



US00D616909S

(12) **United States Design Patent**
Long

(10) **Patent No.:** **US D616,909 S**
(45) **Date of Patent:** **** Jun. 1, 2010**

(54) **MANIPULATOR**

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(**) Term: **14 Years**

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(30) **Foreign Application Priority Data**

Sep. 17, 2009 (CN) 2009 3 0316498.2

(51) **LOC (9) Cl.** **15-99**

(52) **U.S. Cl.** **D15/199**

(58) **Field of Classification Search** D15/199;
D24/176; 74/490.01, 490.02, 490.03, 490.05;
219/124.34, 639; 318/560; 700/99, 150
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,076,131	A *	2/1978	Dahlstrom et al.	.....	414/730
D268,033	S *	2/1983	Stackhouse	.....	D15/199
D269,681	S *	7/1983	Morser et al.	.....	D15/199
D279,571	S *	7/1985	Arai et al.	.....	D15/199
D279,572	S *	7/1985	Yasuoka et al.	.....	D15/199
D287,368	S *	12/1986	Shibayama et al.	.....	D15/199
D293,324	S *	12/1987	Gotou et al.	.....	D15/199
D334,581	S *	4/1993	Yoshikawa et al.	.....	D15/199
D545,334	S *	6/2007	Kraft	.....	D15/199
D548,759	S *	8/2007	Kraft	.....	D15/199
2005/0092122	A1 *	5/2005	Markert et al.	74/490.01

2008/0271561 A1* 11/2008 Ohara et al. 74/490.01

* cited by examiner

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(57) **CLAIM**

The ornamental design for a manipulator, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a manipulator in a non-operative position showing my design;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a left side elevational view thereof;

FIG. 5 is a right side elevational view thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 shows a perspective view of the manipulator in FIG. 1 in a first operative position;

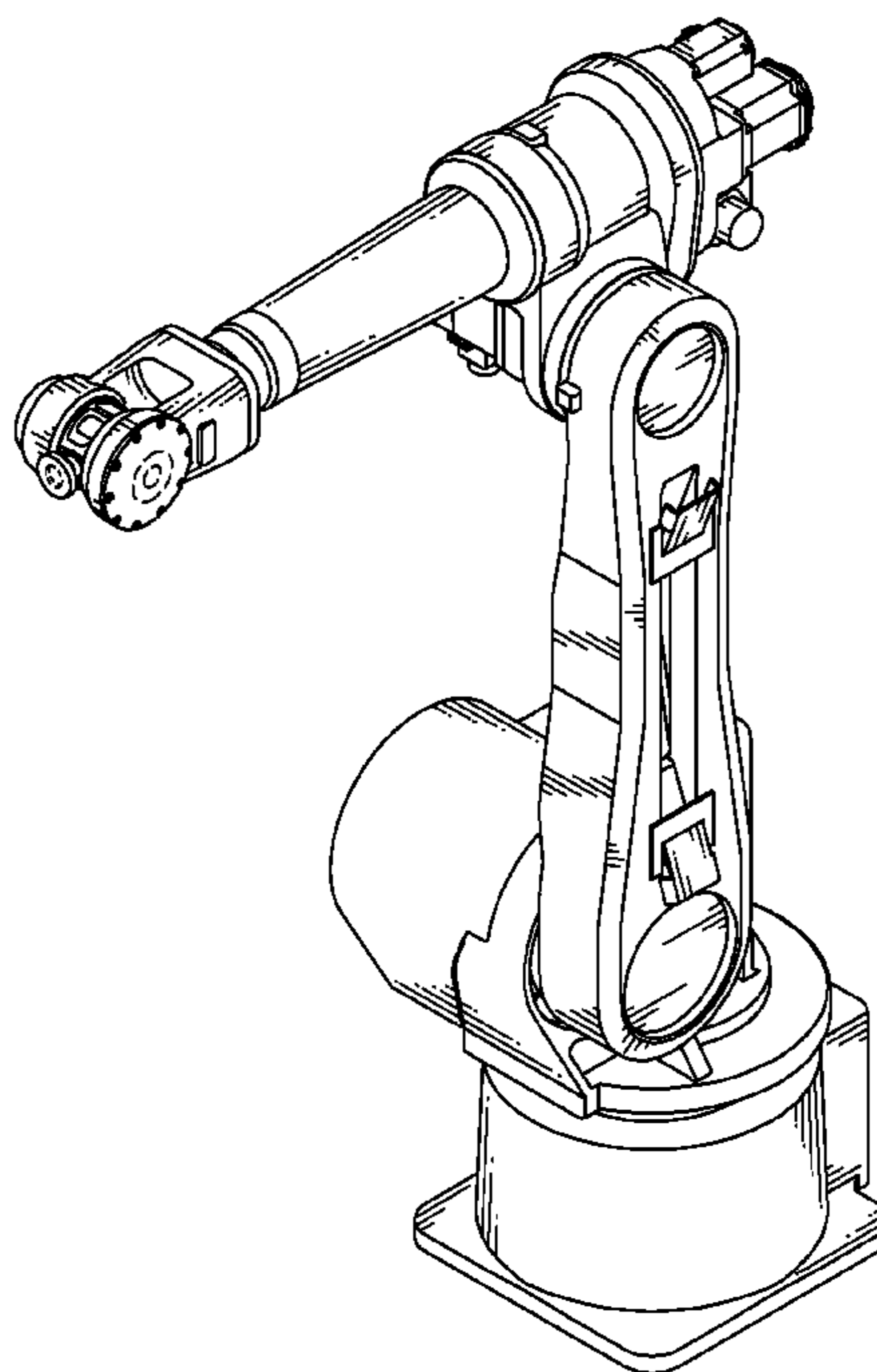
FIG. 9 shows a perspective view of the manipulator in FIG. 1 in a second operative position;

FIG. 10 shows a perspective view of the manipulator in FIG. 1 in a third operative position; and,

FIG. 11 shows a perspective view of the manipulator in FIG. 1 in a fourth operative position.

The broken lines in the drawings depict unclaimed environmental subject matter.

1 Claim, 11 Drawing Sheets



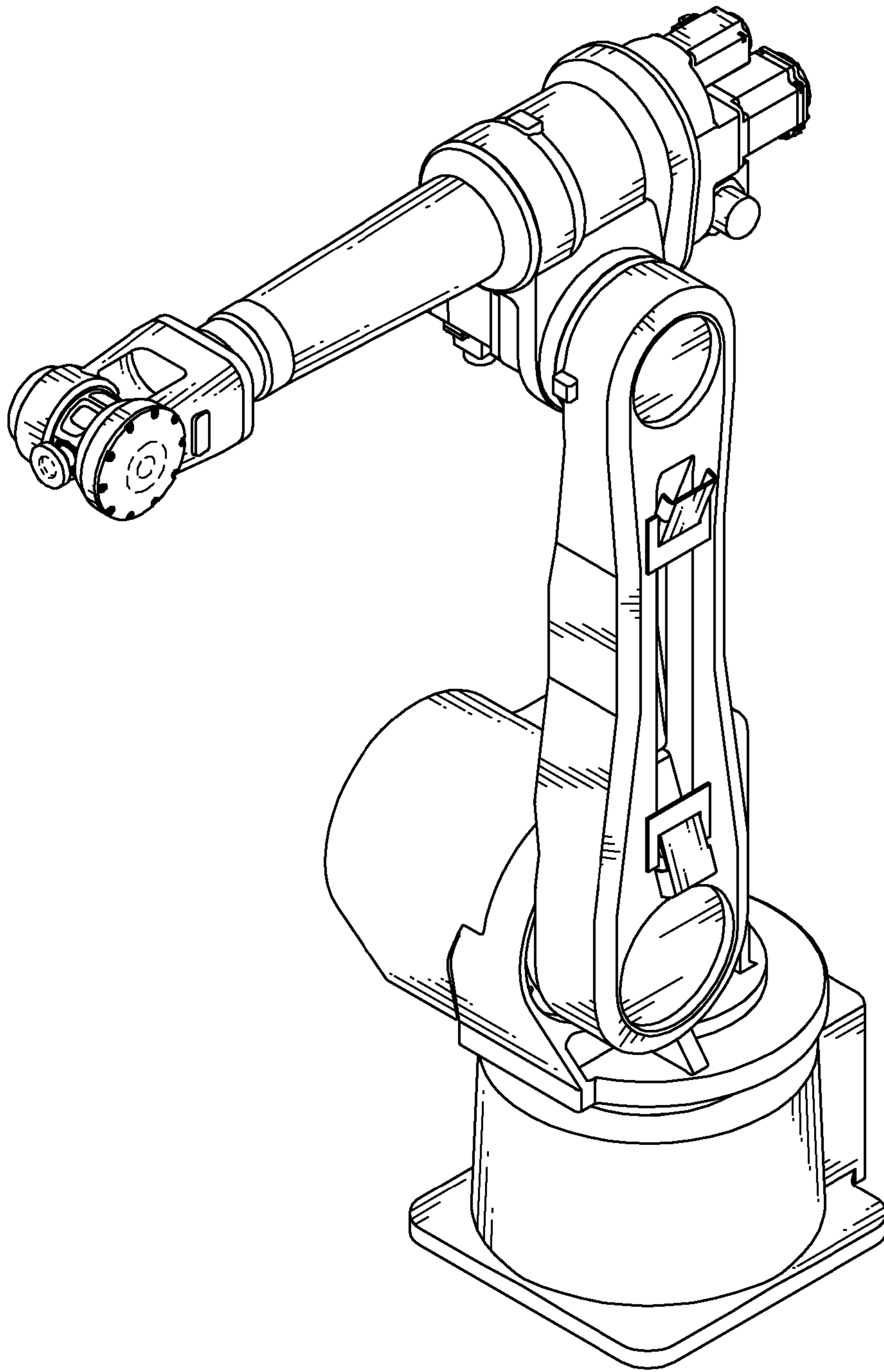


FIG. 1

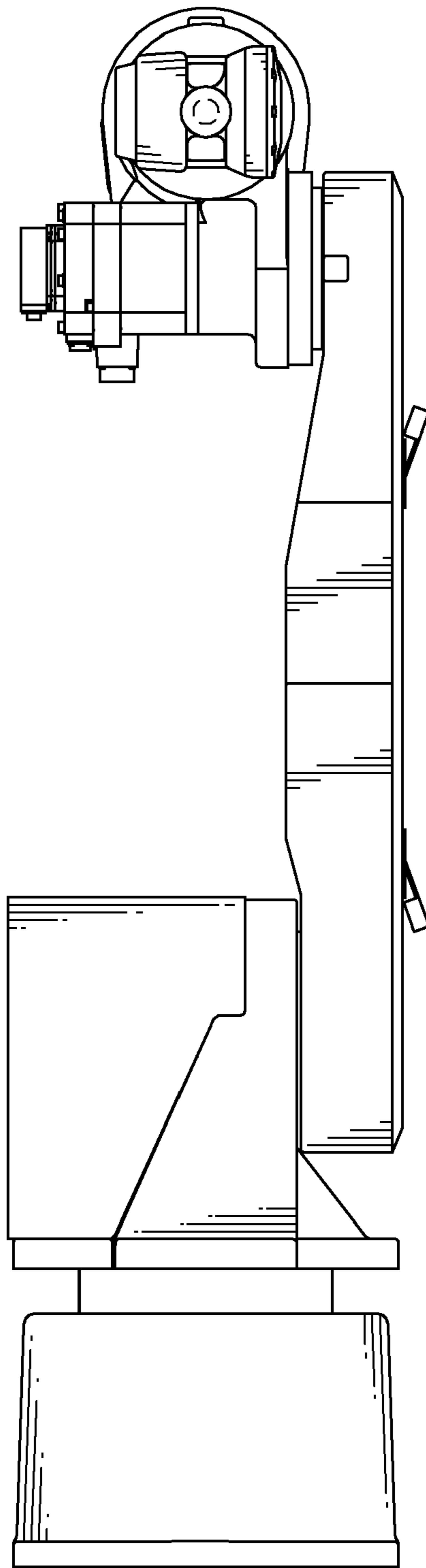


FIG. 2

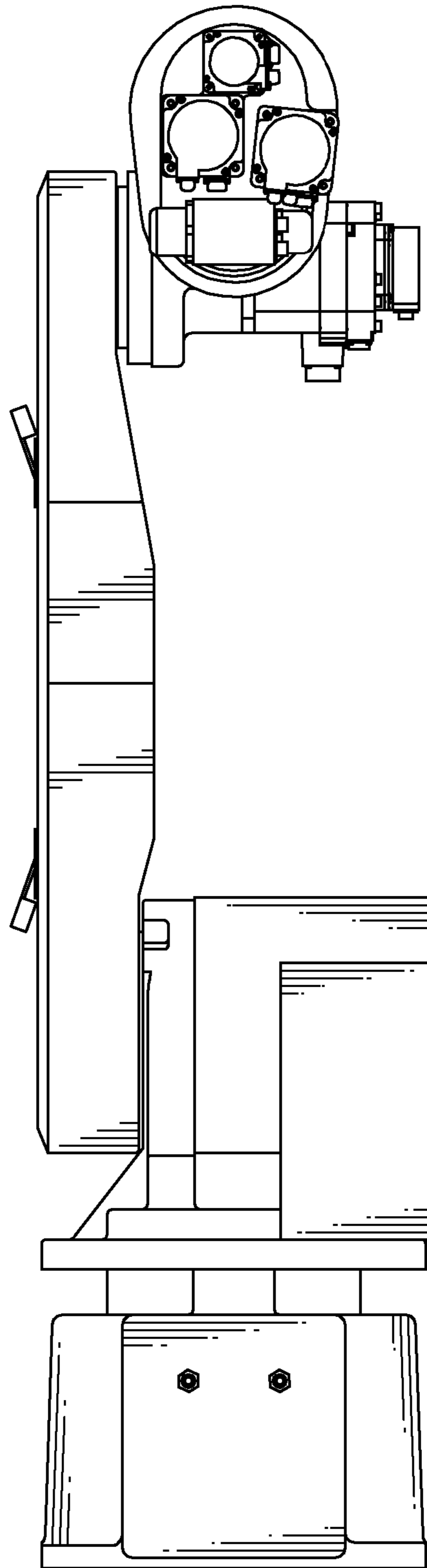


FIG. 3

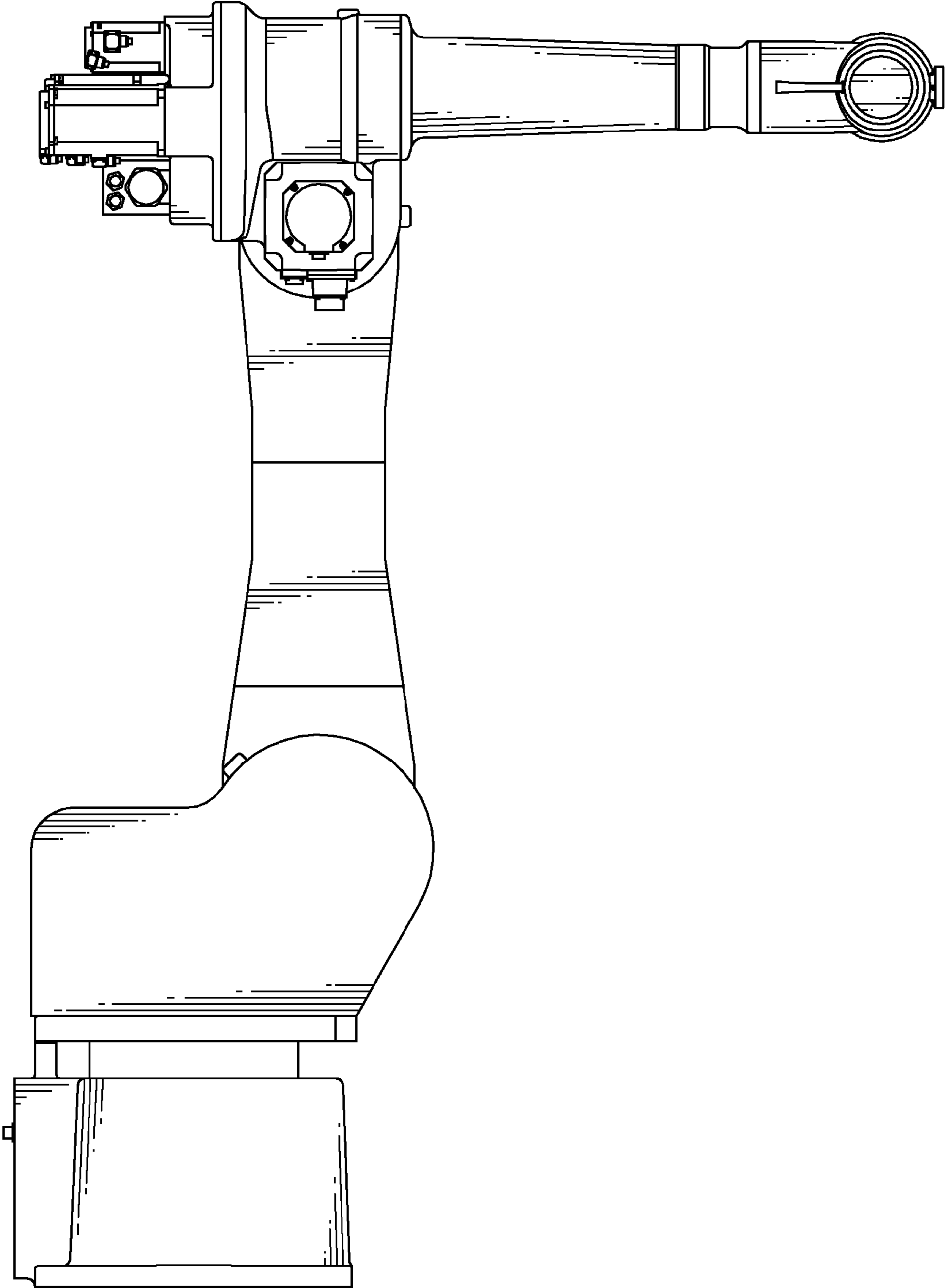


FIG. 4

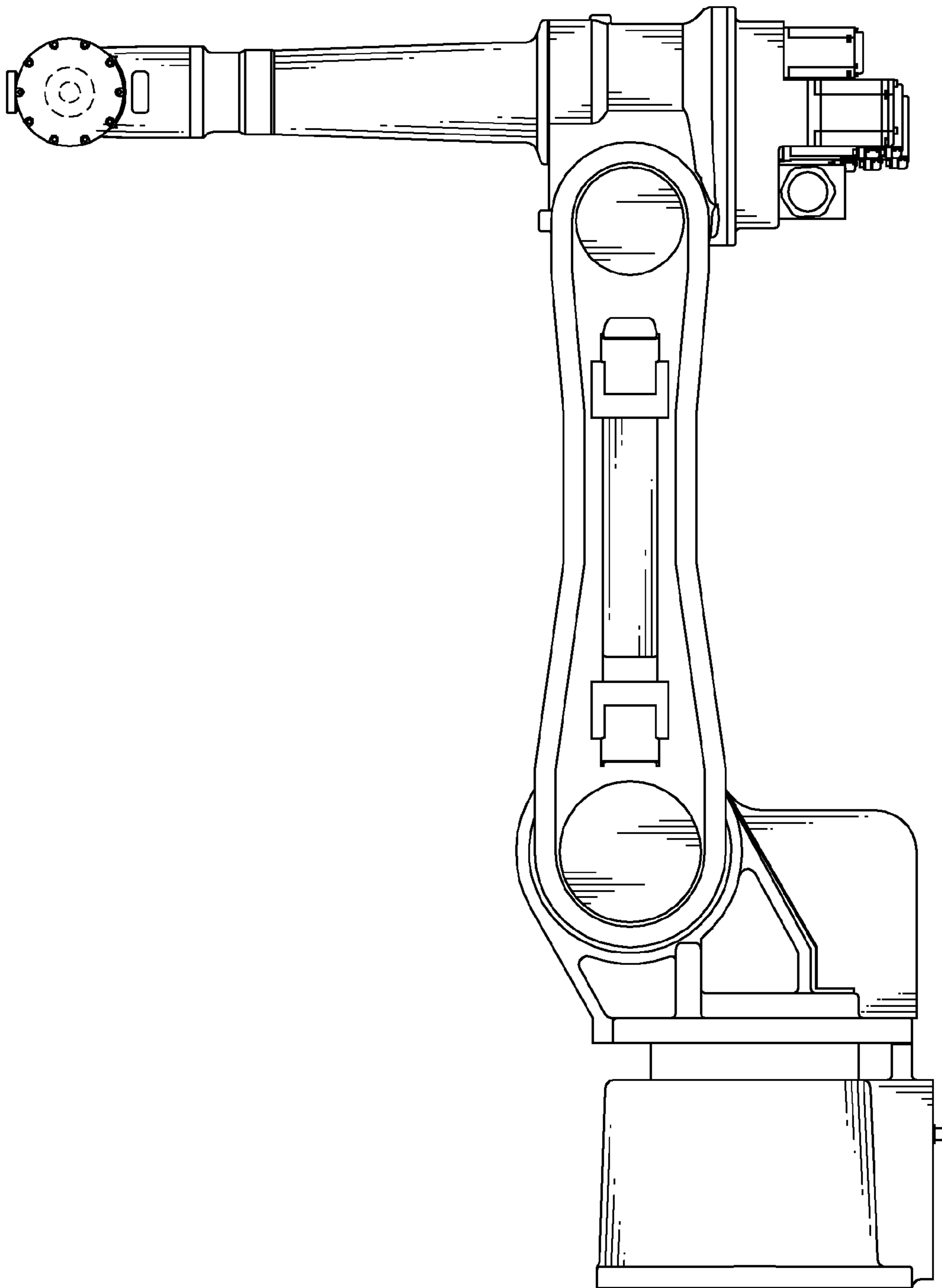


FIG. 5

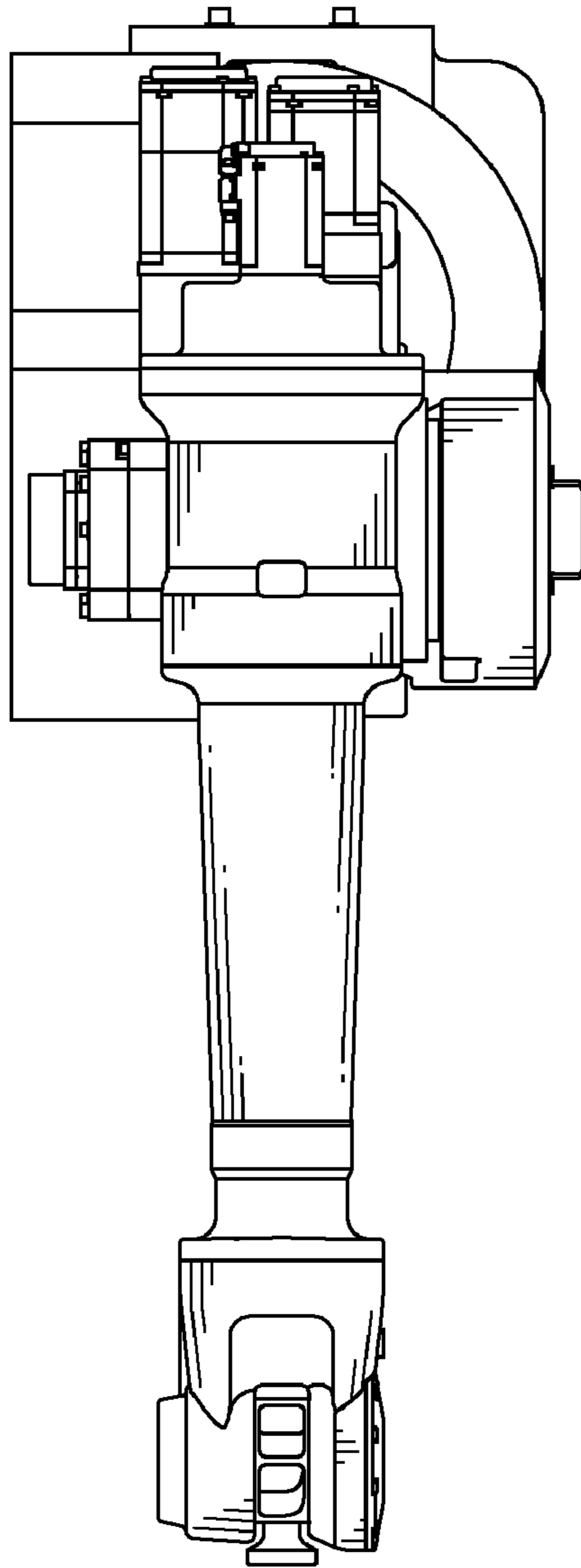


FIG. 6

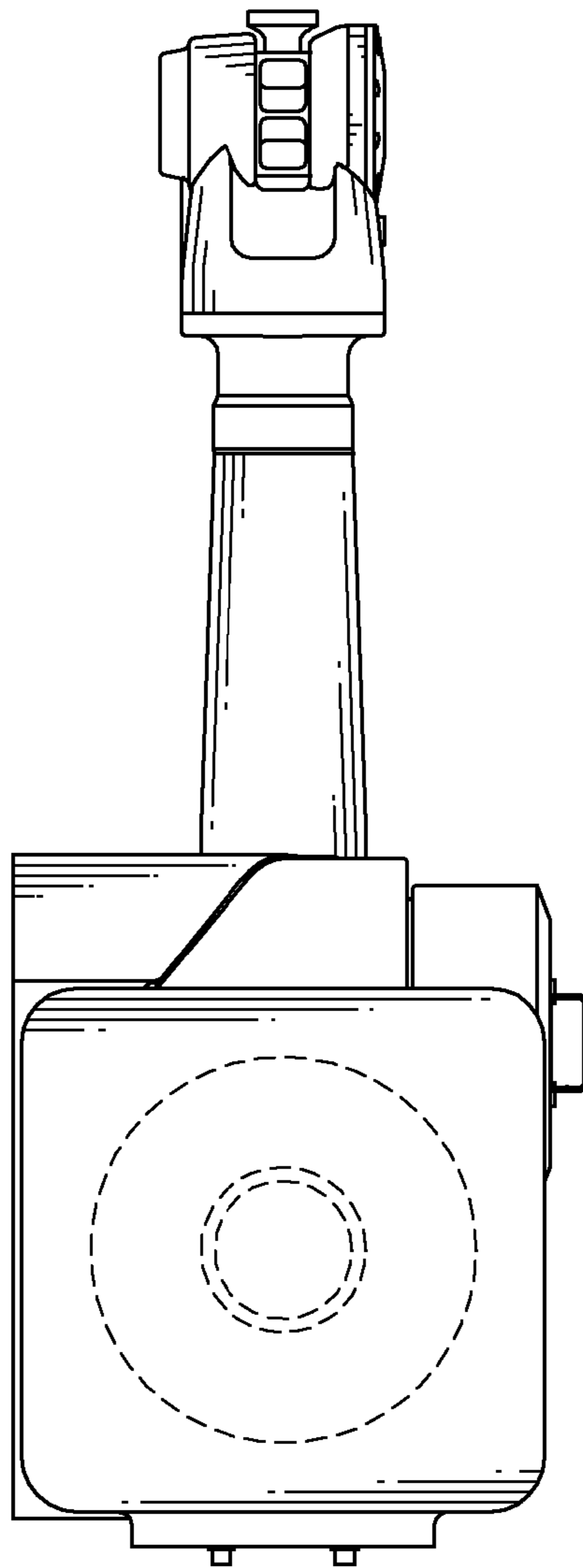


FIG. 7

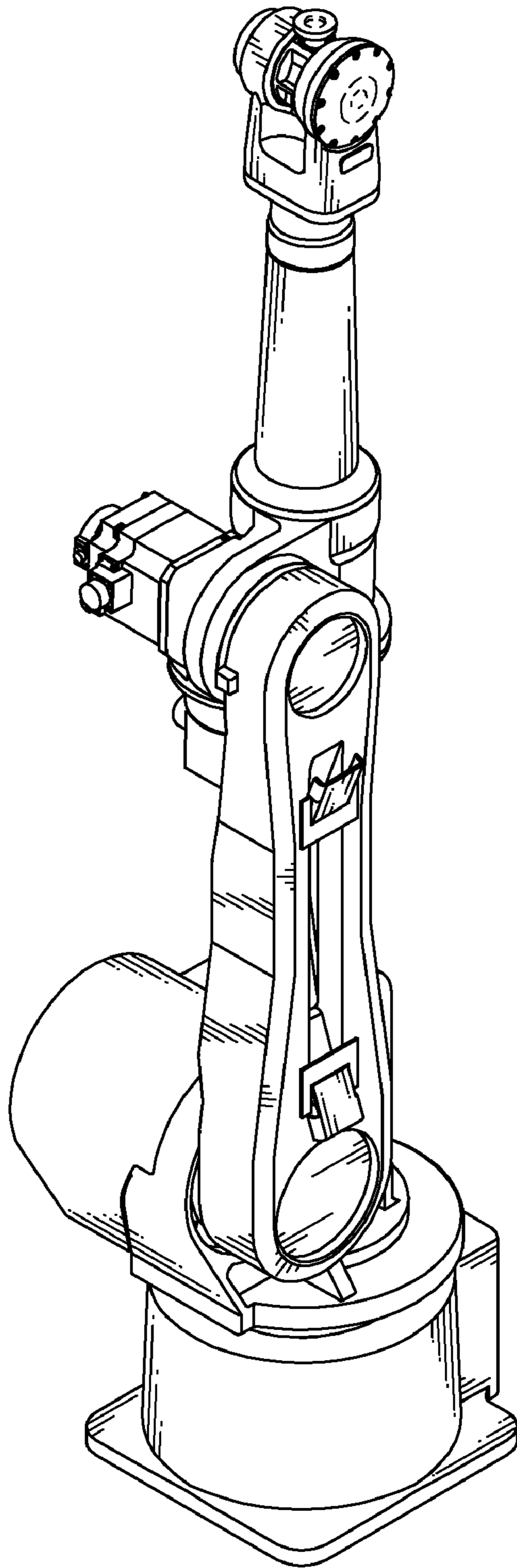


FIG. 8

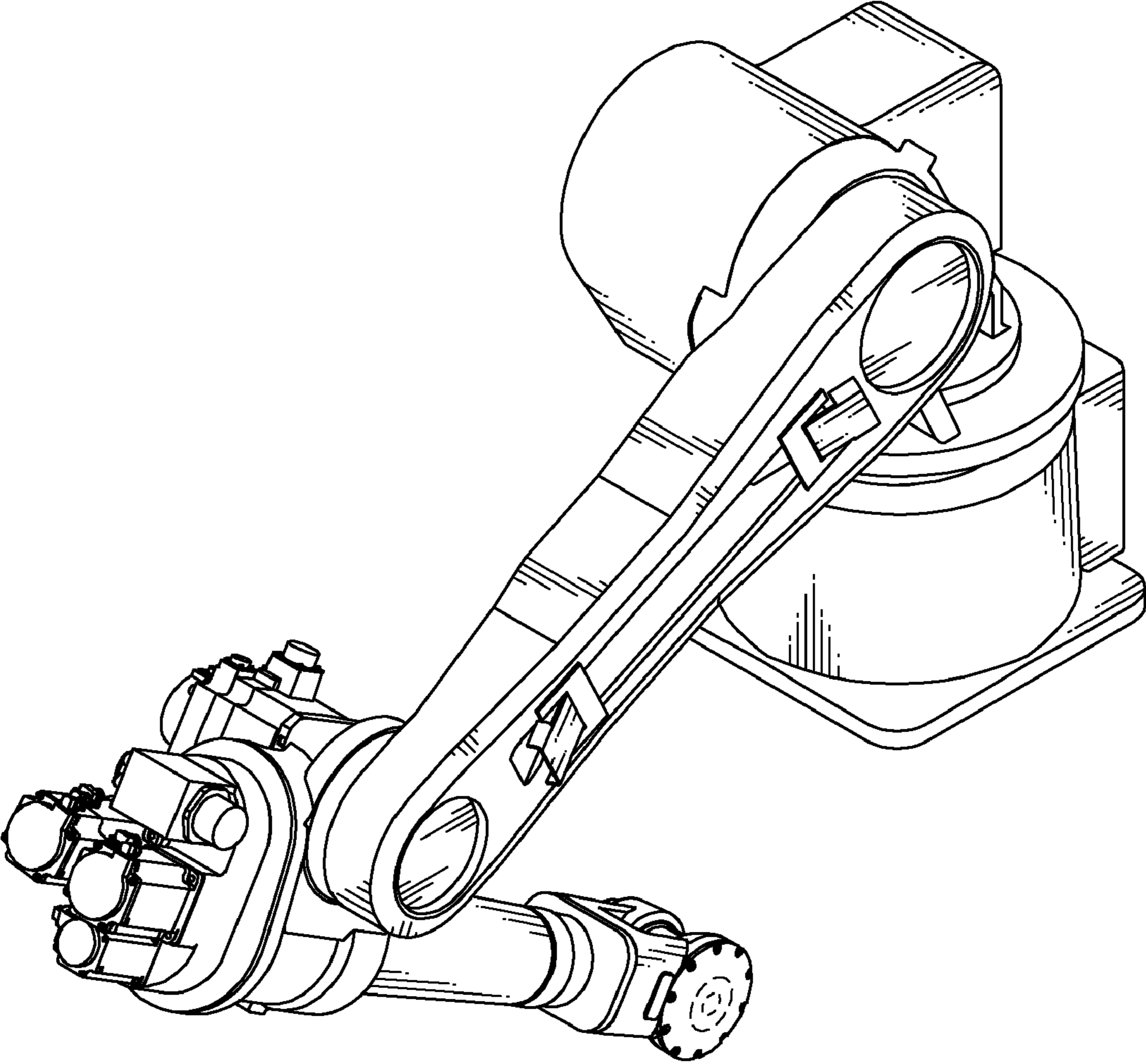


FIG. 9

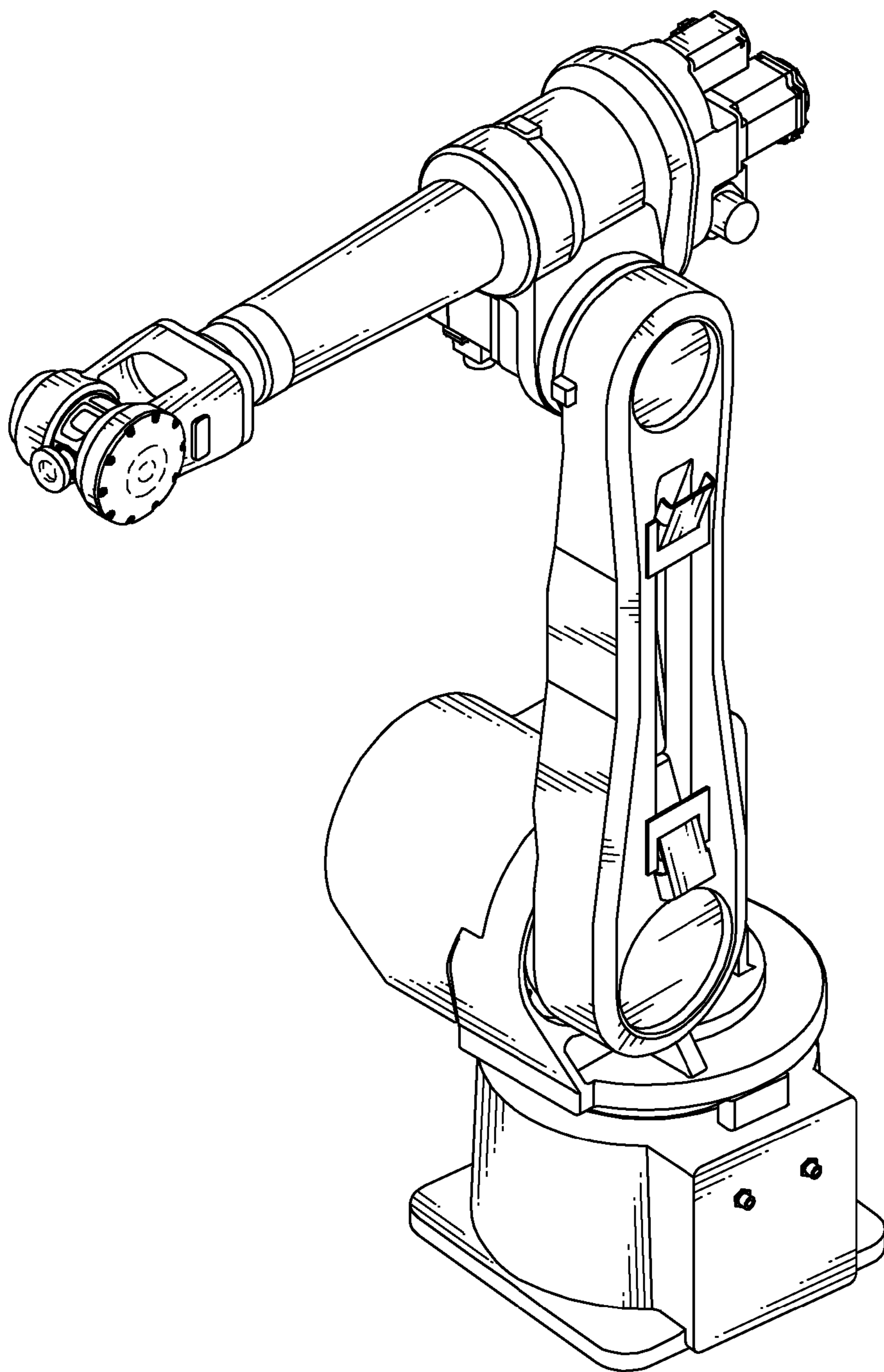


FIG. 10

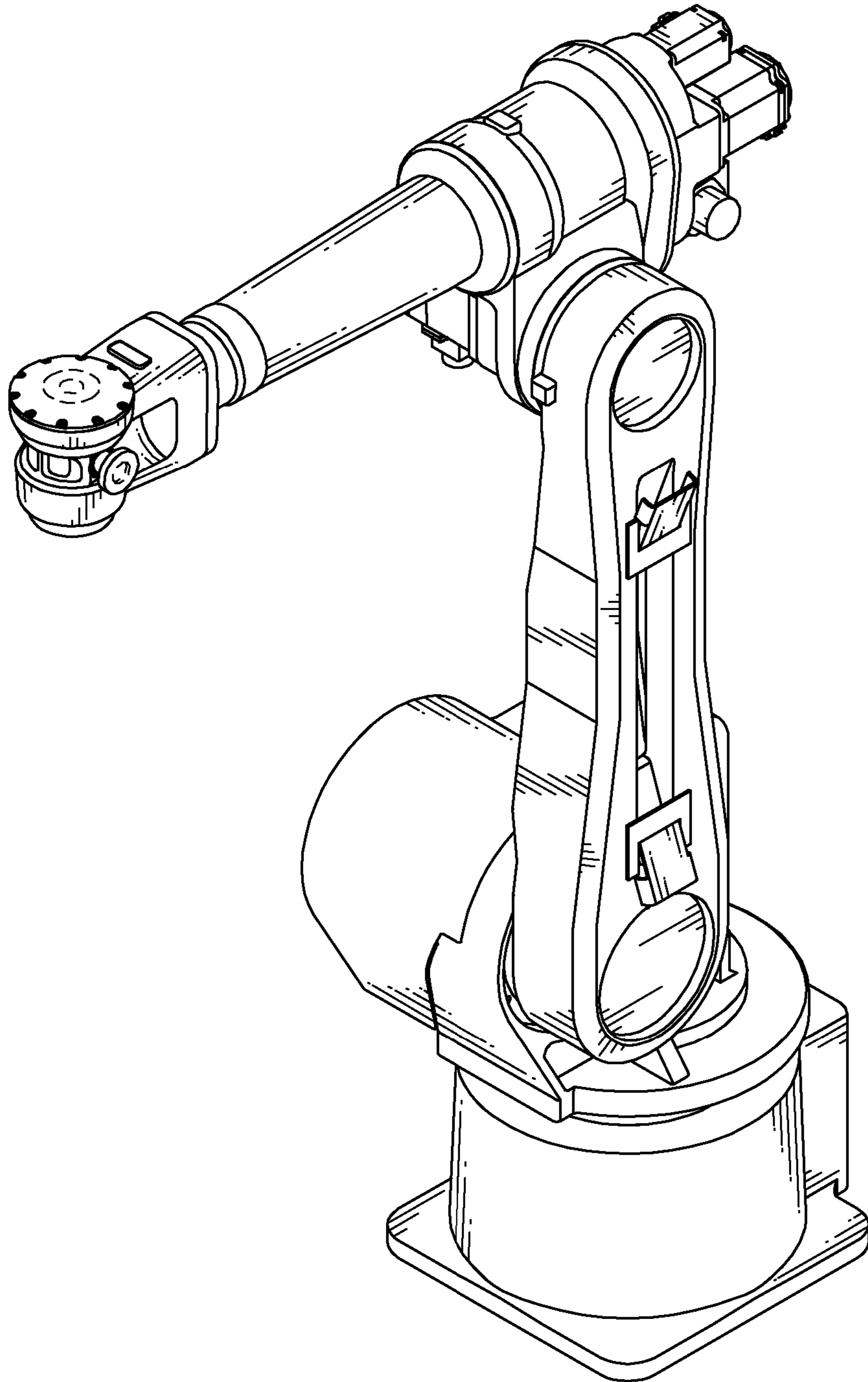


FIG. 11