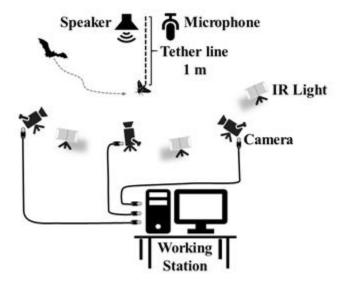


**Fig. S1.** Echolocation sequence of *Eptesicus fuscus* during an attack on a tethered moth. Representative calls from each foraging phase are shown (i.e. search, approach and terminal buzz phases). Six sonar strobe groups were produced in this sequence: three doublets, one triplet and two multi-calls (see black arrows). Doublets and triplets consisted of pairs and groups of three pulses respectively. The multi-call category included sonar strobe groups with four or more pulses. In this example, both multi-calls included four pulses. Letters (a and b) represent an example of the difference in the inter-pulse intervals that characterized SSGs. An SSG was defined as a group of two or more calls separated by a short inter-pulse interval (a) and flanked by longer inter-pulse intervals (b). The spectrogram was obtained with a sampling rate of 250 kHz and a window length of the Fast Fourier Transform (FFT) of 1024 points.



**Fig. S2.** Diagram of the recording setup in the outdoor flight arena during playback experiments.