Elegoo PenguinBot2 Infrared Remote Control

I have re-instated the infrared remote control removed by Elegoo in Version 2.

The remote control is active once the initial dance is complete.

① Manual Control Mode (using arrow keys)	② Dance Mode (press again to select from one of three dances)	③ Music Mode (press again to select the next mp3 file on the memory card)
④ Follow Mode	⑤ Obstacle Avoidance Mode	⑥ Adjust Right Foot Servo
⑦ Adjust Left Foot Servo	⑧ Adjust Right Hip Servo	⑨ Adjust Left Hip Servo
* Volume -	⓪ Volume Mute	# Volume +
	↑ Manual Forward Adjust +	
← Manual Turn Left Adjust -	OK Stop	→ Manual Forward Adjust +
	↓ Manual Backwards Adjust -	

Servo Adjustment

The servo adjustment modes should only be used to calibrate the starting position of the PenguinBot if its feet are not flat to the floor and the legs facing forwards after its startup dance is complete.

Press button 6, 7, 8 or 9 to select the servo to adjust. Press the arrow keys to adjust the angle of the selected limb in small increments. The new position is stored automatically. To exit from adjusting a servo, press one of the mode buttons 1 to 5, or select the next servo to adjust with buttons 6 to 9.

MP3 files

Music mode plays one of 10 .mp3 files on the micro SD card at the rear right of the PenguinBot. Press button 3 multiple times to select the file to play.

The files played are named 0001.mp3 to 0010.mp3 (additional text can be inserted after the four digit number and before the .mp3 extension). These files can be replaced by your own music. If a file of a particular number is not present, there will be silence until you press button 3 to select the next file.

By default I have copied files 11 to 14 described below to files 1 to 4 and 6 to 9. Files 5 and 10 are a Happy Birthday song.

The files 0011*.mp3 to 0017*.mp3 are used by the inbuilt dance and other modes. If they are replaced, the PenguinBot will work best if the new files are of the same duration.

0011_Startup.mp3	Startup dance (9 seconds)
0012_Dance1.mp3	Dance 1 (50 seconds)
0013_Dance2.mp3	Dance 2 (53 seconds)
0014_Dance3.mp3	Dance 3 (71 seconds)
0015_Guitar.mp3	Guitar Sound Effect (not used) (2 seconds)
0016_FollowMe.mp3	Follow Me sound effect (2 seconds)
0017_ObstacleAvoid.mp3	Obstacle Avoidance sound effect (2 seconds)

Bluetooth Mode

The PenguinBot can also be controlled using the Elegoo BLE tool smartphone app. See page 19 to 23 of the instruction manual. To control the PenguinBot in this way, the small switch in the middle at the back has to be to the left (the right hand position is for reprograming mode).

Recharging

Charge the PenguinBot with the power switch underneath switched off. Connect the cable to the micro USB connector at the rear left of PenguinBot. A yellow indicator indicates charging is in progress and a green indicator indicates that charging is complete. The larger mini USB connector at the centre rear is for programming and is not used for charging.

Caring for your PenguinBot

Try not to restrict or interfere with the movement of his limbs while he is switched on.