

GEMINI ROBOT KITS

Smart Mobile Base Kit Instructions

1. ASSEMBLY INSTRUCTIONS

You will assemble your Smart Mobile Base Kit in three phases as follows:

| <u>PHASE</u> | <u>TASK</u> |
|--------------|-------------------------------|
| 1 | Construction of Subassemblies |
| 2 | Testing of Subassemblies |
| 3 | Final Assembly and Checkout |

Each phase of construction is broken down into several subtasks. These subtasks are ordered so you will start with easy tasks and then progress to more difficult tasks.

Before you commence with Phase I, read the pamphlet entitled, "General Assembly Instructions". This pamphlet contains important general instructions for assembling GEMINI Robot Kits and you should refer to these instructions often as you proceed with construction.

PHASE 1

The order in which to construct the subassemblies is listed below. After you complete the construction of a subassembly, check this item off the list and again review the general instructions. Read each subassembly instruction in its entirety before you commence construction. After construction, all PC Boards should be stored in a safe, static free place until ready for testing.

CONSTRUCTION ORDER

SUBASSEMBLY

- | | |
|---|-------------------------------|
| 1 | Charger |
| 2 | Power Distribution Board |
| 3 | Propulsion Computer |
| 4 | Torso Cable Assembly - Part B |
| 5 | Torso Cable Assembly - Part C |
| 6 | Base Drive Assembly |

PHASE 2

You are now ready to commence with the testing of all subassemblies. Refer to the pamphlet entitled, "Testing and Calibration Procedures" and perform the tests and calibrations in the following order:

TESTING ORDER

INSTRUCTION

- | | |
|---|---|
| 1 | Testing Charger |
| 2 | Testing and Calibration of Power Distribution Board |
| 3 | Testing the Procon (Propulsion Computer) Board |

If you encounter any problems during these tests that you cannot solve, do not proceed to Phase 3. Contact the factory for assistance.

PHASE 3

You are now ready to perform the final assembly and system checks. Refer again to the pamphlet entitled, "Testing and Calibration Procedures" and perform the "Smart Mobile Base - Set-up and Test".

2. OPERATING INSTRUCTIONS

Read SECTION II "PROPULSION SYSTEM", pp 10-22 of the REFERENCE MANUAL. You will note that the propulsion computer software is set up in a command oriented manner. To experiment with these commands, we suggest that you make up a long (20 to 30 feet) RS232 cable to run between your computer and the Smart Mobile Base. Alternatively, if you have a small portable computer with an RS232 port and terminal program (like the Radio Shack (tm) Model 100) you can carry the computer around while giving the base commands.

Before turning on the propulsion computer either with a joystick controller or the CPU SPDT switch, make sure the battery grounds (GND switch OFF) are disconnected.

The Smart Mobile Base and Charging Station can form the foundation of a great robot. It is quite powerful and capable of carrying large loads. You may also wish to purchase additional parts from our GEMINI Robot to help with the construction of yours.

Screws for board mounting holes

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