

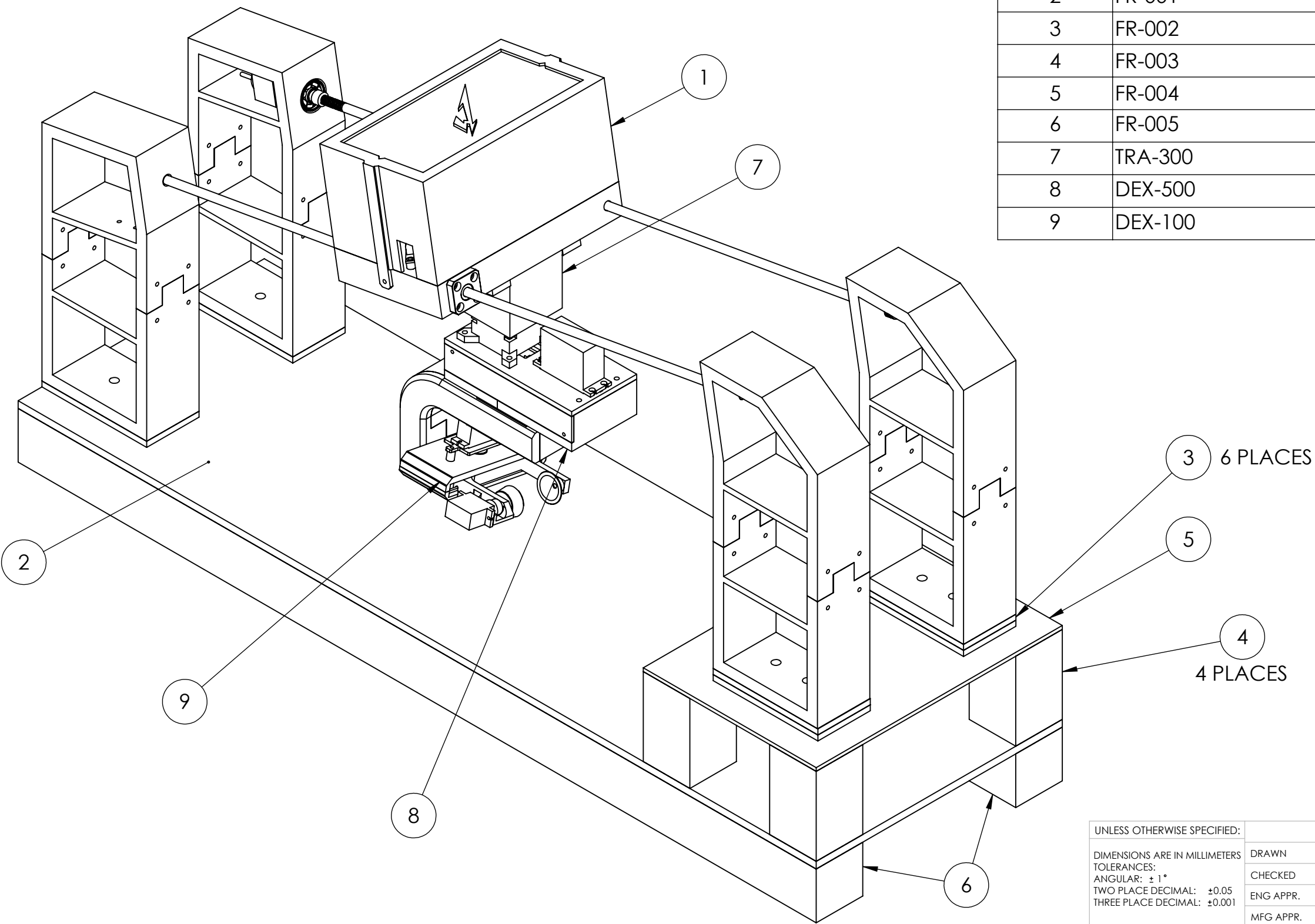
4

3

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1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TRA-200	A-B Assembly	1
2	FR-001	Base	1
3	FR-002	Tower Shim	6
4	FR-003	Lift	4
5	FR-004	End Platform	1
6	FR-005	Leg	2
7	TRA-300	Z-Mechanism Assembly	1
8	DEX-500	Rotation Assembly	1
9	DEX-100	Dexterity Gripper	1



UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<b>ME380 GROUP 03 (METALLICA)</b>	
DIMENSIONS ARE IN MILLIMETERS		DRAWN	LC		
TOLERANCES:		CHECKED			
ANGULAR: $\pm 1^\circ$		ENG APPR.			
TWO PLACE DECIMAL: $\pm 0.05$		MFG APPR.			
THREE PLACE DECIMAL: $\pm 0.001$		Q.A.		TITLE: <b>Pick and Place Robot</b>	
INTERPRET GEOMETRIC TOLERANCING PER:		COMMENTS:			
MATERIAL				SIZE	DWG. NO.
FINISH				<b>B</b>	<b>GEN-100</b>
DO NOT SCALE DRAWING				SCALE: 1:3	REV 00
				Mass: 7387.17g	SHEET 1 OF 2

**PROPRIETARY AND CONFIDENTIAL**  
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3

2

1

B

A

B

A

4				3				2				1			
	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.		ITEM NO.	PART NUMBER	DESCRIPTION	QTY.		ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	
	1	TRA-201	Motion Rail Point A Tower	1		26	TRA-301	Large Tube	1						
	2	ELEC-004	DC Motor	2		27	TRA-302	Small Tube	1						
	3	TRA-206	DC Motor Cradle	1		28	DEX-501	Rotation Arm	1						
	4	TRA-202	Motion Rail Point B Tower	1		29	DEX-502	Rotating Arm Cover	1						
	5	TRA-205	1/4-20 AISI 1045 Steel Rod	1		30	DEX-503	Colour Sensor Mounting Plate	1						
	6	6153K111	Stainless Steel Ball Bearing	2		31	DEX-504	Rotation Arm Gear Piece	1						
	7	TRA-207	Point A (Motor - Threaded Rod) Coupling	1		32	DEX-505	Gearbox Housing Bottom - Left	1						
	8	TRA-204	Slider Rail Point B Tower	1		33	DEX-506	Gearbox Housing Bottom - Right	1						
	9	TRA-203	Slider Rail Point A Tower	1		34	DEX-507	Gearbox Housing Top	1						
	10	TRA-215	Aluminum Rod	1		35	DEX-508	Gearbox Housing Front Cover	1						
	11	TRA-209	Traverse	1		36	DEX-509	Gearbox Housing Support Tab	2						
	12	ELEC-005	Arduino Mega	1		37	DEX-510	Large Gear	1						
	13	TRA-212	H-Bridge Standoff	4		38	ELEC-003	Tower Pro MG995 servo motor	1						
	14	ELEC-006	12V to 5V DC Converter	1		39	DEX-102	Top Gripper Housing	1						
	15	TRA-213	DC-DC Converter Standoff	2		40	DEX-103	Rack Arm Motor	1						
	16	TRA-210	Traverse Lid	1		41	DEX-104	Rack Arm Fixed Cup	1						
	17	ELEC-007	L298N Dual H-Bridge	1		42	DEX-101	Bottom Gripper Housing	1						
	18	6483K61	Flange-Mounted Linear Ball Bearing	2		43	DEX-105	Penta Cup	1						
	19	TRA-208	Point B (Bearing-Threaded Rod) Coupling	1		44	DEX-106	Cone Cup	1						
	20	TRA-211	Arduino Standoff	4		45	DEX-110	Dexterity Motor Shaft	2						
	21	FR-001	Base	1		46	ELEC-002	Smraza S51 Micro Servo Motor	2						
	22	FR-002	Tower Shim	6		47	DEX-108	Gripper Motor Standoff	2						
	23	FR-003	Lift	4		48	DEX-109	Gripper Motor Mount	1						
	24	FR-004	End Platform	1		49	DEX-111	Servo Motor Coupling	1						
	25	FR-005	Leg	2		50	DEX-107	Gripper Pinion Gear	1						

FULL PARTS BOM

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:

ANGULAR:  $\pm 1^{\circ}$

TWO PLACE DECIMAL:  $\pm 0.05$

THREE PLACE DECIMAL:  $\pm 0.001$

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL

FINISH

DO NOT SCALE DRAWING

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DRAWN	LC	NAME	DATE
CHECKED			
ENG APPR.			
MFG APPR.			
Q.A.			
COMMENTS:			

**ME380 GROUP 03 (METALLICA)**

TITLE:

**Pick and Place Robot**

SIZE	DWG. NO.	REV
<b>B</b>	<b>GEN-100</b>	<b>00</b>

SCALE: 1:5    Mass: 7387.17g    SHEET 2 OF 2