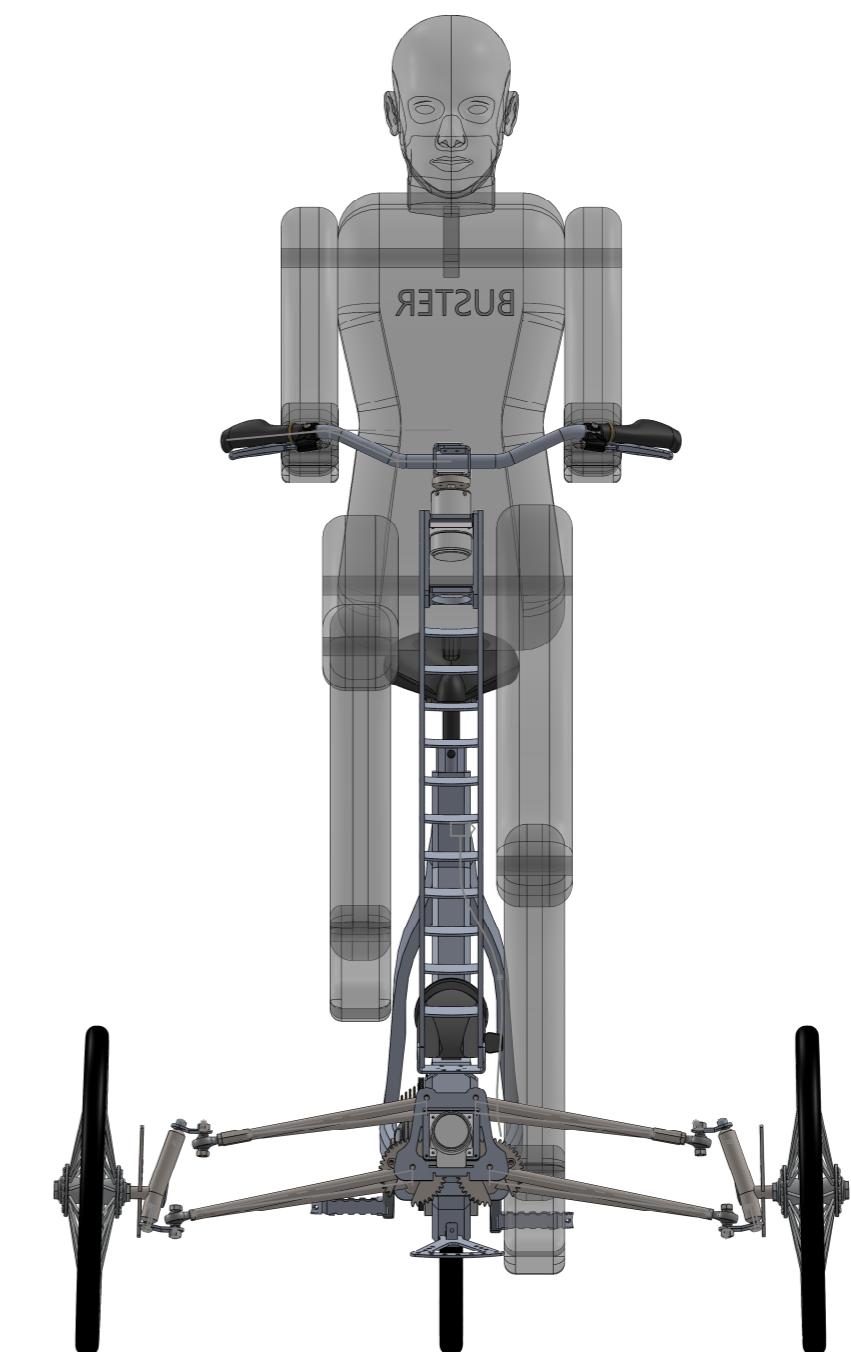
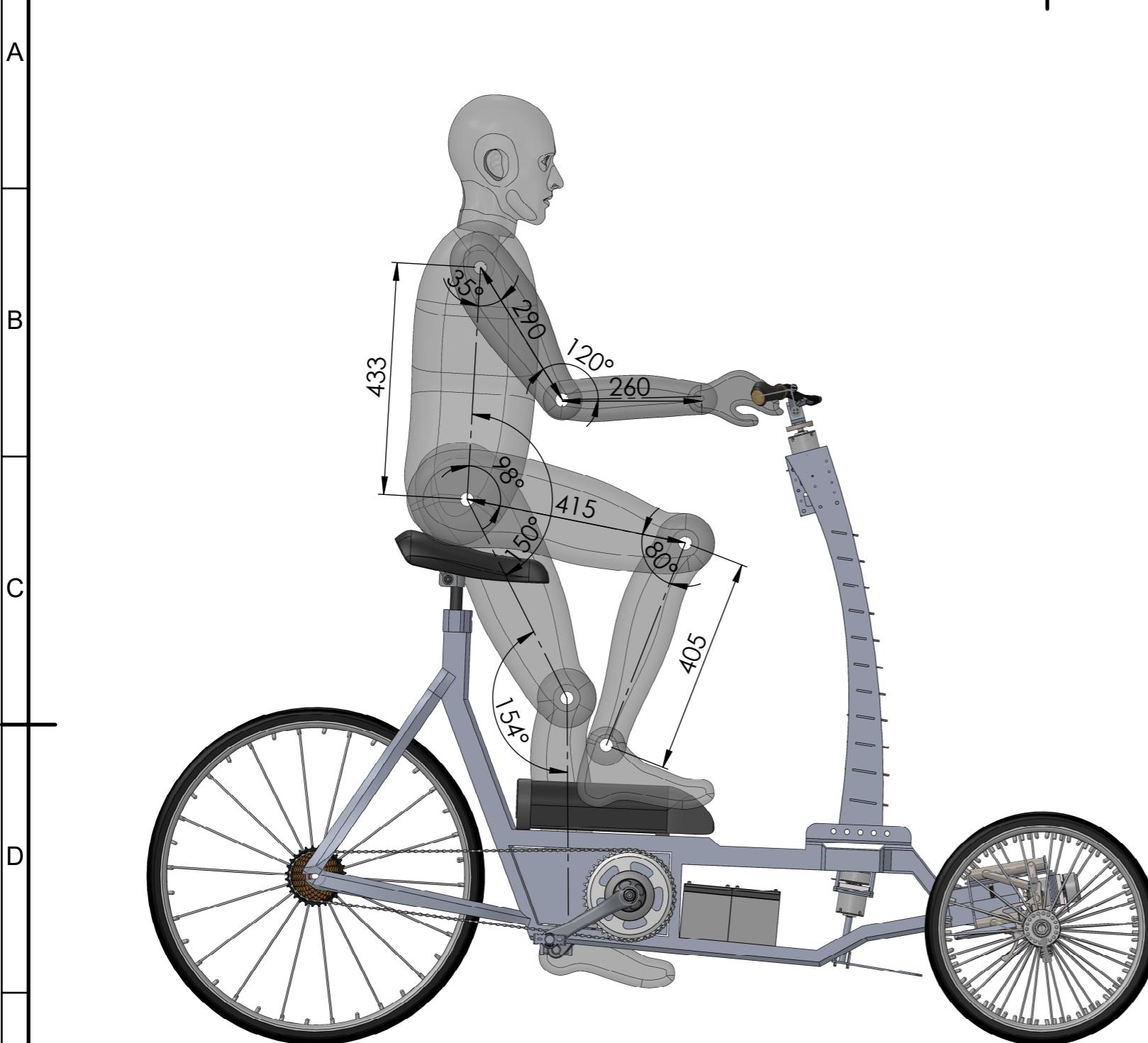


DETAIL C
SCALE 1 : 5

ITEM NO.	DESCRIPTION	MATERIAL	WEIGHT	QTY.
1	Frame^Redesign_motor_02_01	1060 Alloy	12064.65	1
51	Join_motor^Redesign_motor_02_01	1060 Alloy	22.82	6
54	Steering_tube^Redesign_motor_02_01	1060 Alloy	14.35	1
55	Part1	1060 Alloy	64.36	1
56	Part2^Steering_Join	1060 Alloy	4.57	1
57	Copy of Part2^Steering_Join	1060 Alloy	3.83	1
58	Steering_Motor_Tubes^Redesign_motor_02_01	Material <not specified>	4.44	1
63	kett_115-590-50	Plain Carbon Steel	200.00	1
64	Crank_assembledparts	1060 Alloy	400.00	1
76	UN52-cartridge	Chrome Stainless Steel	190.43	1
83	Drivetrain_Cover_L^Redesign_motor_02_01	1060 Alloy	314.32	1
84	Steering_Bar_Support^Redesign_motor_02_01	1060 Alloy	241.22	1
85	Steering_Bar^Redesign_motor_02_01	1060 Alloy	776.93	2
104	Battery12V_5A	Material <not specified>	633.76	2

Material: -	This drawing and any information or descriptive material set out on it are the confidential and copyright property of MIT Media Lab , © and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of MIT Media Lab .	
Finish:	Document Type: Drawing	
Unless Otherwise Stated: Linear Tol.: ±0.2, Angular Tol.: 0°15' Surface Finish: 0.8µm All Dimensions: mm	Drawing Scale: 1:20	
Approx Weight: 37011.10 gr	Drawing Produced In Accordance With: BS8888	
Projection Method: THIRD ANGLE	Sheet Size: A3	
Legal Owner:  75 Amherst St, Cambridge, MA 02139		
Part Number:		
Drawing Number: 1	Sheet: 5 of 6	Revision: A

1 2 3 4 5 6 7 8



Material: -	This drawing and any information or descriptive material set out on it are the confidential and copyright property of MIT Media Lab . © and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of MIT Media Lab .		Description: Ergonomics Design with Driver Model
Finish:			Drawn by: Iñigo Martinez Drawn Date: 27/04/2017
Unless Otherwise Stated: Linear Tol.: ±0.2, Angular Tol.: 0°15' Surface Finish: 0.8µm All Dimensions: mm	Document Type: Drawing		Checked/Approved by: Michael Lin Checked/Approved Date: 27/04/2017
Drawing Scale: 1:10	MIT Media Lab		
Approx Weight: 37011.0g	Drawing Produced In Accordance With: BS8888	Legal Owner:  75 Amherst St, Cambridge, MA 02139	Part Number:
Projection Method: THIRD ANGLE	Sheet Size: A3	Drawing Number: 1 Sheet: 6 of 6 Revision: A	

1 2 3 4 5 6 7 8