## Design, Modeling, and Control of an Aerial Robot DRAG Multilink Robot With the Ability of Multi-Degree-of-Fre

IEEE Robotics and Automation Letters 3, 1176-1183 DOI: 10.1109/lra.2018.2793344

**Citation Report** 

#	Article	IF	CITATIONS
1	Flight Motion of Passing Through Small Opening by DRAGON: Transformable Multilinked Aerial Robot. , 2018, , .		12
2	The current state and future outlook of rescue robotics. Journal of Field Robotics, 2019, 36, 1171-1191.	3.2	182
3	External Wrench Estimation for Multilink Aerial Robot by Center of Mass Estimator Based on Distributed IMU System. , 2019, , .		12
4	Disturbances and Coupling Compensation for Trajectory Tracking of a Multi-link Aerial Robot. , 2019, ,		6
5	Modeling and Control of an Aerial Multi-Cargo System: Robust Acquiring and Transport Operations. , 2019, , .		6
6	A Mechanical Approach to Suppress the Oscillation of a Long Continuum Robot Flying With Water Jets. IEEE Robotics and Automation Letters, 2019, 4, 4346-4353.	3.3	22
7	AN EMPIRICAL STUDY ON THE GENDER DIFFERENCES FOR SELF-ORGANIZED ENTREPRENEURIAL BEHAVIOR BASED ON GROUNDED THEORY: A CASE FROM JIANGSU, CHINA. Journal of Developmental Entrepreneurship, 2019, 24, 1950006.	0.4	1
8	Flying watch: an attachable strength enhancement device for long-reach robotic arms. ROBOMECH Journal, 2019, 6, .	0.9	3
9	Design and Experiments for MultI-Section-Transformable (MIST)-UAV. , 2019, , .		2
10	ModQuad-Vi: A Vision-Based Self-Assembling Modular Quadrotor. , 2019, , .		26
11	A Novel Quadcopter with A Tilting Frame using Parallel Link Mechanism. , 2019, , .		11
12	Multi-rigid-body dynamics and online model predictive control for transformable multi-links aerial robot. Advanced Robotics, 2019, 33, 971-984.	1.1	11
13	Pose and Posture Estimation of Aerial Skeleton Systems for Outdoor Flying. , 2019, , .		15
14	Evaluation of a Baseline Controller for Autonomous "Figure-8―Flights of a Morphing Geometry Quadcopter: Flight Performance. Drones, 2019, 3, 70.	2.7	20
15	BioTetra: A Bioinspired Multi-Rotor Aerial Vehicle. , 2019, , .		5
16	Achievement of Online Agile Manipulation Task for Aerial Transformable Multilink Robot. , 2019, , .		3
17	Trajectory Planning for the Shapeshifting of Autonomous Surface Vessels. , 2019, , .		6
18	Modular Reconfigurable Robotics. Annual Review of Control, Robotics, and Autonomous Systems, 2019, 2, 63-88.	7.5	76

#	Article	IF	Citations
19	The Foldable Drone: A Morphing Quadrotor That Can Squeeze and Fly. IEEE Robotics and Automation Letters, 2019, 4, 209-216.	3.3	178
20	Universal Flying Objects: Modular Multirotor System for Flight of Rigid Objects. IEEE Transactions on Robotics, 2020, 36, 458-471.	7.3	21
21	Model Reference Adaptive Control of Multirotor for Missions with Dynamic Change of Payloads During Flight. , 2020, , .		5
22	The Reconfigurable Aerial Robotic Chain: Modeling and Control. , 2020, , .		10
23	Dynamic Modeling of a Transformable Quadrotor. , 2020, , .		7
24	The Design of Prometheus: A Reconfigurable UAV for Subterranean Mine Inspection. Robotics, 2020, 9, 95.	2.1	4
25	Design and Modeling of Unconventional Quadrotors. , 2020, , .		9
26	Aerial Regrasping: Pivoting with Transformable Multilink Aerial Robot. , 2020, , .		14
27	Fire extinguishment using a 4 m long flying-hose-type robot with multiple water-jet nozzles. Advanced Robotics, 2020, 34, 700-714.	1.1	12
28	Gemini: A Compact yet Efficient Bi-copter UAV for Indoor Applications. IEEE Robotics and Automation Letters, 2020, , 1-1.	3.3	39
29	Snake Aerial Manipulators: A Review. IEEE Access, 2020, 8, 28222-28241.	2.6	14
30	Online Motion Planning for Deforming Maneuvering and Manipulation by Multilinked Aerial Robot Based on Differential Kinematics. IEEE Robotics and Automation Letters, 2020, 5, 1602-1609.	3.3	15
31	Enhanced Modeling and Control for Multilinked Aerial Robot With Two DoF Force Vectoring Apparatus. IEEE Robotics and Automation Letters, 2021, 6, 135-142.	3.3	10
32	A Flexibly Assembled and Maneuverable Reconfigurable Modular Multirotor Aerial Vehicle. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1704-1714.	3.7	7
33	FAST-Hex—A Morphing Hexarotor: Design, Mechanical Implementation, Control and Experimental Validation. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1244-1255.	3.7	11
34	Past, Present, and Future of Aerial Robotic Manipulators. IEEE Transactions on Robotics, 2022, 38, 626-645.	7.3	145
35	ARCSnake: Reconfigurable Snakelike Robot With Archimedean Screw Propulsion for Multidomain Mobility. IEEE Transactions on Robotics, 2022, 38, 797-809.	7.3	5
36	Development of Add-On Planar Translational Driving System for Aerial Manipulation with Multirotor Platform. Applied Sciences (Switzerland), 2021, 11, 1462.	1.3	7

#	Article	IF	Citations
# 37	Hopf Bifurcations of a Quadrotor with a Tilting Frame. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2021, E104.A, 632-635.	0.2	0
38	A Survey: Flight Mechanism and Mechanical Structure of the UAV. International Journal of Precision Engineering and Manufacturing, 2021, 22, 719-743.	1.1	15
39	A Comprehensive Review on Reconfigurable Drones: Classification, Characteristics, Design and Control Technologies. Unmanned Systems, 2022, 10, 3-29.	2.7	29
40	Nonlinear Control of a Multilink Aerial System and ASEKF-Based Disturbances Compensation. IEEE Transactions on Aerospace and Electronic Systems, 2021, 57, 907-918.	2.6	3
41	Forceful Aerial Manipulation Based on an Aerial Robotic Chain: Hybrid Modeling and Control. IEEE Robotics and Automation Letters, 2021, 6, 3711-3719.	3.3	11
42	Towards a new design with generic modeling and adaptive control of a transformable quadrotor. Aeronautical Journal, 2021, 125, 2169-2199.	1.1	15
43	Thrust vector control of constrained multibody systems. Automatica, 2021, 129, 109586.	3.0	3
44	Towards reconfigurable and flexible multirotors. International Journal of Intelligent Robotics and Applications, 2021, 5, 365-380.	1.6	13
45	Dynamic End Effector Tracking With an Omnidirectional Parallel Aerial Manipulator. IEEE Robotics and Automation Letters, 2021, 6, 8165-8172.	3.3	26
46	Design, Modeling and Control of a Novel Morphing Quadrotor. IEEE Robotics and Automation Letters, 2021, 6, 8013-8020.	3.3	14
47	A deployable articulated mechanism enabled in-flight morphing aerial gripper. Mechanism and Machine Theory, 2022, 167, 104518.	2.7	12
48	Geometry-aware Compensation Scheme for Morphing Drones. , 2021, , .		6
49	MorphEyes: Variable Baseline Stereo For Quadrotor Navigation. , 2021, , .		3
50	Soft Hybrid Aerial Vehicle via Bistable Mechanism. , 2021, , .		3
51	Fixed-root Aerial Manipulator: Design, Modeling, and Control of Multilink Aerial Arm to Adhere Foot Module to Ceilings using Rotor Thrust. , 2021, , .		1
52	Development of Amphibious Humanoid for Behavior Acquisition on Land and Underwater. , 2021, , .		3
53	Passive Orientation Control of Nozzle Unit With Multiple Water Jets to Expand the Net Force Direction Range for Aerial Hose-Type Robots. IEEE Robotics and Automation Letters, 2021, 6, 5634-5641.	3.3	13
54	Adaptive Control for Cooperative Aerial Transportation Using Catenary Robots. , 2021, , .		3

#	Article	IF	CITATIONS
55	Dynamic modelling and control of flying parallel robots. Control Engineering Practice, 2021, 117, 104953.	3.2	6
56	Path Planning Based on Differential Kinematics for Passing Through Small Opening by Transformable Multilinked Aerial Robot. Springer Proceedings in Advanced Robotics, 2020, , 536-548.	0.9	0
57	The real time modeling and design of multiple vector vehicles combination. , 2020, , .		0
58	Design and Control of a Deformable Trees-Pruning Aerial Robot. Complexity, 2020, 2020, 1-19.	0.9	1
59	Development and Thrust Response Evaluation of a Variable Pitch Propeller Quad Tilt-rotor Drone. Transactions of the Society of Instrument and Control Engineers, 2020, 56, 310-316.	0.1	4
60	Quadrotor with Dual-axis Tilting Frame using Parallelepiped Mechanism. Journal of the Robotics Society of Japan, 2021, 39, 845-853.	0.0	0
61	Vehicle Design in Aerial Robotics. Current Robotics Reports, 2021, 2, 415-426.	5.1	2
62	QuadPlus: Design, Modeling, and Receding-Horizon-Based Control of a Hyperdynamic Quadrotor. IEEE Transactions on Aerospace and Electronic Systems, 2022, 58, 1766-1779.	2.6	6
63	A Fast and Efficient Attitude Control Algorithm of a Tilt-Rotor Aerial Platform Using Inputs Redundancies. IEEE Robotics and Automation Letters, 2022, 7, 1214-1221.	3.3	12
64	Three-Dimensional Posture Optimization for Biped Robot Stepping over Large Ditch Based on a Ducted-Fan Propulsion System. , 2020, , .		5
65	Flight Control of Sliding Arm Quadcopter with Dynamic Structural Parameters. , 2020, , .		12
66	Switching Model Predictive Control for Online Structural Reformations of a Foldable Quadrotor. , 2020, , .		4
67	Morphing Quadcopters: A Comparison Between Proposed and Prominent Foldable Quadcopters. , 2020, , .		0
68	Reconfigurable, Adaptive, Lightweight Grasping Mechanisms for Aerial Robotic Platforms. , 2020, , .		15
69	Geometry Aware NMPC Scheme for Morphing Quadrotor Navigation in Restricted Entrances. , 2021, , .		4
70	Non-Prehensile Manipulation of Cuboid Objects Using a Catenary Robot. , 2021, , .		4
71	Finding Structure Configurations for Flying Modular Robots. , 2021, , .		3
73	Forceful Valve Manipulation With Arbitrary Direction by Articulated Aerial Robot Equipped With Thrust Vectoring Apparatus. IEEE Robotics and Automation Letters, 2022, 7, 4893-4900.	3.3	7

	Сітатіо	n Report	
#	ARTICLE	IF	CITATIONS
74	Design and Analysis of Scissor Extendable Airframe for a Morphing Multirotor. , 2021, , .		0
76	SplitFlyer Air: A Modular Quadcopter That Disassembles Into Two Bicopters Mid-Air. IEEE/ASME Transactions on Mechatronics, 2022, 27, 4729-4740.	3.7	6
77	Observability of the relative motion from inertial data in kinematic chains. Control Engineering Practice, 2022, 125, 105206.	3.2	2
78	Prototype of a Wheel Type Snake Type Robot for Miniaturization. , 2022, , .		0
79	On Modeling and Control of a Holonomic Tricopter. Journal of Intelligent and Robotic Systems: Theory and Applications, 2022, 105, .	2.0	0
80	A Novel Quadrotor With a 3-Axis Deformable Frame Using Tilting Motions of Parallel Link Modules Without Thrust Loss. IEEE Robotics and Automation Letters, 2022, 7, 9581-9588.	3.3	4
81	A Multi-VTOL Modular Aspect Ratio Reconfigurable Aerial Robot. , 2022, , .		9
82	Aerial Manipulation Using Contact with the Environment by Thrust Vectorable Multilinked Aerial Robot. , 2022, , .		2
83	Cooperative Modular Single Actuator Monocopters Capable of Controlled Passive Separation. , 2022, , .		5
84	Soft Pneumatic Actuated Morphing Quadrotor: Design and Development. , 2022, , .		0
85	Magic in Human-Robot Interaction (HRI) <sup>*</sup> . , 2022, , .		0
86	Versatile articulated aerial robot DRAGON: Aerial manipulation and grasping by vectorable thrust control. International Journal of Robotics Research, 2023, 42, 214-248.	5.8	7
87	A Bionics-Based Recovery Strategy for Micro Air Vehicles. IEEE Transactions on Industrial Electronics, 2023, 70, 6068-6077.	5.2	0
88	Crash 2 Squash: An Autonomous Drone for the Traversal of Narrow Passageways. Advanced Intelligent Systems, 2022, 4, .	3.3	5
89	Development of Rotor-distributed Aerial Manipulators to Perch on Ceilings using Thrust and Flight/Perching and End-effector Position Control. Journal of the Robotics Society of Japan, 2022, 40, 701-711.	0.0	0
90	Flying Washer: Development of High-Pressure Washing Aerial Robot Employing Multirotor Platform with Add-On Thrusters. Drones, 2022, 6, 286.	2.7	2
91	Attitude estimation of connected drones based on extended Kalman filter under real outdoor environments. Advanced Robotics, 0, , 1-12.	1.1	0
92	Prototype Development and Flight Controller Implementation of the Sliding-Arm Quadcopter. IFAC-PapersOnLine, 2022, 55, 542-547.	0.5	1

#	Article	IF	Citations
93	A Bipedal Wheel-Legged Robot with Improved Balancing and Disturbance Rejection Capability Assisted by Electrical-Jets. , 2022, , .		2
94	Achievements and future directions in selfâ€reconfigurable modular robotic systems. Journal of Field Robotics, 2023, 40, 701-746.	3.2	3
95	Design, Modeling and Control of a Composable and Extensible Drone with Tilting Rotors. , 2022, , .		1
96	Multi-Modal Multi-Agent Optimization for LIMMS, A Modular Robotics Approach to Delivery Automation. , 2022, , .		2
97	Modeling for ARWs. , 2023, , 31-47.		0
98	ACO-Based Optimal MIMO Sliding Mode Controller Design for a New Reconfigurable Unmanned Aerial Vehicle. , 0, , .		0
99	Modeling, Control and Implementation of Adaptive Reconfigurable ROtary Wings (ARROWs). IEEE/ASME Transactions on Mechatronics, 2023, 28, 2282-2292.	3.7	4
100	Research of the creation and development of unmanned aerial vehicles. E3S Web of Conferences, 2023, 376, 04034.	0.2	3
101	Configurations and Applications of Multi-Agent Hybrid Drone/Unmanned Ground Vehicle for Underground Environments: A Review. Drones, 2023, 7, 136.	2.7	11
102	An Adaptive, Reconfigurable, Tethered Aerial Grasping System for Reliable Caging and Transportation of Packages. , 2022, , .		3
103	On the Development of Tethered, Modular, Self-Attaching, Reconfigurable Vehicles for Aerial Grasping and Package Delivery. , 2022, , .		2
104	Controller Based on Combined Tracking Error Applied in a Tilt-rotor MAV. , 2022, , .		0
105	Generalized Design, Modeling and Control Methodology for a Snake-like Aerial Robot. Sensors, 2023, 23, 1882.	2.1	2
106	Ring-Rotor: A Novel Retractable Ring-Shaped Quadrotor With Aerial Grasping and Transportation Capability. IEEE Robotics and Automation Letters, 2023, 8, 2126-2133.	3.3	0
110	Tetrahedral and Dodecahedral UASs, Structured Designs. , 2023, , 3-41.		0
113	A Non-planar Assembly of Modular Tetrahedral-shaped Aerial Robots. , 2023, , .		1
114	Finding Optimal Modular Robots for Aerial Tasks. , 2023, , .		0
118	Minimum Time Trajectory Generation for Bounding Flight: Combining Posture Control and Thrust Vectoring. , 2023, , .		1

#	Article	IF	CITATIONS
122	Modeling andÂControl Algorithm ofÂtheÂMulti-duct-rotor Mode Transformable Aircraft. Lecture Notes in Electrical Engineering, 2023, , 297-306.	0.3	0
124	Implementation of Inverse Kinematics on Arduino-Based SAR Robot Leg Design as a Control for Robot Motion Maneuverability. , 2023, , .		0
125	Wrench Estimation of Modular Manipulator with External Actuation and Joint Locking. , 2023, , .		0
126	Towards Full Actuation: Reconfigurable Micro Underwater Robots. , 2023, , .		0
127	Problem Definition. Springer Tracts in Advanced Robotics, 2024, , 25-41.	0.3	0