

INSECTOID OWNER'S GUIDE

Testing

1. Connect the battery. Your *Insectoid* should chirrup once.
2. Remove the battery then reconnect it with the light sensor (LDR) near a light. The eyes (LED1 and LED2) should light up.
3. Remove the battery then reconnect it this time with the light sensor in the dark. The eyes should remain off.
4. Give a single short blast on the whistle. The eyes should flash rapidly a few times.
5. *Insectoid* twitches its antennae whenever it chirrups. The degree of movement of the antennae depends very much on the weight at the ends. Adjust the pieces of Blu-Tack by adding or removing small amounts until the greatest movement is obtained ('resonance'). Note however that the movement of the antennae is quite subtle, at most a couple of millimetres.
6. If your *Insectoid* has behaved like this then it is working properly. You are now ready to train your *Insectoid*.

Training

The behaviour of *Insectoid* in response to light can be modified. Its actions of chirruping and lighting its eyes can be independently altered.

The whistle is used to train *Insectoid*. Blowing the whistle teaches it not to do something. In other words the whistle acts as a punishment. For example, if *Insectoid* has just chirruped and you wanted it to be quiet then blow the whistle. *Insectoid* will flash its eyes a few times to acknowledge that it has understood. If, on the other hand, you did want it to chirrup then blow the whistle when it's silent and it will learn to chirrup in the future.

Insectoid needs to be taught quite a few times before the training completely takes effect. Keep blowing the whistle until your *Insectoid* behaves as you want it to. When fully trained *Insectoid* will stop flashing its eyes in response to the whistle.

For example, you could train your *Insectoid* to light its eyes in the dark and chirrup in sunlight. Or alternatively, to light its eyes during the day and chirrup at night. More realistically you could teach it to sleep during the day and to only come alive at night.

Insectoid will remember its training after the battery is removed. If you want to restore *Insectoid* to the untrained state prior to re-training, hold it directly under a very bright light, or touch a torch to the light sensor, and at the same time connect the battery. *Insectoid* will give a long beep and reset itself to the 'factory settings'.

Friend or foe

Insectoid will recognise others of its own species (it recognises the chirrup). If it thinks another *Insectoid* is a rival then it will threaten it.