

Remote Control Mode

In remote control mode, i-SOBOT is operated using the controller's joysticks and buttons. If a program has been inputted using program mode (see P21), that program can be executed.



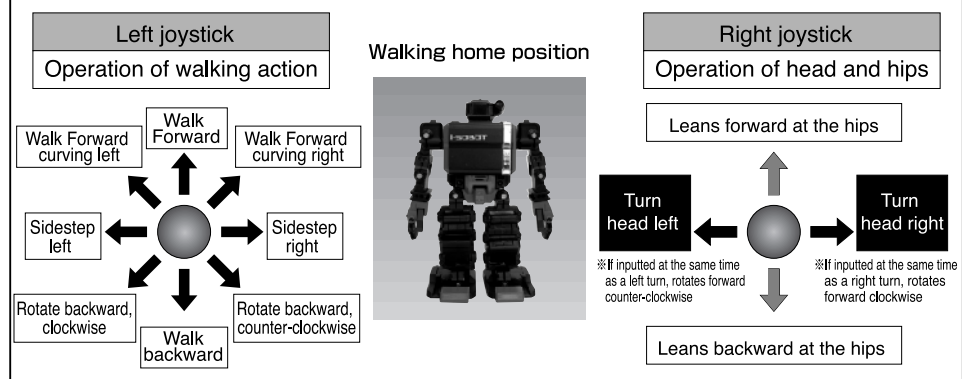
Initial screen in remote control mode

Note: i-SOBOT may not always move in precisely the directions indicated below. For example, for "Walk Forward" i-SOBOT may not walk in a perfectly straight line.

Basic operation using joysticks

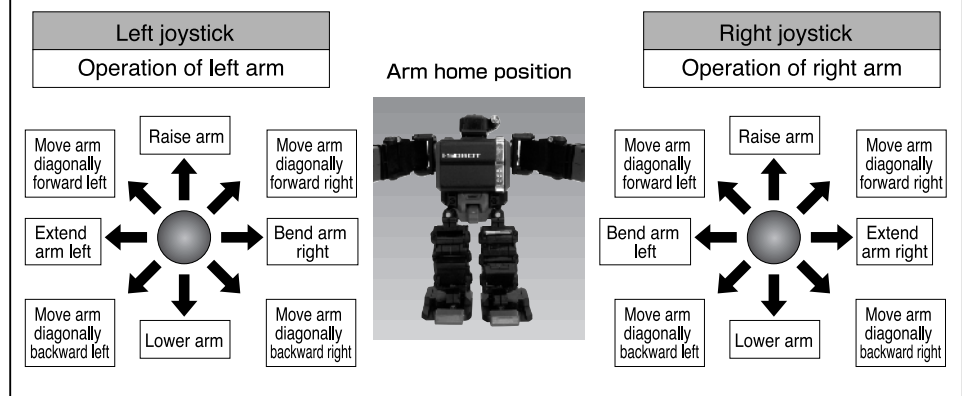
The joysticks ordinarily operate the head, hips and walking action. However, while the R button is pressed, the joysticks operate both arms.

- Normal (R button not pressed): Head, hips and walking action can be operated.



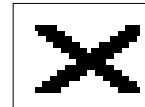
※Pressing the R button switches from standing home position to arm home position.

- R button pressed: Both arms can be operated.



Remote Control Mode

Various actions are performed by inputting combinations of buttons 1,2,3 and 4 with buttons P, K and G. Inputted commands are shown on the controller's display together with an icon. To repeat an action, press the GO button and the action will be performed again. After one action has been completed, input the next action. (If inputted during the previous action, i-SOBOT may fall over. If an invalid button is inputted, an "X" will appear).



Error screen

Martial arts type actions

i-SOBOT is capable of a wide variety of martial arts actions.

Inputting combinations of 1~4 buttons and P button

Action name	Input
Left punch	1 P
Right punch	2 P
Left back hand	3 P
Right back hand	4 P
Left-right one-two punch	1 2 P

Action name	Input
Right-left one-two punch	2 1 P
Left chop	1 1 P
Right chop	2 2 P
Two-handed downward chop	3 3 P
Two-handed upward chop	4 4 P

Action name	Input
Punch combination	1 2 3 4 P
Left back fist oblique dropdown	1 4 P
Right back fist oblique dropdown	2 3 P
Multi-slap	4 3 P
Double backhand	3 4 P

Inputting combinations of 1~4 buttons and K button

Action name	Input
Left roundhouse	1 K
Right roundhouse	2 K
Left forward kick	3 K
Right forward kick	4 K
Left side kick	1 1 K

Action name	Input
Right kick	2 2 K
Left back kick	3 3 K
Right back kick	4 4 K
Left & right roundhouse	3 1 K
Right & left forward kick	4 2 K

Action name	Input
Left-right kick sequence	1 2 K
Right-left kick sequence	2 1 K
Kick combination	1 2 3 4 K
Left high kick	1 3 K
Right high kick	2 4 K
Splits 1	3 4 K

Inputting combinations of 1~4 buttons and G button

Action name	Input
Left guard	1 G
Right guard	2 G
Two-hand guard 1	3 G
Two-hand guard 2	4 G

Action name	Input
Left dodge	1 1 G
Right dodge	2 2 G
Duck	3 3 G

Action name	Input
Backward sway	4 4 G
Up-sweep block	1 2 G
Splits 2	3 4 G
Guard combination	1 2 3 4 G

- Return to standing position from a prone position

If i-SOBOT is lying down or has fallen over, press A button or B button.

Caution ※Do not press if i-SOBOT has not fallen over.

Status	Action name	Input
If fallen forward	Stand up 1 (from a face down position)	A
If fallen backward	Stand up 2 (from a face up position)	B

- Zero Position

The zero position will be held until the user inputs the next action. To release, press the HP/Cancel button.

This is i-SOBOT's tuning and adjustment position. It is not normally used. For details, refer to P29 "How to Make Adjustments".

Remote Control Mode

● Common Phrases & Greetings

These actions are input with a combination of 1~4 buttons and the A buttons.

Action name	Input	Action name	Input	Action name	Input
Affirm	1 A	Greet 4	2 3 A	Respect	1 1 A
Disagree	4 A	Bye 1	3 1 A	Thanks 1	4 1 A
Good Morning	1 2 A	Bye 2	3 2 A	Thanks 2	4 2 A
Greet 1	1 3 A	Bye 3	3 3 A	Love 1	1 1 1 A
Greet 2	2 1 A	Bye 4	3 4 A	Love 2	2 2 2 A
Greet 3	2 2 A	Bye 5	1 4 A	Love 3	3 3 3 A

● Emotional Actions

These actions are input with a combination of 1~4 buttons and the B button.

Action name	Input	Action name	Input	Action name	Input
Excited 1	1 4 B	Regret 1	2 4 B	Beg 1	4 1 B
Excited 2	2 1 B	Regret 2	3 3 B	Beg 2	1 1 3 B
Excited 3	2 2 B	Regret 3	3 4 B	Merry	1 2 1 B
Excited 4	1 2 2 B	Worry	3 2 B	Hilarious	1 3 4 B
Party	1 3 B	Pain 1	4 2 B		
Amazed	1 2 4 B	Pain 2	4 4 B		

● Showcase Actions

These actions are input with a combination of 1~4 buttons and the A, B and K buttons.

Action name	Input	Action name	Input	Action name	Input
Hide N Seek	3 1 B	Too Sexy	2 1 2 B	Show Off 3	2 3 4 B
You Like?	1 2 4 A	Clink	2 1 3 B	Show Off 4	2 4 1 B
Mystery 5	1 3 1 A	Relax	2 2 1 B	Comin' Through	2 4 2 B
Tipsy	1 3 2 A	Soccer 1	2 2 3 B	Catch	2 3 B
Tickle Me i-SOBOT	1 4 1 B	Soccer 2	4 2 K	Pose 1	4 1 1 A
Tired Feet	1 4 2 B	Soccer 3	3 1 K	Pose 2	4 1 2 A
Need a Break	1 4 3 B	Lift	2 2 2 B	Pose 3	4 1 3 A
Wave 1	1 4 4 B	Count on Me	2 2 4 B	Mystery 1	1 2 3 B
Wave 2	2 1 1 B	Articulation	2 3 1 B	Mystery 2	1 3 1 B
Applause	1 3 3 B	Show Off 1	2 3 2 B	Mystery 3	1 3 2 B
I'm So Excited	1 1 4 B	Show Off 2	2 3 3 B	Mystery 4	4 3 B



Note

※ Some commands have multiple actions so the same command may not elicit the same response every time.

Remote Control Mode

Locking the position of the arms

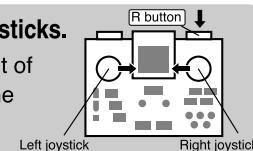
When operating the arms using the joysticks, pressing the L button will record the position of the arms and lock them in place. If a walking position is performed using the left joystick, i-SOBOT is able to walk while maintaining the arm position. To release the arms, press the R button once and then press the L button.

● Walking with arms locked in preferred position.

Here is one example of operation with the arms in a locked position using the L button.

1 While pressing the R button, move the arms using the joysticks.

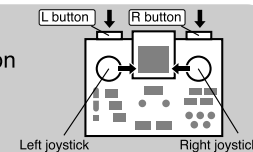
Ordinarily, the joysticks control walking actions and movement of the head and hips. However, while the R button is pressed, the joysticks can be used to operate the arms.



1

2 Lock the arms in the preferred position.

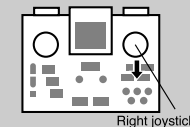
When the arms are in the preferred position, press the L button to lock the arms in position.



2

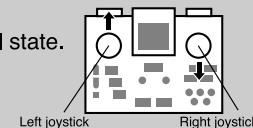
3 Walk using the left joystick while maintaining the arm position.

After releasing the R button, use the joystick to walk in whichever direction you like.



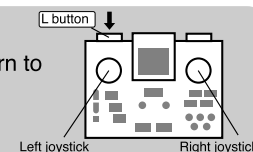
3

4 Afterwards, press the R button and the arms will be in Control state. At this stage, the position of the arms is still locked.



4

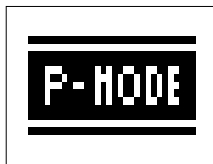
5 Press the L button and the arms will be released and will return to their home position.



5

Program Mode

In program mode, action patterns can be inputted and combined from remote control mode (except for some actions) and special action mode, allowing for more complicated action patterns to be programmed. One action sequence can be programmed into each of the three memories, designated by the M1~M3 buttons. Each memory is made up of 80 memory blocks, with each block usually equivalent to one action, except for arm actions, which require two blocks per arm movement. The three memories can be combined for a total of up to 240 actions (less if arm movements are programmed).



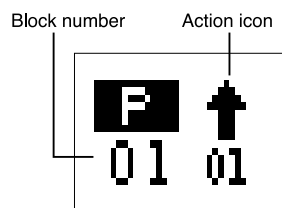
Initial screen in program mode

Note ※ Actions “Stand up 1” and “Stand up 2” in remote control mode are for use when i-SOBOT has fallen over and cannot be used in program mode.

Programming procedure

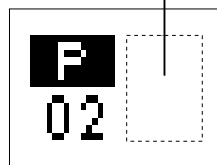
1. Select program mode using the mode selector button.

2. Input the first action. The inputted action will appear in block “P 01” in the LCD screen.



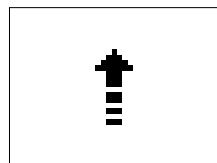
Empty block

4. Input the next action using the controller. The inputted action will appear in block “P 02” in the LCD Screen.



5. Repeat steps 3-4 until you are finished programming. A maximum of 80 actions per sequence may be inputted.

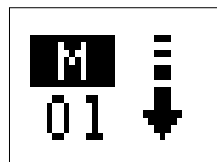
6. Use the GO button to confirm the inputted program's operation and transmit the program to i-SOBOT.



Program transmission screen

Note ※ Transmitting programmed data from the controller to i-SOBOT takes about 5 seconds per memory sequence.

To modify a program, use the up/down cursor buttons to display the action being changed and input a new action or press the “X” button to cancel the action.



M button registration screen

7. Storing an action sequence into memory:

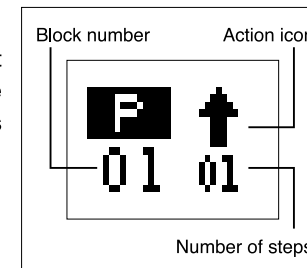
When programming is complete select and press the desired memory button (M1~M3) to store the program. Any previously stored programs will be overwritten.

Left joystick

[Example] Programming the i-SOBOT to Walk

1 Input using left joystick.

When the empty block screen is displayed, move the left joystick in the direction i-SOBOT should walk. The number of steps will be shown on the LCD screen. As the joystick is held down the number of steps increases. A maximum of 20 steps can be set in one block.



Sample input screen Forward movement

2 Confirm program status

The type of “walking” and the number of steps performed are displayed on the LCD.

3 Record program

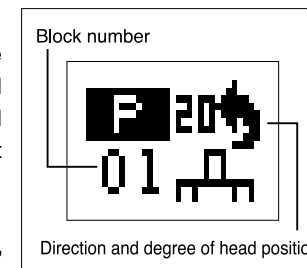
Press the down cursor button to add the action to the sequence and proceed to the next empty block. To change the action, input a new command and the previous command will be erased.

Right joystick

[Example] Programming the i-SOBOT to move its head

1 Left-Right input using right joystick.

When the empty block screen is displayed, move the right joystick left or right to input the direction and degree of the “head position”. The position of the head can be changed in 20° intervals by moving the right joystick in the direction that you wish to face.



Direction and degree of head position

Sample input screen Head position set at 20° left

2 Confirm program status

The direction and degree of the inputted “head position” are displayed on the LCD.

3 Record program

Press the down cursor button to add the action to the sequence and proceed to the next empty block. To change the action, input a new command and the previous command will be erased.

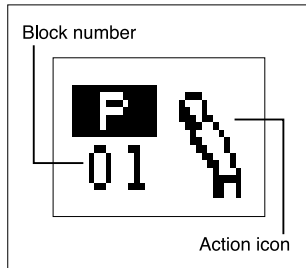
Program Mode

Right joystick

[Example] Programming i-SOBOT for "forward lean" and "backward lean"

1 Up-down input using right joystick.

When the empty block screen is displayed, move the right joystick up to program a "forward lean" or down to program a "backward lean". i-SOBOT has 3 different "forward lean" settings. The "backward lean" has just 1 setting.



Sample input screen
Forward lean, level 2

2 Confirm program status

The inputted action and angle are displayed on the LCD.

3 Record program

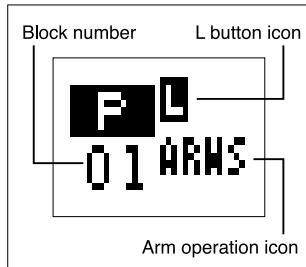
Press the down cursor button to add the action to the sequence and proceed to the next empty block. To change the action, input a new command and the previous command will be erased, and the new command will be inputted.

L button Left joystick / Right joystick R button

[Example] Programming i-SOBOT to move arms using the L button

1 While pressing the R button ("ARMS" is displayed in the empty block screen) move the arms to the desired position and record position by pressing the L button.

The shortest action to reach that locked position will be inputted.



Sample input screen
Recording arm position using L

2 Confirm program status

The L button icon is displayed on the LCD.

3 Record program

Press the down cursor button add the action to the sequence and proceed to the next empty block. To change the action, input a new command and the previous command will be erased.



Note

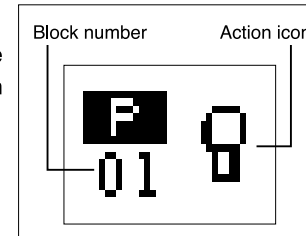
※Arm programs use up 2 blocks of memory, reducing, the total number of action blocks available.

1 2 3 4 P K G A B

[Example] Programming "Other Remote Control Remote control Actions and Special Actions"

1 Input the button sequence

When the empty block screen is displayed, input the code (button sequence) for the desired action as shown in this manual or the Quick Reference sheet.



Sample input screen
Right punch



Note

※For Special Actions, "GO" is part of the code and should be included when inputting the button sequence for programming.

2 Confirm program status

The type of action corresponding to the inputted button operation is displayed on the LCD screen.

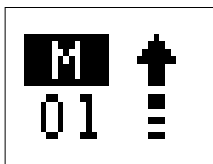
3 Record program

Press the down cursor button to add the action to the sequence and proceed to the next empty block. To change the action, input a new command and the previous command will be erased.

Program Mode

Executing Programmed Sequences

To execute an action sequence programmed in memory, press the desired M (1~3) button. Press the GO button to transmit the stored program data to i-SOBOT. i-SOBOT will confirm reception of the memory data with a beep.



M1 button transmission screen

To execute several memory sequences stored in several M buttons successively, press the M (1~3) buttons in the desired order of performance, then press GO.

Note ※A maximum of three memory sequences (3 M buttons of any combination) can be executed at once.



Input screen for input of buttons M1~M3 in that order

● Input example: For single action pattern (M1 button)

M1 button → GO button → Performance

● Input example: For a combination of multiple action patterns

M1 button → M2 button → GO button → Actions performed in order of input

M3 button → M3 button → M2 button → GO button → Actions performed in order of input

Important Note ※Transmitting programmed data from the controller to i-SOBOT takes about 5 seconds per memory sequence. Therefore, if one, two or three memory sequences are transmitted, the total transmission time will be about 5, 10 and 15 seconds, respectively. During the entire transmission time it is important to keep the controller in proximity of i-SOBOT and aimed at the IR receiver until i-SOBOT confirms reception with a beep.

Program confirmation, revision and copying

The content of a memory sequence that has been stored to an M button can be confirmed/revised and copied to another M button.

● Confirming and revising a memory sequence

- 1 Press the M button in which the sequence is registered.
- 2 Press the up cursor button and the stored sequence's block screen will be displayed.
Use the up/down cursor buttons to move to a different memory block.
- 3 To change the action of a program block, display that block's screen and press the X button.
The action inputted in that block will be erased.
- 4 After erasing the block, input a new action.

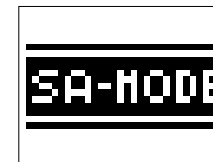
● Copying a memory sequence

- 1 Press the M button in which the sequence is registered.
- 2 Press the up cursor button and the registered sequence's block screen will be displayed.
- 3 Press the M button in which you wish to register the copy and the sequence will be copied.

※If the M button to which the copy is sent already has a memory sequence registered in it, the previous data will be overwritten.

Special Action Mode

Special Action Mode allows i-SOBOT to perform various preprogrammed actions. These actions can also be incorporated into action patterns (blocks) in program mode (see P21).



Initial screen for special action mode

Performing special actions

Input the A and / or B button sequence for the desired action, then press the GO button.

Action name	Input	Action name	Input
Forward Somersault	A GO	Random Animal Imitations: Dog; Cat; Eagle; Rooster; Gorilla	A B B GO
Headstand Exercises	B GO	Tropical Dance	B B A GO
Exercises	A B GO	Giant Robot	A B A GO
Air Drum	A A A GO	Western Movie Scene	B A B GO
Air Guitar	B B B GO	Random Performance 1: Banzai!; Japan Cheer 1; Japan Cheer 2;	B A B GO
Random Performance 2: Martial Arts; Tai Chi	B A B GO	Random Performance 2: Martial Arts; Tai Chi	A A A A GO

If the A / B button sequence is input incorrectly

Press the X button and you can erase the button operation that has been inputted so far. Input A button/B button again.

Repeating the same special action

After completing the special action, if you wish to repeat the same action, press the GO button. The command will be transmitted to i-SOBOT again.

Note ※The previous button input displayed on the LCD will be sent. In the case of actions performed at random, the same action may not necessarily be performed again.

Voice Control Mode

In voice control mode, the controller is not used. Instead, i-SOBOT is operated using 10 voice commands.

Important Note

※The recognition rate can fluctuate widely depending on the surrounding environment as well as the nature and loudness of the voice. It is important to use voice control mode in an area free of surrounding sounds and for the person commanding i-SOBOT to speak in a clear voice so it is easy for i-SOBOT to understand the commands.



Initial screen for voice control mode

Operating by voice

In voice control mode, i-SOBOT's searchlight indicates the status. When i-SOBOT is first changed to voice control mode, he needs a moment to prepare to receive the voice command.

When i-SOBOT is ready to receive a voice command, the searchlight will turn on.

After the searchlight indicator turns on, within 3 feet of i-SOBOT speak in a moderately loud, clear voice. If your voice is too loud or too soft, i-SOBOT will be unable to understand your command.

Control words	Action	Control words	Action
Go forward	Walks forward	How are you?	Responds appropriately
Turn left	Rotates left	What's up?	Responds appropriately
Turn right	Rotates right	i-SOBOT	Responds appropriately
Back up	Steps back	Look out!	Responds appropriately
Action, start	Performs either one of the special actions at random or one of 2 secret actions.	Make me laugh	Responds appropriately

Note

※In voice control mode, the controller is not generally used. However, the A button (Stand up 1), B button (Stand up 2), and home position / cancel button can be used in this mode.

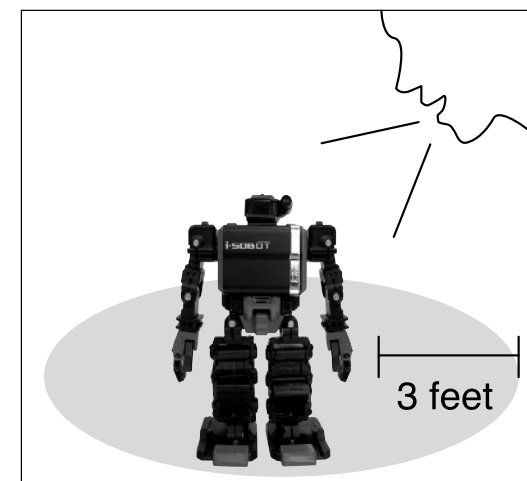
Status of LED

	Face	Searchlight
Preparation	Blinking	Turns on when able to hear
Cannot receive / understand command	Blinking	Blinking
Command received / understood	Immediately performs action	

Voice Control Mode

In these situations...

- 1) When command is recognized: i-SOBOT immediately begins the action.
- 2) When command is not recognized: Searchlight blinks, and occasionally i-SOBOT performs an action to show that he has not understood the command.
- 3) When a completely different word is spoken: Searchlight blinks, and i-SOBOT makes no response.



How to Make Adjustments

It is normal that over time i-SOBOT's joints (servo hinges) will slowly slip out of alignment or they might suddenly become out of alignment if i-SOBOT is dropped or subject to other shocks. When joints are out of alignment, i-SOBOT may not be able to perform actions correctly. This can be corrected by adjusting the clamps on i-SOBOT's joints.

Clamp Adjustment

Zero Position

In order to check joint alignment, i-SOBOT must be put into the "zero position." Do this by turning i-SOBOT's switch to ON and inputting "4, 4, 4, B" while in remote control mode. This position puts i-SOBOT into a standing "T" posture, with arms and legs aligned as shown in the diagram below.

Guide marks

In zero position, small guide marks, shown in the diagram, can be examined and, if any are out of place, can be adjusted using the adjustment method, as shown.

Guide marks are small raised triangles (on the joint clamps) and raised lines (on servo-motors) molded onto i-SOBOT's parts. The guide marks are the same color as the molded parts and can be difficult to see at certain angles and in poor lighting. To spot them, examine i-SOBOT under good lighting, up-close from the perspectives of the schematic diagrams.

- Diagram 1 shows an example of a guide mark triangle and line being out of alignment. Diagram 2 shows what the guide marks should look like if properly aligned.

Schematic Diagrams of Zero Position and Guide Marks.

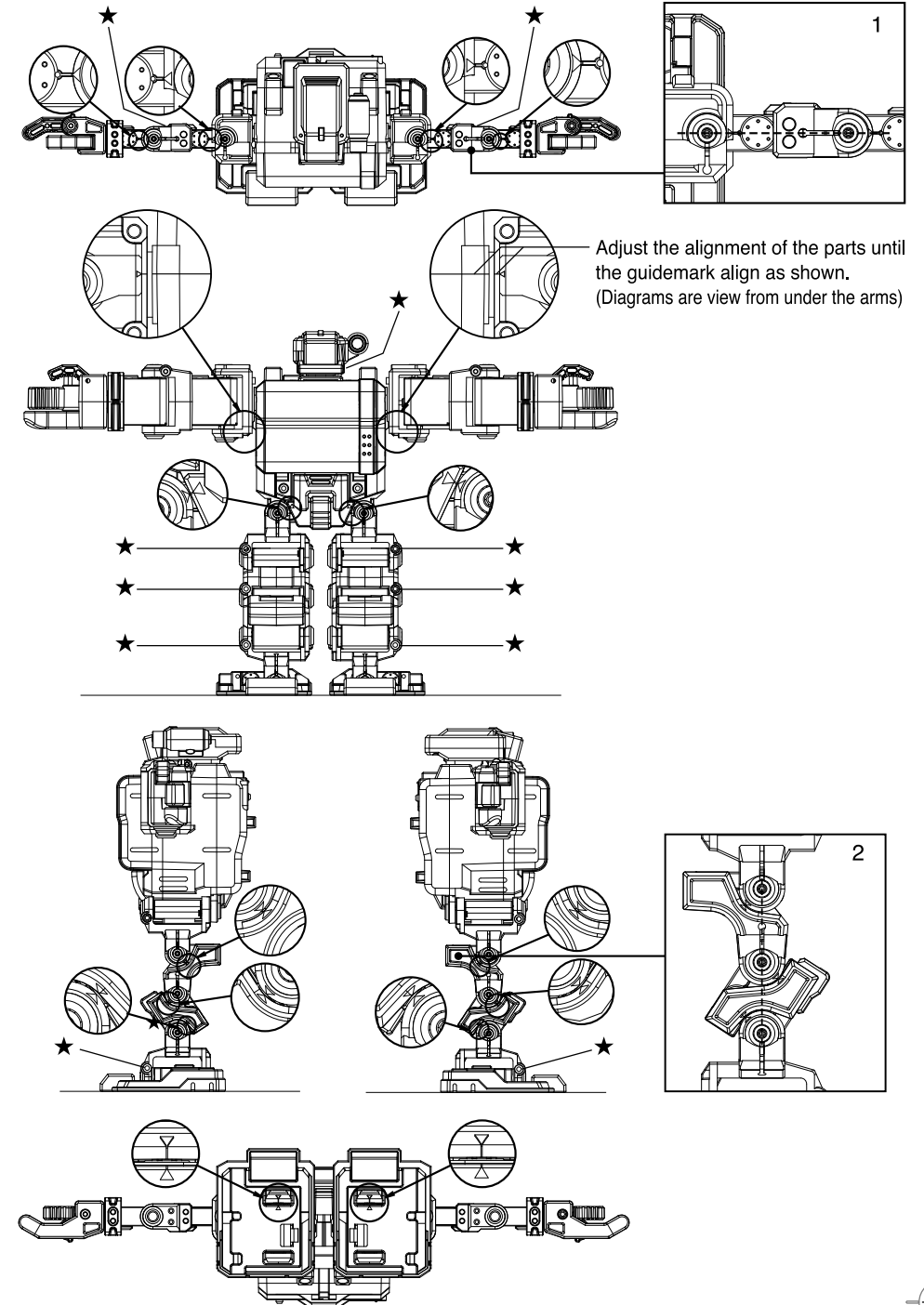
Schematic Diagram Notes

Arms: Notice how the servo-motor axles in the arms should form a straight line, as shown in the top diagram and expanded Diagram A show.

Legs: Notice how the servo-motor axles in the legs should form a straight line as shown in Diagram B and how the guide marks in the legs should be aligned, as shown in the middle diagrams.

Feet: Notice how the feet should be aligned when viewed from the front, side and bottom and how the guide marks on the bottom of the feet should be aligned, as shown in the middle and bottom diagrams.

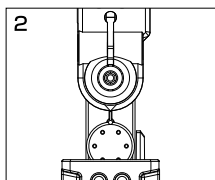
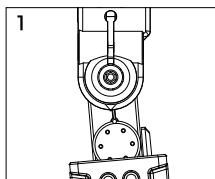
● Match mark diagram



How to Make Adjustments

Clamp adjustment

- 1 Turn i-SOBOT's power switch to ON, and put i-SOBOT into zero-position. At this time, check that i-SOBOT has assumed the correct cross-shaped position (zero-position) and all servo joints are aligned in a straight line.
- 2 By observing the guide marks, check to see that each joint is in alignment. If one is not aligned, use the included 1.5mm (L-15) Allen wrench to loosen the joint clamp's bolt.
- 3 Adjust the alignment of the parts until the guide marks align as shown in Figure 2.
- 4 Check that the guide marks align when i-SOBOT assumes the O-position and tighten the clamp bolt using the Allen wrench.
- 5 When all adjustment is completed, use the HP/Cancel button to return i-SOBOT to home position and resume normal operation or turn i-SOBOT's power switch to OFF.



Neck adjustment

- 1 Turn i-SOBOT's power switch to ON, and put i-SOBOT into zero-position.
- 2 Loosen the cap bolt below the searchlight.
- 3 With i-SOBOT still in the zero-position, turn the neck to the center.
- 4 Lightly tighten the cap bolt using the Allen wrench.
- 5 Use the HP/Cancel button to return i-SOBOT to home position to resume normal operation or turn i-SOBOT's power switch to OFF.



Shoulder adjustment

- 1 Turn i-SOBOT's power switch ON, and put i-SOBOT in the zero-position.
- 2 If the angle of either shoulder has slipped from the zero-position, loosen the two front and rear shoulder cap bolts. Both bolts are in curved slots. (The front shoulder cap bolt is shown in the diagram.)
- 3 When both bolts are loosened, the angle of the shoulder can be adjusted to the normal zero-position as shown in the zero position diagram.
- 4 When the shoulder angle is correct, re-tighten both cap bolts.
- 5 Use the HP/Cancel button to return i-SOBOT to home position to resume normal operation or turn i-SOBOT's power switch to OFF.



Important Note

※Tighten the clamp bolts and cap bolts only as much as necessary to create a proper hold. DO NOT over-tighten them or this could damage the parts.

Troubleshooting

Problem	Steps		Reference page	
Does not move	Initial setting	Controller	Install new batteries (3 x AA), checking that the polarities are correct. Turn the switch to A or B, to match the i-SOBOT unit.	P11 P13
		i-SOBOT unit	Replace with new AA batteries. Do not use a mixture of old and new batteries or batteries with different properties. ※When the batteries are removed, memory will be erased.	P11
	Remote control mode	i-SOBOT unit	At first, the rechargeable (3 x AAA) batteries are not charged. Charge the batteries before using for the first time. ※For details, please refer to the separate charger instruction manual.	P10
			Correctly install the charged rechargeable batteries (3 x AAA) (included).	P10
			Turn the i-SOBOT unit switch ON.	P13
			Turn the switch to A or B, to match the controller.	P13
			Infrared cannot be received in direct sunlight. Use indoors away from sunlight.	P12
			On rare occasions, i-SOBOT may be unable to receive the infrared due to interference from an inverter lighting device. Try changing the light or use in another room.	P12
		Controller	Match the modes of the controller and i-SOBOT.	P16
	Special action mode	Controller	Infrared is used for communication between the controller and i-SOBOT. Make sure there are no objects between i-SOBOT and the controller that may block communication. Point the controller's transmitter directly at the receiver on the i-SOBOT unit. To make i-SOBOT perform an action, press the buttons in the set order. Refer to the instruction in this manual or the Quick Reference sheet and press the buttons accordingly.	P12 P26
i-SOBOT unit		Match the modes of the i-SOBOT unit and the controller.	P16	
Voice control mode	Controller	Set i-SOBOT unit to voice control mode using the controller.	P16	
	i-SOBOT unit	i-SOBOT will emit a voice and perform an action according to the mode. Check that the modes match.	P16	
		The microphone is located on the left shoulder of the i-SOBOT unit. Check that nothing is blocking the microphone.	P07	
		i-SOBOT unit can recognize 10 commands. It cannot recognize other words. Pronounce the commands clearly and correctly.	P27	
		i-SOBOT unit can recognize a limited range of volumes.	P27	
		Voice commands can not be recognized in a noisy place. Use in a quiet area.	P27	
		Magnetic items near i-SOBOT can make it unable to hear commands. Try again in a different location.		
		Controller	Set the mode of the i-SOBOT unit to program mode using the controller.	P16
Program mode	Controller	Infrared transmission is used for communication between the controller and i-SOBOT. With infrared transmission, communication is not possible if there are objects in the way. Point the controller's transmitter directly at the receiver on the i-SOBOT unit.	P12	
		Infrared is used for communication between the controller and i-SOBOT. It takes approximately 5 to 15 seconds to transmit a created program to the i-SOBOT unit. (5 seconds per memory sequence, up to three sequences). During transmission, try to maintain the distance and angle between the controller's transmitter and the infrared receiver on the i-SOBOT unit.	P12	
		When the batteries run out and are removed, contents of memory are erased.	P11	
	i-SOBOT unit	Match the modes of the i-SOBOT unit and the controller.	P16	

Troubleshooting

Problem	Steps		Reference page
Malfunction	Controller	Replace batteries with new AA batteries. Do not use a mixture of old and new batteries or batteries with different properties.	P11
		Check if there are foreign objects caught in the buttons or joysticks	
		If more than two A/B band transmitters are used simultaneously, they may cause interference.	P13
		If another infrared transmitter (TV remote control, etc.) is used simultaneously, it may cause interference. Do not use simultaneously.	P12
Does not move properly	i-SOBOT unit	In the zero position, if the guide marks are out of alignment, i-SOBOT may be unable to move correctly. Follow instructions in order to make adjustments as necessary.	P29
		<p>Is some i-SOBOT component broken? The i-SOBOT unit has a modular structure consisting of torso, right arm, left arm, right leg, and left leg. Repair or replacement involves the respective module's entire assembly (in the case of a broken leg, both legs must be replaced together.)</p> <p>Further information is available as follows: Visit the i-SOBOT Website www.isobotrobot.com Call i-SOBOT Customer Service 1-877-369-8939 (9:00AM-6:00PM CST)</p>	

Important Battery Information

For best performance with the i-SOBOT robot, use the rechargeable batteries included.

DO NOT use alkaline, zinc-carbon (heavy duty) or high voltage (such as 1.7V Oxyride) batteries in the i-SOBOT robot. (Alkaline batteries may be used in the remote control unit.)

The robot unit will not function properly with alkaline, zinc-carbon or high voltage batteries and in some cases these batteries may damage some components.

If an additional set of batteries is needed, TOMY recommends purchasing AAA rechargeable batteries with the following specifications:

NiMH 1.2 V AAA (HR03) Rechargeable Batteries

Note: Follow the full battery use and safety instructions in this Instruction Manual and always follow the manufacturer's instructions for rechargeable batteries.

Main Specifications

■ i-SOBOT (unit)

Total height 6.5"
 Total width 3.94"
 Depth 2.64"
 Weight77lb

Uses 17 servo motors

Equipped with gyro-sensor

Equipped with speakers

Uses 3 AAA nickel hydride rechargeable batteries (included)

■ Controller

Total height 3.39"
 Total width 3.94"
 Depth 1.57"
 Equipped with liquid crystal monitor 16×32pixel
 Infrared control (simultaneous control of 2 units possible)
 Maximum motion memory 240

■ Servo motor

Total height 21.86"
 Total width 21.0"
 Depth 8.33"
 Rotational speed of motor (rpm) 22.4
 Rotational speed of servo (rpm) 31