



# Control of Humanoid Robot

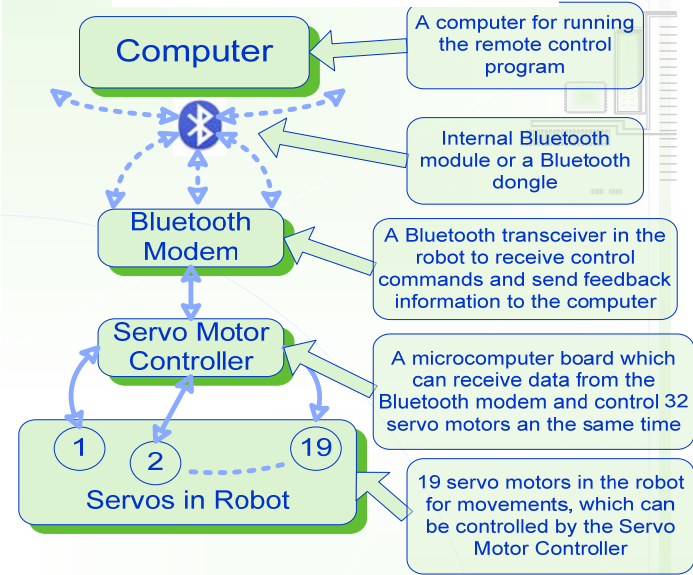
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Here is the communication settings. You can choose whether to use a cable or a wireless control.

Here is a commands sender. You can use it to talk with the microcomputer in the robot.

This is the fine adjustment panel for each movement step.



In this box you can choose which movement is to be performed.

Of course you can make the movement step by step.

Use your imagination to create your own movement sequence.

Edit each movement step for the robot.

Here is to define a starting position for each movement.

The microcomputer ATMEGA168 is already programmed and it can understand string commands. For example, "#10 P1500 T1000" means to move the servo motor on channel 10 to its center position in 1 second. The microcomputer in robot only do the motor control, and the real "brain" of the robot is your computer. With a programming language (C/C++/C#, Java...) which can access serial ports, you can make more advanced motion control for the robot.

- Technical Information:**
- Bluetooth Modem: Sparkfun BlueSMiRF Gold
  - Servo Motor Controller: Lynxmotion SSC-32 Servo Controller
  - Microcomputer: Atmel ATMEGA168
  - Servo Type: Graupner Servo RBS581 × 19
  - Power System:
    - 9V Alkaline battery (for Servo Controller & Bluetooth Modem)
    - 6V Ni-MH 2000 mAh rechargeable battery pack (for 19 servos)

Each servo motor is connected to a specified control channel on the microcomputer. In order to control motors properly, you have to assign each motor a channel and use the channel number in your program. Here is a servo mapping in the following program.