



		Schunk LWA 4 P	Schunk LWA 4 D	Universal Robots UR5	Universal Robots UR10	KUKA IIWA 7 R800	KUKA IIWA 14 R820	KUKA LBR4	KUKA KR-16 Neobotix	KUKA KR-16-2KS	
Benefits		Integrated controller, low price	Integrated controller, customisable	Reliable software, safe, low price	Reliable software, safe, strong	Force control, safe, light weight	Force control, safe, light weight	Force control, for high-tech research	High payload, customisable	High payload, proven software	
Mechanical Parameters	Number of Axes	-	6	7	6	6	7	7	7	6	
	Arm weight [kg]	12,5	18	18	28,9	22,3	29,5	15	235	235	
	Controller weight [kg]	-	-	21	21	23	23	23	-	150	
	Payload [kg]	6	10	5	10	7	14	7	25	16	
	Accuracy [mm]	±0,06	±0,1	±0,1	±0,1	±0,1	±0,1	±0,1	±0,05	±0,05	±0,05
	Length [mm]	935	1000	999,5	1300	1100	1100	1100	1800	1800	
	Workspace axis 1 [°]	±170	±180	±360	±360	±170	±170	±170	±114	±114	
	Workspace axis 2 [°]	±110	±124	±360	±360	±120	±120	±120	+80/-110	+80/-110	
	Workspace axis 3 [°]	±155	±180	±162	±162	±170	±170	±170	+154/-130	+154/-130	
	Workspace axis 4 [°]	±170	±129	±360	±360	±120	±120	±120	±350	±350	
	Workspace axis 5 [°]	±140	±170	±360	±360	±170	±170	±170	±130	±130	
	Workspace axis 6 [°]	±170	±130	±360	±360	±120	±120	±120	±350	±350	
	Workspace axis 7 [°]	-	±170	-	-	±170	±170	±170	-	-	
	Gear ratio axis 1			596						125	125
Gear ratio axis 2			596						125	125	
Gear ratio axis 3			625						125	125	
Gear ratio axis 4			625						76,6666	76,6666	
Gear ratio axis 5			552						75,964	75,964	
Gear ratio axis 6			552						27,75	27,75	
Gear ratio axis 7			300						-	-	
Electric	Motor voltage [V]	24	24	48	48	48	48	48	230/400 ~	400 ~	
	Supply voltage [V]	24 =	24 =	100-240 ~	100-240 ~	110-230 ~	110-230 ~	110-230 ~	230/400 ~	400 ~	
	Nominal/peak current [A]	3/20	5/20	8/12	16/24	5/10	5/10	5/10	10/40@230V	10/40	
	Controller box Length [mm]	-	-	380	475	500	500	440	-	800	
	Controller box Width [mm]	-	-	220	268	483	483	448	-	520	
	Controller box Height [mm]	-	-	300	432	190	190	265	-	1250	
Motion parameter	Nominal/peak torque axis 1 [Nm]	35/64	216/372						1300,0/3762,5	1150,0/2062,5	
	Nominal/peak torque axis 2 [Nm]	35/64	216/372						1300,0/3762,5	1150,0/2062,5	
	Nominal/peak torque axis 3 [Nm]	35/64	81,5/176						1262,5/3762,5	600,0/1100,0	
	Nominal/peak torque axis 4 [Nm]	35/64	81,5/176						200,9/808,6	140,0/437,0	
	Nominal/peak torque axis 5 [Nm]	7/19	20,7/41,4						199,0/801,0	140,0/433,0	
	Nominal/peak torque axis 6 [Nm]	7/19	20,7/41,4						72,7/292,6	75,0/158,2	
	Nominal/peak torque axis 7 [Nm]	-	4,5/9,6						-	-	
	Speed axis 1 [°/s]	72	25	180	180	112,5	112,5	112,5	96	155	
	Speed axis 2 [°/s]	72	25	180	180	112,5	112,5	112,5	96	155	
	Speed axis 3 [°/s]	72	24	180	180	112,5	112,5	112,5	120	155	
Speed axis 4 [°/s]	72	24	180	180	112,5	112,5	112,5	195,7	330		
Speed axis 5 [°/s]	90	25	180	180	180	180	180	197,5	332		
Speed axis 6 [°/s]	90	25	180	180	112,5	112,5	112,5	540,5	615		
Speed axis 7 [°/s]	-	50	-	-	112,5	112,5	112,5	-	-		
Software	Operating system	Ubuntu Linux	Ubuntu Linux	-	-	-	-	-	Ubuntu Linux	-	
	Control program	Neobotix "ArmCtrl"	Neobotix "ArmCtrl"	Universal Robots	Universal Robots	KUKA	KUKA	KUKA	Neobotix "ArmCtrl"	KUKA	
	Control modes	Joystick, Software Joystick, Automatic									