



US00D638044S

(12) **United States Design Patent**  
**Ikoma et al.**

(10) **Patent No.:** **US D638,044 S**

(45) **Date of Patent:** **\*\* May 17, 2011**

(54) **INDUSTRIAL ROBOT**

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(73) Assignees: **Denso Corporation**, Kariya (JP); **Denso Wave Incorporated**, Tokyo (JP)

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

(21) Appl. No.: **29/379,620**

(22) Filed: **Nov. 22, 2010**

(30) **Foreign Application Priority Data**

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May 24, 2010 (JP) ..... 2010-12685

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

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

(58) **Field of Classification Search** ..... D15/122,  
D15/199; D24/176; 74/490.01, 490.02,  
74/490.03, 490.05; 219/124.34, 639; 318/560;  
700/150

See application file for complete search history.

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(57) **CLAIM**

The design for an industrial robot, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of an industrial robot of a new design; FIG. 2 is a back view of the industrial robot shown in FIG. 1; FIG. 3 is a left side view of the industrial robot shown in FIG. 1;

FIG. 4 is a right side view of the industrial robot shown in FIG. 1;

FIG. 5 is a top view of the industrial robot shown in FIG. 1;

FIG. 6 is a bottom view of the industrial robot shown in FIG. 1;

FIG. 7 is a front perspective view of the industrial robot shown in FIG. 1;

FIG. 8 is a front view of a second embodiment of the industrial robot;

FIG. 9 is a front view of an industrial robot of a new design;

FIG. 10 is a back view of the industrial robot shown in FIG. 9;

FIG. 11 is a left side view of the industrial robot shown in FIG. 9;

FIG. 12 is a right side view of the industrial robot shown in FIG. 9;

FIG. 13 is a top view of the industrial robot shown in FIG. 9;

FIG. 14 is a bottom view of the industrial robot shown in FIG. 9;

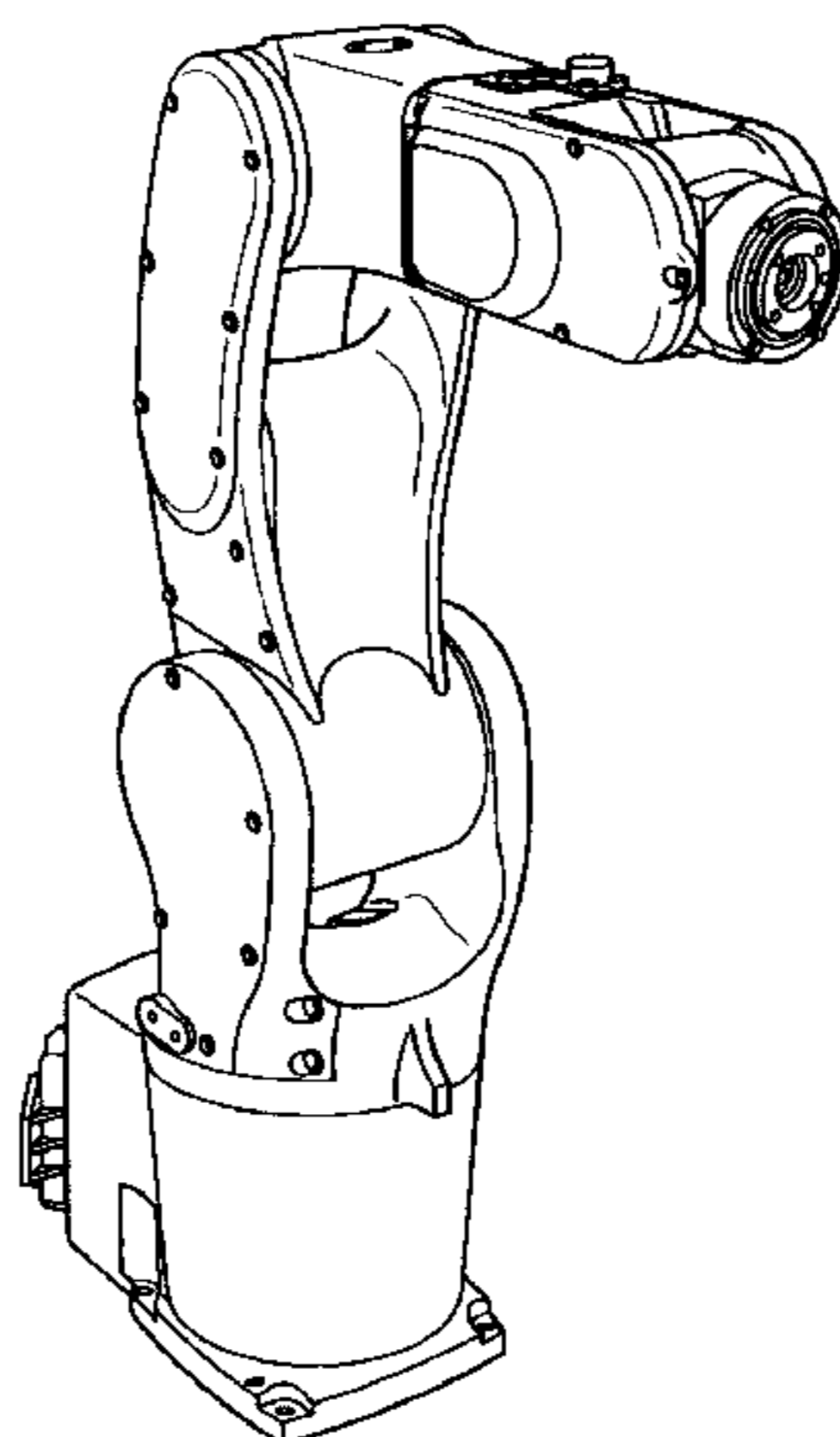
FIG. 15 is a front perspective view of the industrial robot shown in FIG. 9; and,

FIG. 16 is a rear perspective view of the industrial robot shown in FIG. 9.

The article of the present designs relate to an industrial robot having multi-joints capable of performing various processing operations.

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

**1 Claim, 14 Drawing Sheets**



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FIG. 1

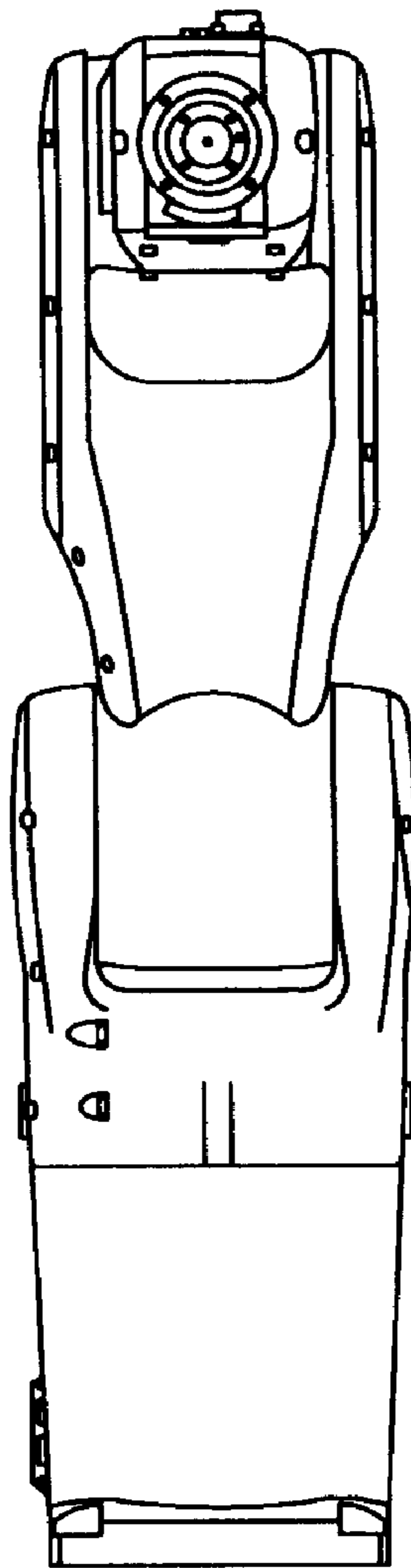


FIG. 2

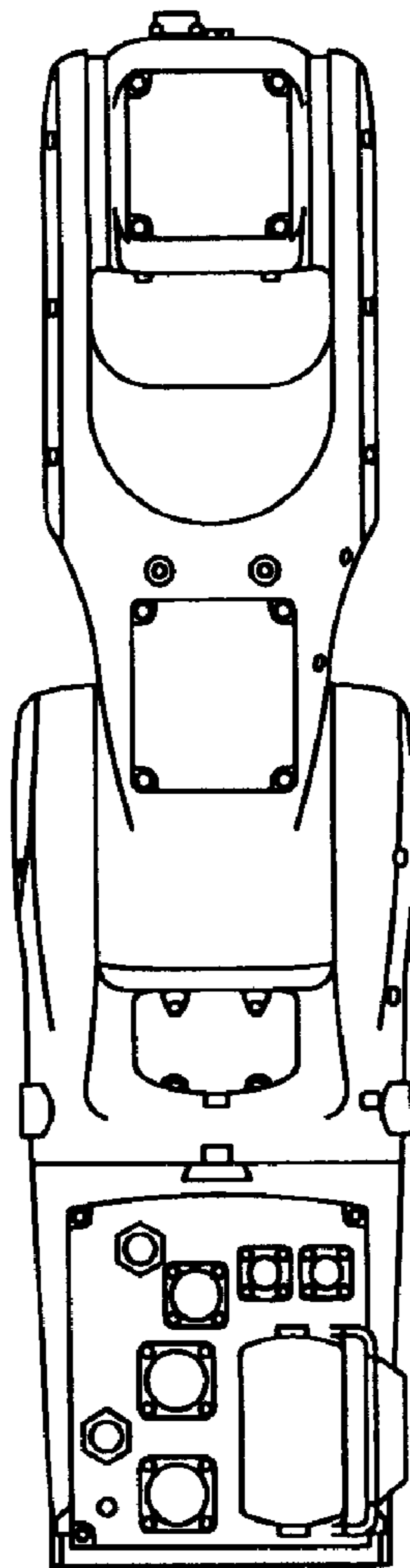


FIG. 3

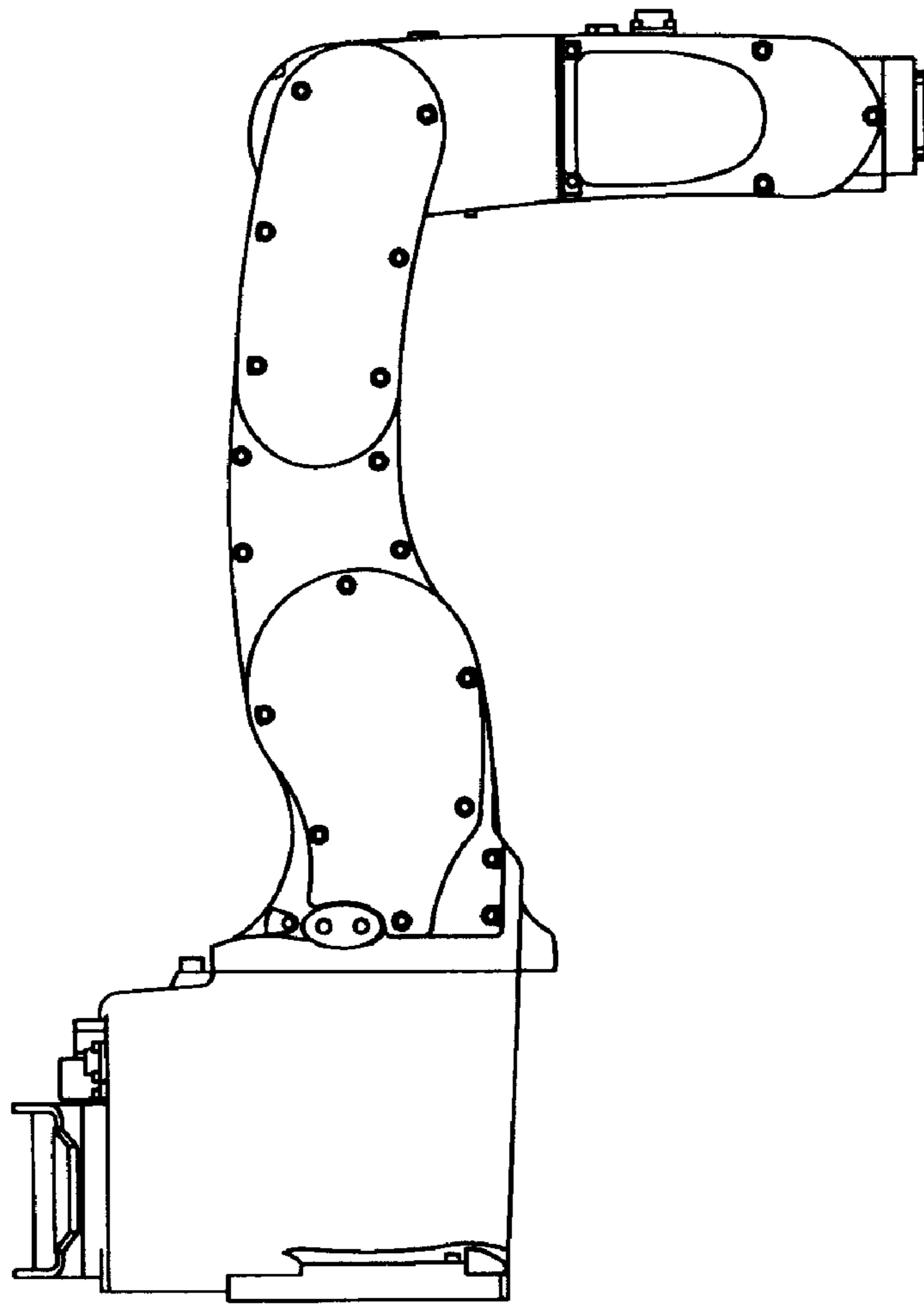


FIG. 4

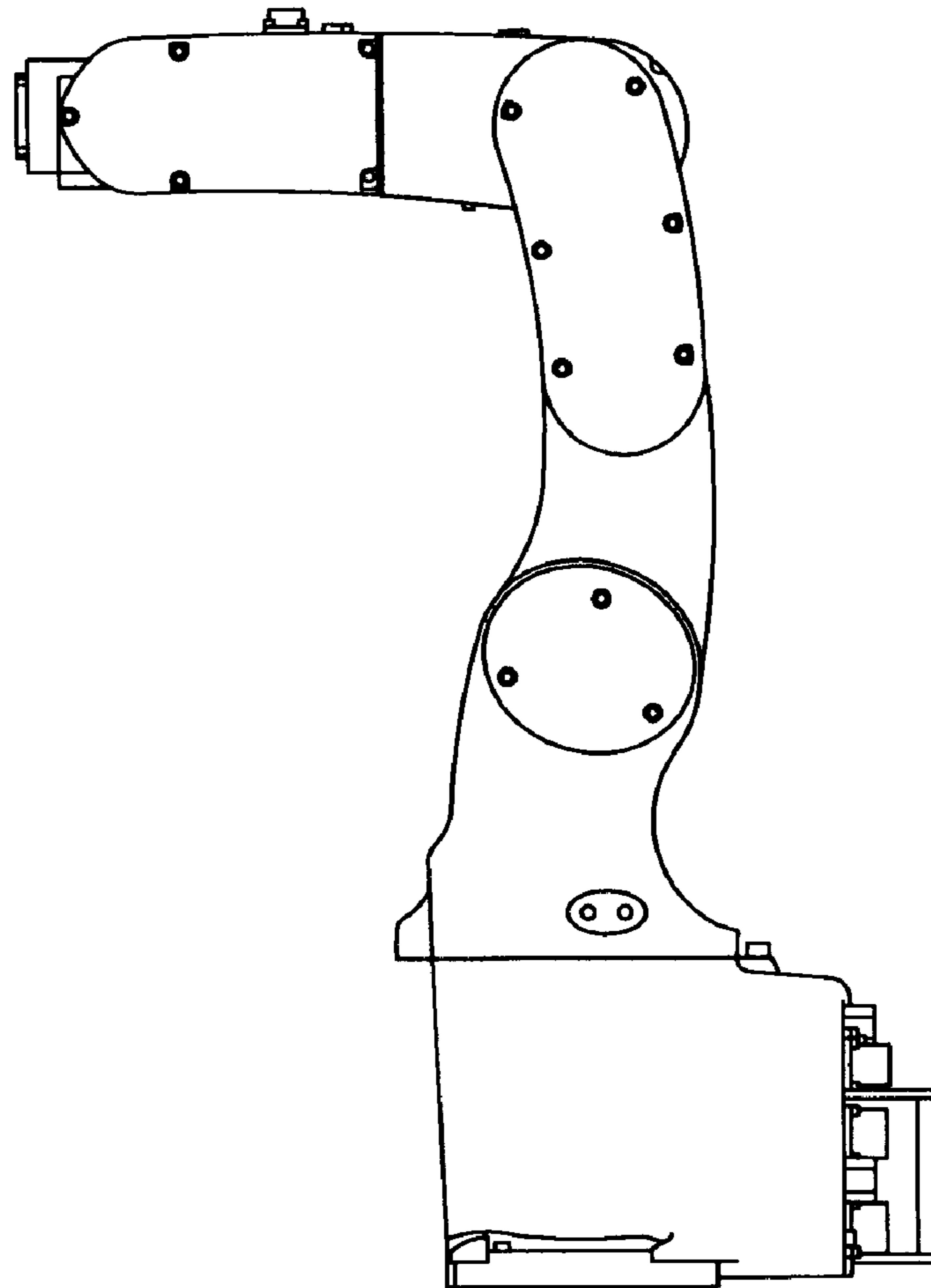


FIG. 5

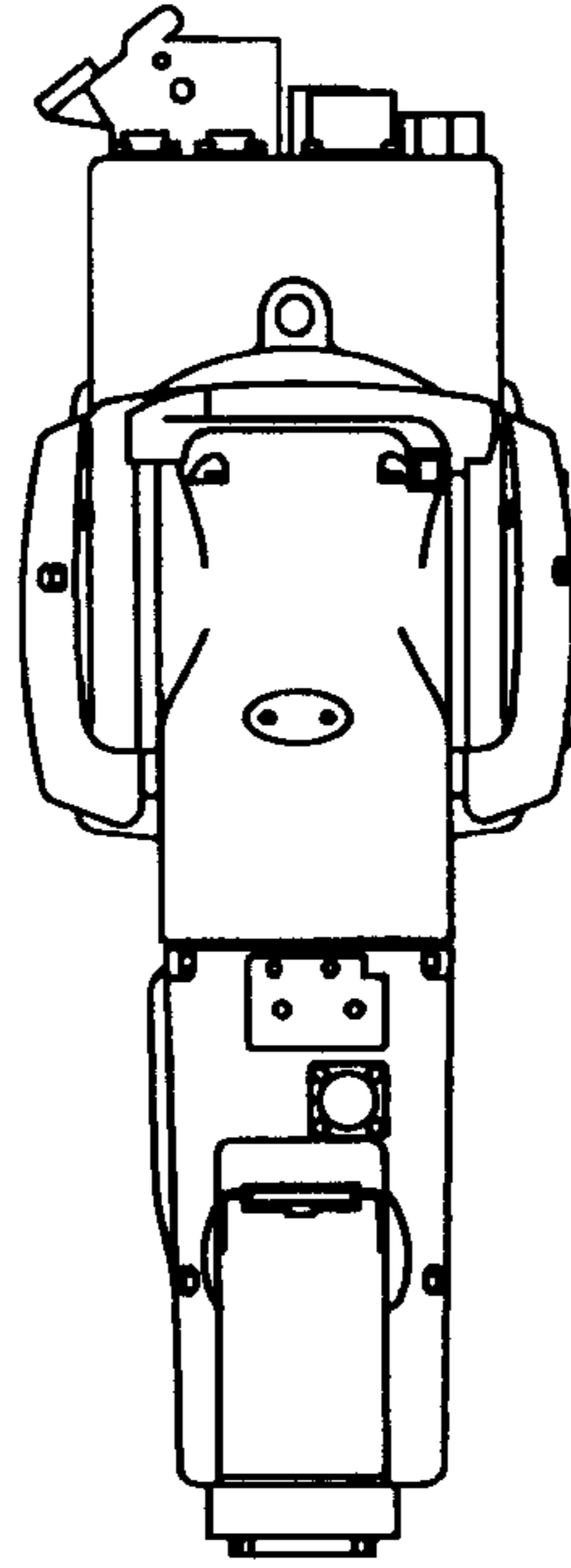


FIG. 6

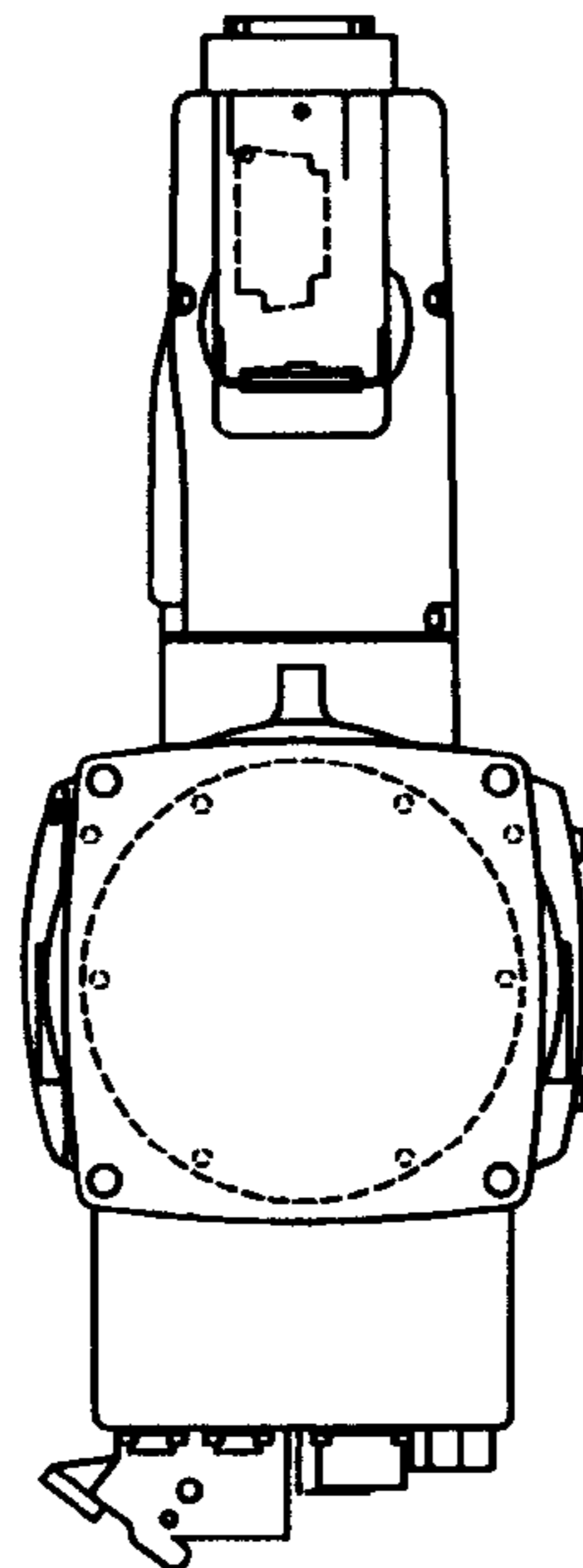


FIG. 7

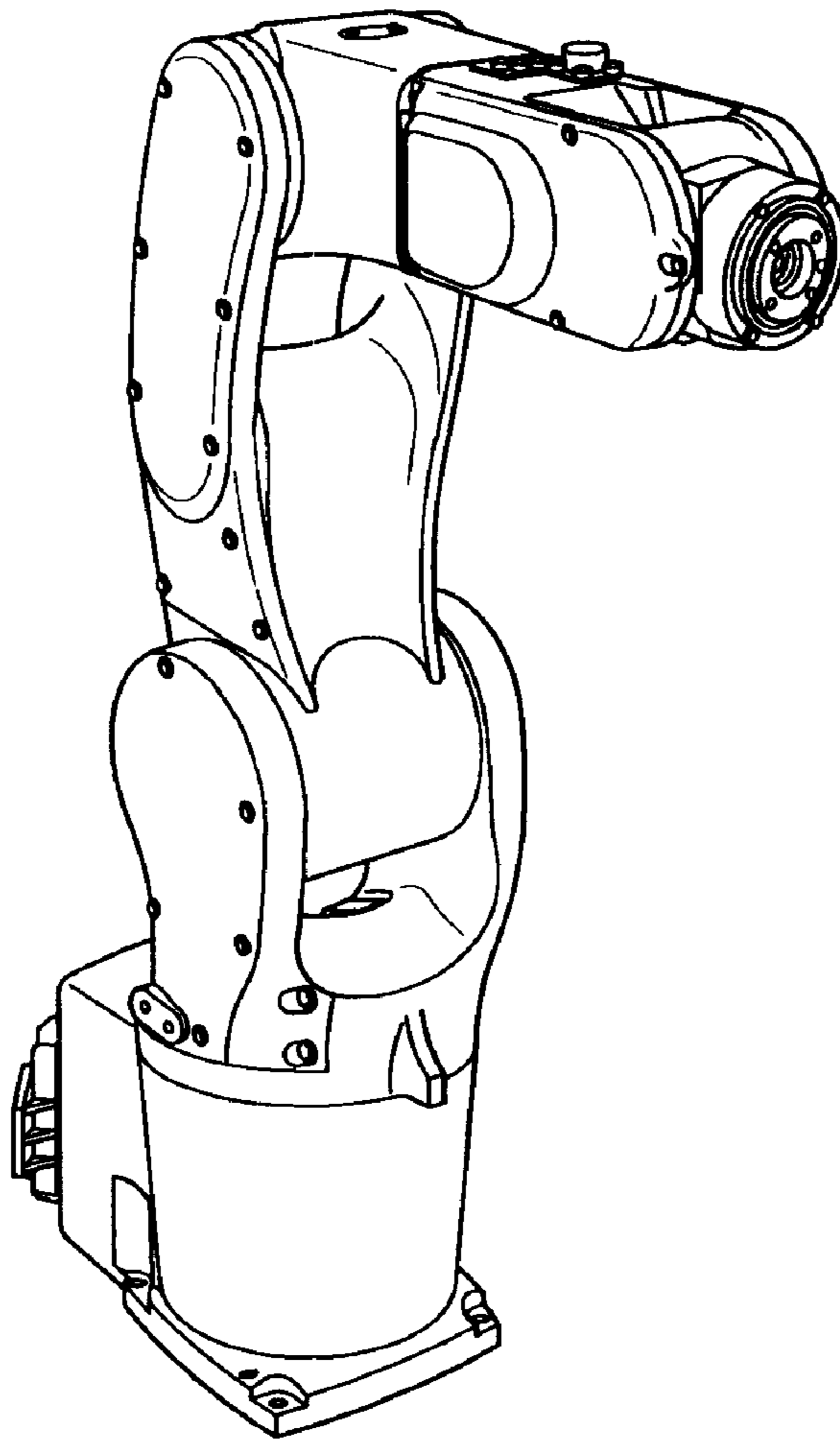




FIG. 8

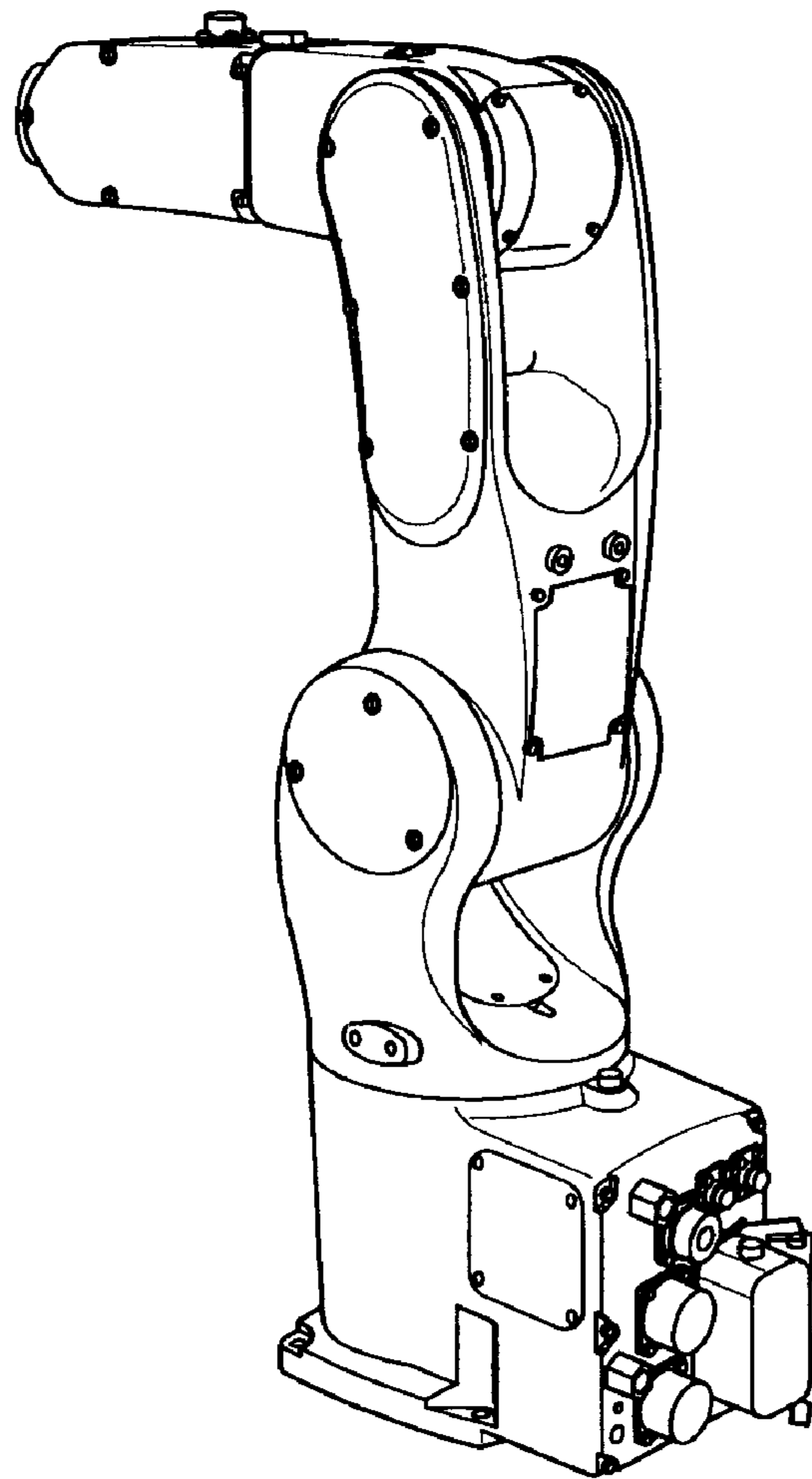


FIG. 9

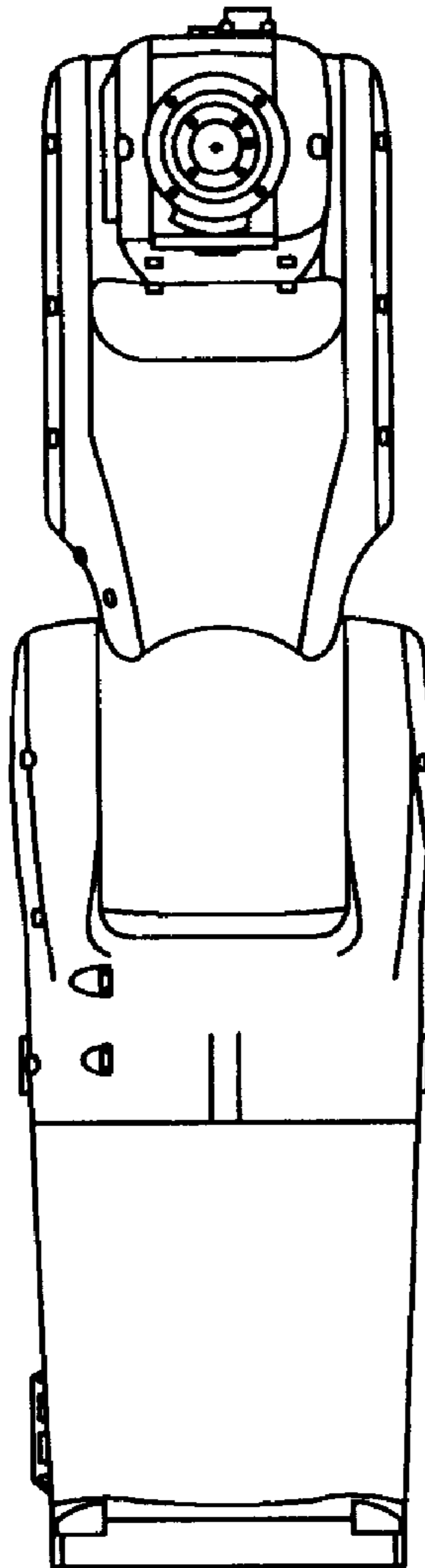


FIG. 10

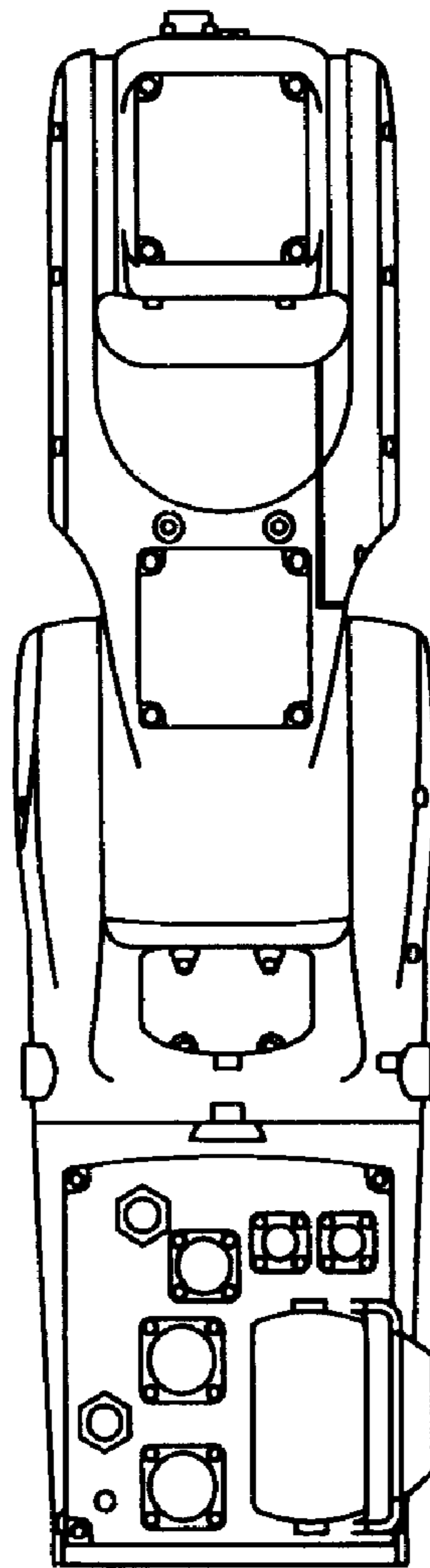


FIG. 11

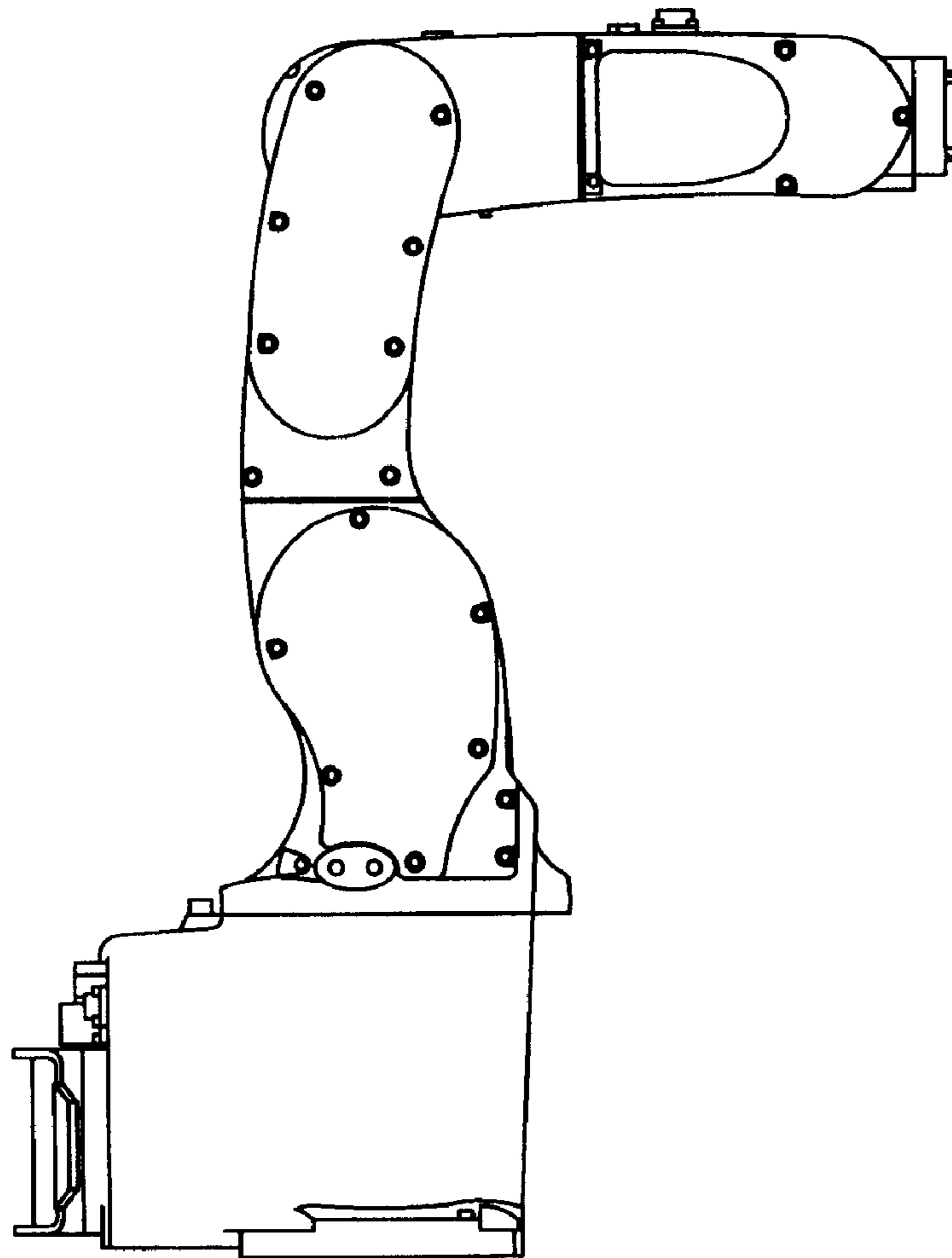


FIG. 12

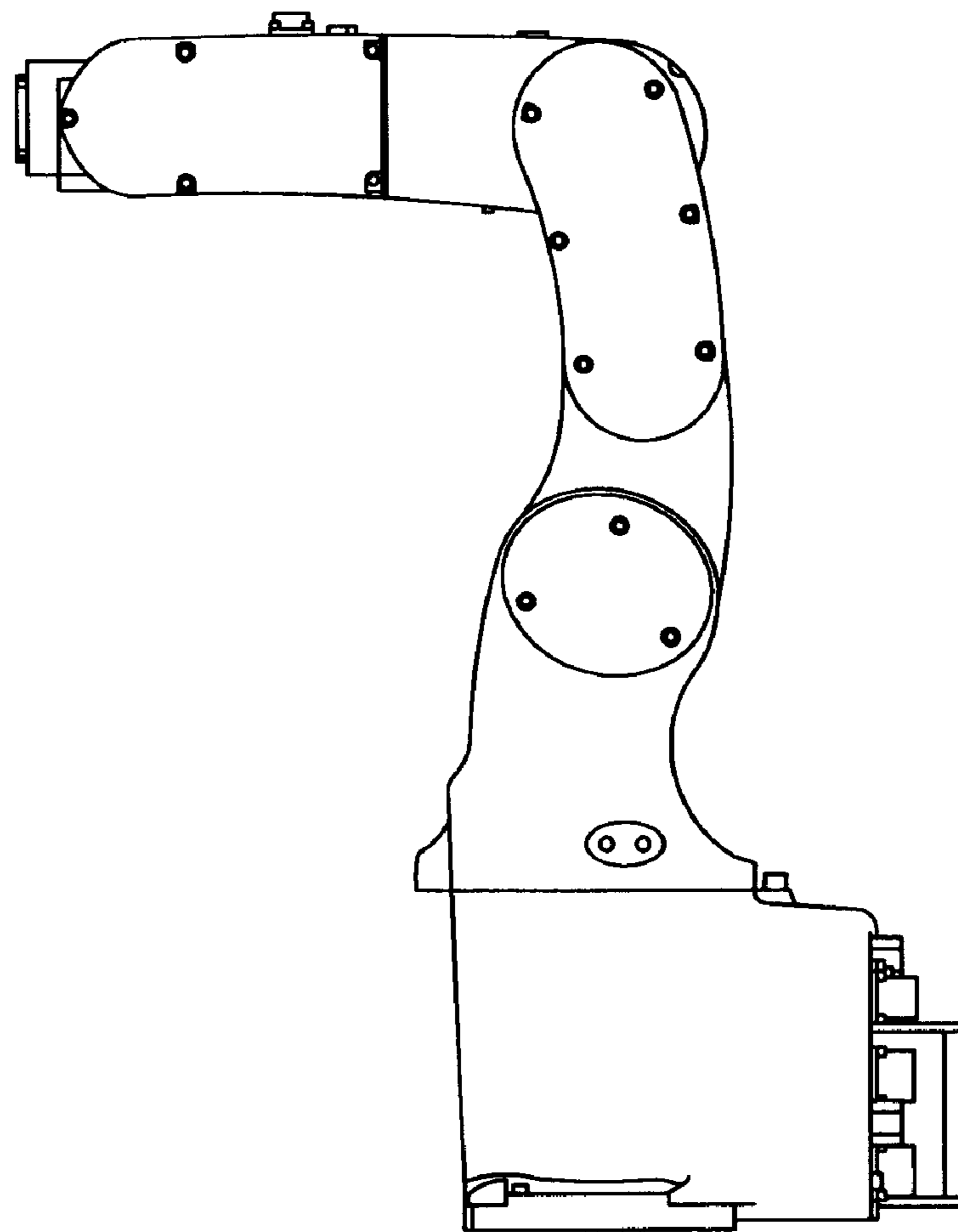


FIG. 13

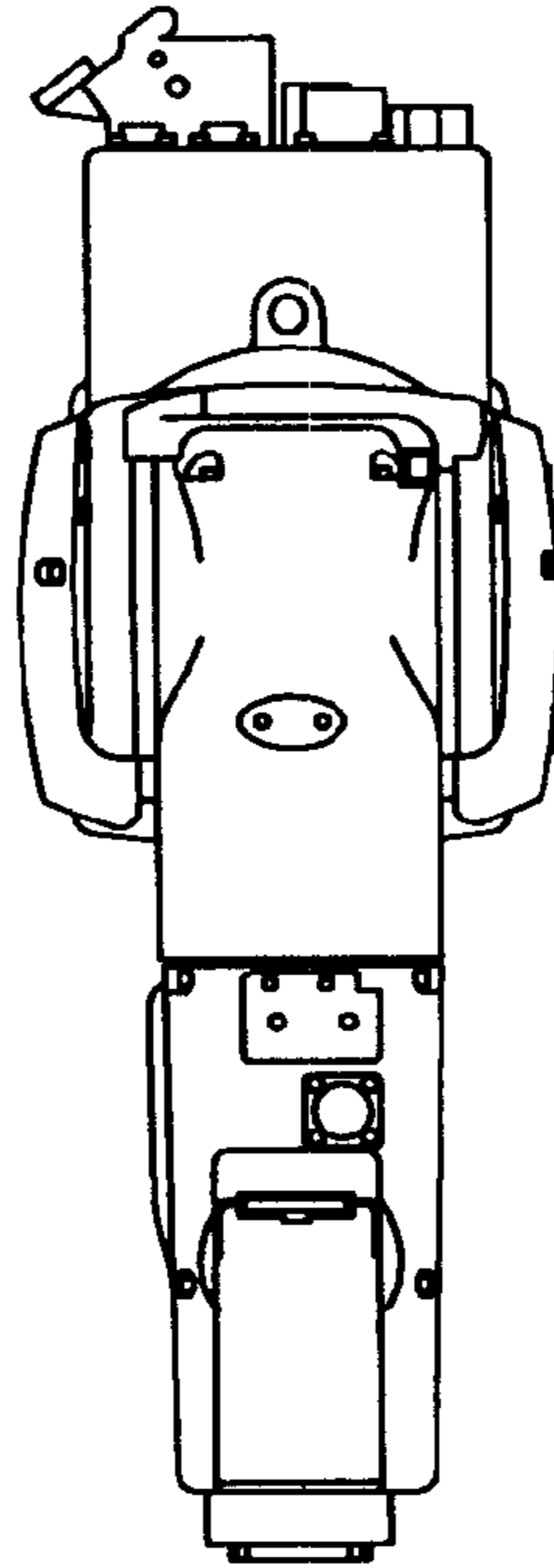


FIG. 14

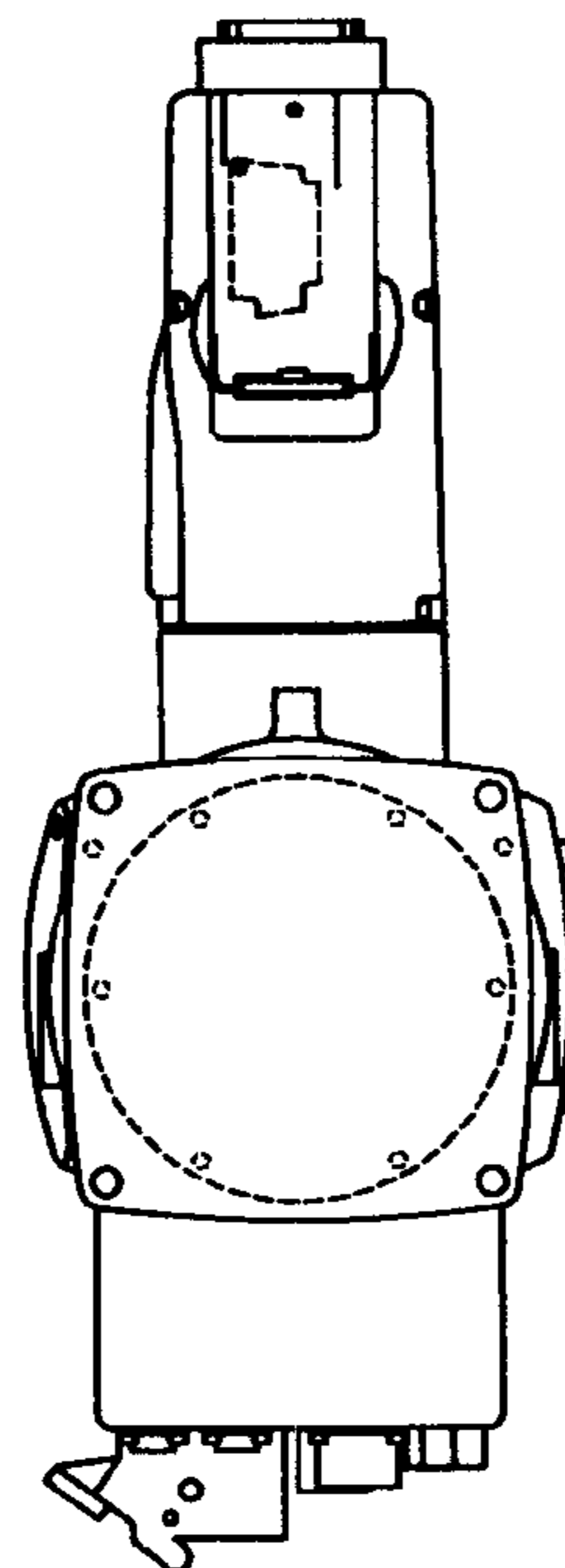


FIG. 15

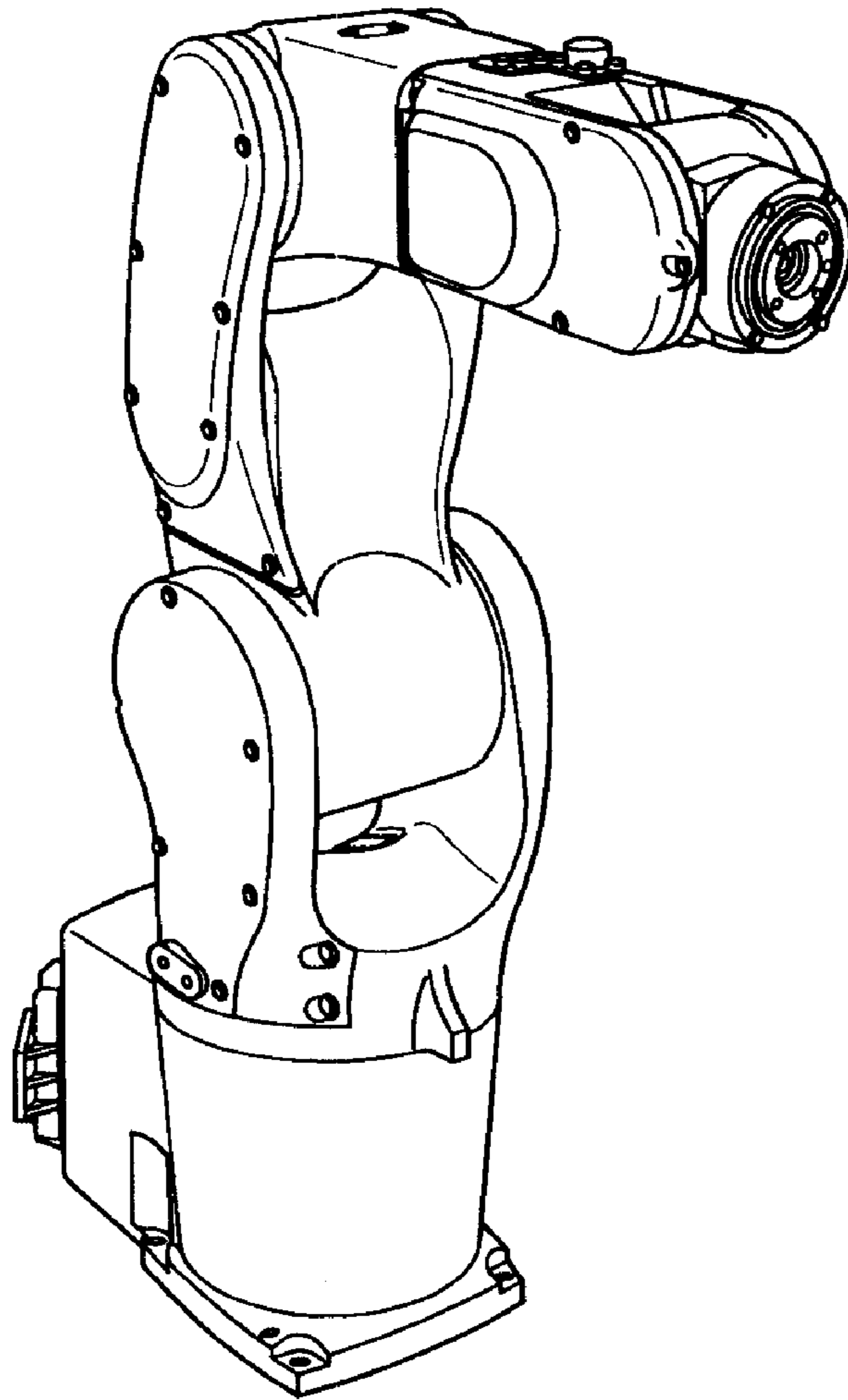


FIG. 16

