| Component | Specification |
| --- | --- |
| Radio | CC1101 by Texas Instruments, on pre-integrated PCB module |
| Motor Driver (Main Screw Motor) | H-Bridge Motor Driver Module JZ3615<br>(15A continuous, 50A peak) |
| Motor Driver (Pin Gripper Motor) | H-Bridge Motor Driver Chip (2 channels) L298HN<br>(Total 4A continuous) |
| End Switch Configuration | Normal close (NC) switch x 2 pcs |
| Microcontroller | Arduino Mega Pro 2560 (ATMEL ATMega2560 @ 16MHz) |
| Voltage Regulator | Linear Voltage Regulator Chip LM7805 with filter capacitors |
| Radio Addressing Switch | 4-position DIP switch with a resistor ladder |
| Battery Choice | Typical: 4-cell Li-Po 1600mAh 4S 75C (Nominal 14.8V) |
| Battery Connector | XT60 |

| | Collision Check | Reachability Check (CC + IK) | Motion Planning |
|---|---|---|---|
| **Computation Time** | < 1 minute | < 5 minutes | > 8 hours |

| Role | Person | Relationship |
|---|---|---|
| Structure Design | Victor Leung Pok Yin | Author |
| Structural Advice | Davide Tanadini | Research Collaborator |
| Mechanical Design | Marco Rossi | Advisor (Machine Design) |
| Joint Detail Design | Victor Leung Pok Yin | Author |
| Process Design | Victor Leung Pok Yin | Author |
| TAMP Formulation | YiJiang Huang | Research Collaborator |
| | Victor Leung Pok Yin | Author |

| Number of Corrections To Converge | Count |
| --- | --- |
| **0 *** | 3 |
| **1** | 70 |
| **2** | 18 |

* No correction is needed after the marker is detected