Corrigendum

Corrigendum to “Modular Self-Reconfigurable Robotic Systems: A Survey on Hardware Architectures”

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In the article titled “Modular Self-Reconfigurable Robotic Systems: A Survey on Hardware Architectures” [1], the data presented in Table 2 might have been confusing. Therefore, the table is reformatted as follows.

TABLE 2: Comparison of MSRR designs.

Struct.	Reconf.	Category		Locom.	Robot	Shape	DOF	Coupling		Number of Conn. faces			Ref.
		Form fr.						Interface	Actuator	Activ/M	Passv./F		
Lattice	Detrmn.	Mini	Coord.	Coord.	Microunit I	Square	2D	Latch	SMA	2F	2M	[15]	
Lattice	Detrmn.	Mini	Coord.	Coord.	Microunit II	Cubical	3D	Latch	SMA	3F	3M	[16]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Metamorphic I	Hexagon	2D	Lock	DC motor	3M	3F	[6–8]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Metamorphic II	Square	2D	Lock	DC motor	2M	2F	[7]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Fracta	Triangular	2D	Elect. mag.	Current	3M	3F	[9]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Vertical	Cubical	2D	Key & lock	—	0	4	[17]	
Lattice	Detrmn.	Macro	Coord.	Coord.	3D unit	Cubical	3D	Hooks	DC motor	6	0	[11, 12]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Molecule	Cuboid	3D	Elect. mag.	Current	0	6	[10, 102]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Crystalline	Cuboid	2D	Key & lock	DC motor	2M	2F	[18]	
Lattice	Detrmn.	Macro	Coord.	Coord.	I-cubes	Cubical	3D	Key & lock	Servo motor	2M	6F	[13, 14]	
Lattice	Detrmn.	Macro	Coord.	Coord.	Telecubes	Cubical	3D	Swic. mgnts.	SMA	6 DI. faces		[19]	
Lattice	Detrmn.	Macro	Coord.	Coord.	ATRON	Octagonal	3D	Hooks	DC motor	4M	4F	[30, 31]	
Lattice	Detrmn.	Macro	Coord.	Coord.	EM-cube	Cubical	2D	Elect. mag.	Current	2	2	[20]	
Lattice	Detrmn.	Macro	Coord.	Coord.	M-blocks 2D	Cubical	2D	Perm. mag.	—	0	6	[21]	
Lattice	Detrmn.	Macro	Coord.	Coord.	M-blocks 3D	Cubical	3D	Perm. mag.	—	0	6	[22]	
Lattice	Detrmn.	Macro	Mobile	Mobile	Petro	Tetrahedral	3D	Latch	Manual	0	4	[32]	
Lattice	Stocst.	Mini	Extern.	Extern.	Pebbles	Cubical	2D	El-pm. mag.	Current	4	0	[24]	
Lattice	Stocst.	Mini	Extern.	Extern.	Miche	Cubical	3D	Rot. pr. mg.	motor	3	3	[23]	
Lattice	Stocst.	Macro	Extern.	Extern.	Stochastic 2D	Cubical	2D	Elect. mag.	Current	4	0	[25]	
Lattice	Stocst.	Macro	Extern.	Extern.	Stochastic 3D	Cubical	3D	Elect. mag.	Current	6	0	[26]	
Lattice	Stocst.	Macro	Extern.	Extern.	Prog. parts	Triangular	2D	Perm. mag.	DC motor	3	0	[27]	
Lattice	Stocst.	Macro	Extern.	Extern.	X-bot	Cubical	2D	Perm. mag.	SMA	4	0	[28, 29]	
Chain	Detrmn.	Macro	Mobile	Mobile	CEBOT I	Cuboid	3D	Latch	SMA	1M	1F	[33]	
Chain	Detrmn.	Macro	Mobile	Mobile	CEBOT II	Cuboid	3D	Latch	DC motor	1M	1F	[34]	
Chain	Detrmn.	Macro	Mobile	Mobile	ACM-R1	Rectangle	2D	Latch	Manual	0	2	[35]	
Chain	Detrmn.	Macro	Mobile	Mobile	ACM-R2	Rectangle	3D	Latch	Manual	0	2	[36]	
Chain	Detrmn.	Macro	Mobile	Mobile	ACM-R3	Rectangle	3D	Latch	Manual	0	2	[37]	
Chain	Detrmn.	Macro	Mobile	Mobile	Millibot	Elliptical	2D	Latch	SMA	1M	1F	[38]	
Chain	Detrmn.	Macro	Mobile	Mobile	UNI-Rover	Cylind. arm	3D	Latch	Servo motor	1	1	[103]	
Chain	Detrmn.	Macro	Mobile	Mobile	Amoeba - I	Cuboid	3D	Latch	Manual	0	2	[39, 40]	
Chain	Detrmn.	Macro	Mobile	Mobile	JL-1	Trapezoid	3D	Latch	DC motor	1M	1F	[41]	
Chain	Detrmn.	Macro	Mobile	Mobile	JL-2	Trapezoid	3D	Gripper	DC motor	1M	1F	[42]	
Chain	Detrmn.	Macro	Mobile	Mobile	Thor	Cuboid. arm	3D	Gripper	DC motor	1	0	[43]	
Chain	Detrmn.	Macro	Mobile	Mobile	Steering	Cuboid	2D	Latch	—	1M	1F	[104]	
Chain	Detrmn.	Macro	Coord.	Coord.	Polypod	Cubical	3D	Latch	Manual	0	6	[44]	
Chain	Detrmn.	Macro	Coord.	Coord.	CONRO	Cuboid	3D	Latch	SMA	1M	3F	[45–48]	
Chain	Detrmn.	Macro	Coord.	Coord.	Polybot I	Cubical	3D	Latch	Manual	1M	1F	[50]	
Chain	Detrmn.	Macro	Coord.	Coord.	Polybot II	Cubical	3D	Latch	SMA	1M	1F	[51]	
Chain	Detrmn.	Macro	Coord.	Coord.	Polybot III	Cubical	3D	Latch	SMA	1M	1F	[51]	
Chain	Detrmn.	Macro	Coord.	Coord.	Yamor	Semicylind.	3D	Velcros	Manual	0	4	[54]	
Chain	Detrmn.	Macro	Coord.	Coord.	GZ-1	Cubic	3D	Latch	Manual	0	4	[53]	
Chain	Detrmn.	Macro	Coord.	Coord.	Transmote	Cubic	3D	Key & lock	Manual	1M	2F	[52]	
Chain	Detrmn.	Macro	Coord.	Coord.	ModRED	Cuboid	3D	Latch	Solenoid	2 DI. faces		[49]	

TABLE 2: Continued.

Struct.	Category		Locom.	Robot	Shape	DOF	Coupling		Number of Conn. faces		Ref.
	Reconf.	Form fr.					Interface	Actuator	Activ/M	Passv./F	
Hybrid	Detrmn.	Macro	Mobile	S-BOT	Cylindrical	3D	Gripper	motor	1	1	[55–59]
Hybrid	Detrmn.	Macro	Mobile	M ³	L shaped	3D	Hooks	DC motor	3 DL. conn.	6	[63]
Hybrid	Detrmn.	Macro	Mobile	M ³ express	L shaped	3D	Latch	SMA, servo	3 DL. conn.	6	[64]
Hybrid	Detrmn.	Macro	Mobile	iMobot	Cuboidal	3D	Latch	Manual	0	6	[65]
Hybrid	Detrmn.	Macro	Mobile	SMORES	Cubical	3D	Perm. mag	DC motor	3	1	[67]
Hybrid	Detrmn.	Macro	Mobile	Trimobot	Hexagonal	3D	Hooks	DC motors	1M	6F	[68]
Hybrid	Detrmn.	Macro	Coord.	M-Tran I	Semicylind.	3D	Perm. mag	SMA	6	2	[69, 105]
Hybrid	Detrmn.	Macro	Coord.	M-Tran II	Semicylind.	3D	Perm. mag	SMA	6	2	[71, 72]
Hybrid	Detrmn.	Macro	Coord.	M-Tran III	Semicylind.	3D	Hooks	DC motor	6	2	[73]
Hybrid	Detrmn.	Macro	Coord.	Superbot	Cuboid	3D	Latch	Manual	0	6	[74, 75]
Hybrid	Detrmn.	Macro	Coord.	Molecubes	Cubical	3D	Elect. mag.	Current	6	0	[77]
Hybrid	Detrmn.	Macro	Coord.	CKBot	Cubical	3D	Perm. magnets	Manual	0	4	[76]
Hybrid	Detrmn.	Macro	Coord.	UBot	Cubical	3D	Hooks	DC motor	2	2	[78–80]
Hybrid	Detrmn.	Macro	Coord.	Roombots	Cuboidal	3D	Latch	Manual	0–10	0–10	[81]
Hybrid	Detrmn.	Macro	Coord.	Neurobot	Cubical	3D	Latch	DC motor	1M	1F	[5]
Hybrid	Detrmn.	Macro	Coord.	Soldercubes	Cubical	3D	Binder mat.	Current	6	0	[83, 84]
Truss	Detrmn.	Macro	Coord.	Tetrobot	Cylindrical	3D	Spherical jnt.	Manual	2M	3F	[85, 86]
Truss	Detrmn.	Macro	Coord.	ORTHO-BOT	Linact	3D	Split toroid	Manual	0	2	[87]
Truss	Detrmn.	Macro	Coord.	Odin	Cylindrical	3D	CCP jnt.	Manual	2M	12F	[88]
Truss	Detrmn.	Macro	Coord.	Morpho	Cubical	3D	Cubic jnt.	Manual	1	6	[89]
Truss	Detrmn.	Macro	Coord.	Shape shift.	Amorphous	3D	3-way pipe	Manual	2M	3F	[91]
Truss	Detrmn.	Macro	Coord.	Hinge	Cylindrical	3D	18-axis node	Manual	2M	18F	[90]
Truss	Detrmn.	Macro	Coord.	Factory Flr.	Cylindrical	3D	Grippers	Couples	6M	2F	[92]
Free Fr.	Detrmn.	Micro	Coord.	MEMS	L shaped	2D	Alignment	Voltage	—	—	[100, 101]
Free Fr.	Detrmn.	Mini	Coord.	Claytronics	Cylindrical	2D	Electr. mag.	Current	24	0	[94–96]
Free Fr.	Detrmn.	Mini	Coord.	Catom	Cylindrical	2D	Electrodes	Voltage	8	0	[99]
Free Fr.	Detrmn.	Macro	Coord.	Slimebot	Cylindrical	2D	Velcros	Pnu. air cyld.	0	6	[97, 98]
Free Fr.	Detrmn.	Macro	Coord.	Transform.	Cylindrical	2D	Perm. mag.	—	6	2	[93]

References

- [1] S. S. R. Chennareddy, A. Agrawal, and A. Karuppiah, "Modular self-reconfigurable robotic systems: a survey on hardware architectures," *Journal of Robotics*, vol. 2017, Article ID 5013532, 19 pages, 2017.