

Supplementary Material

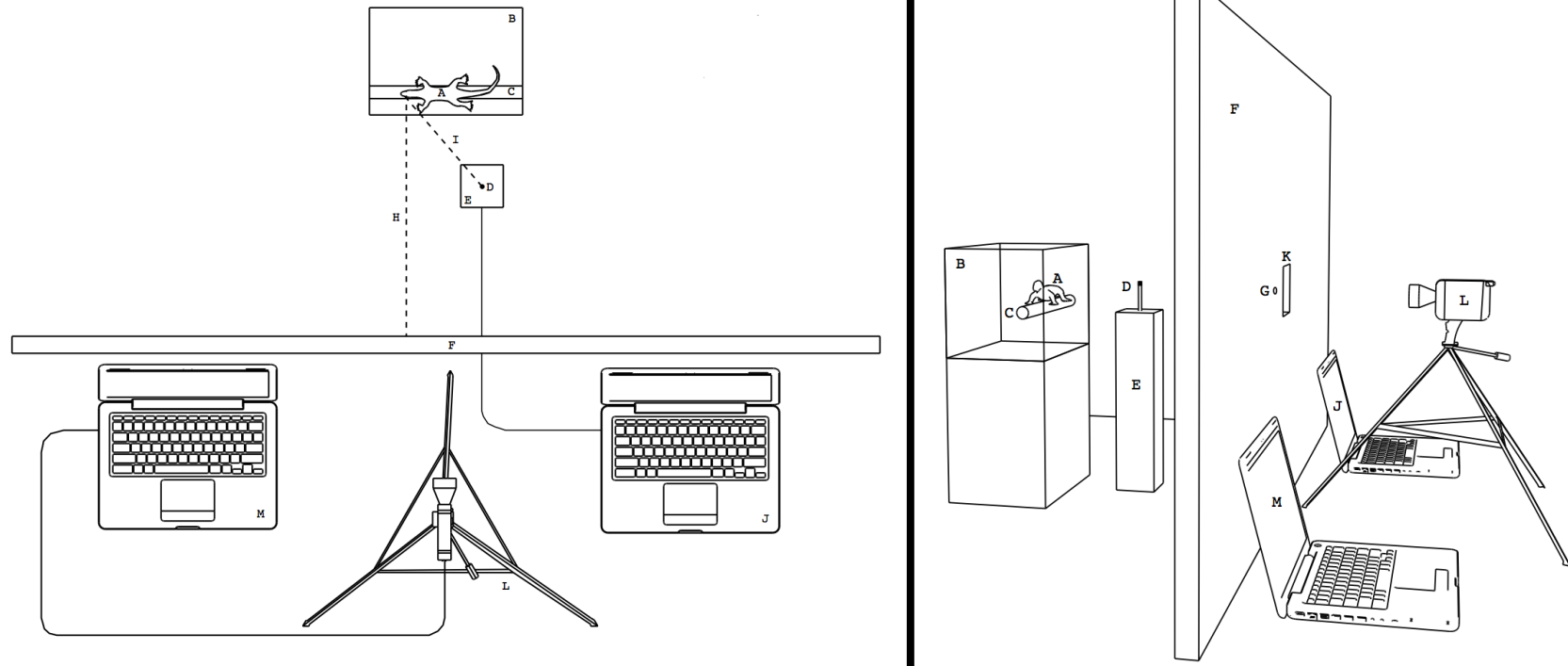


Figure S1. Schematic of the laboratory set-up for the *Anolis gundlachi* motion detect experiment in plan (left) and perspective (right). A subject lizard (A) is maintained in a plastic test cage (B) with transparent walls and a horizontal wooden dowel rod (C; diameter = 19 mm). The edge of the dowel is located 3 mm from the front wall. The cage is then placed so that the eye of the lizard is located 17.5 cm from a black target (D). The target is attached to a thin white cylinder that is moved by a Haydon Kerk linear actuator stepper motor. The motor is enclosed in a white box (E). A bare 72 W (1490 lm) halogen light bulb hangs 45 cm above the target, with light diffused by a square of translucent vellum located 30 cm below the bulb (bulb and vellum not shown). A white, wooden board (F; 130 x 46 cm (l x w)) serves as both a background for the target and a blind for the experimenter. Prior to the trial, the lizard is encouraged to perch on the dowel rod by gently rotating the cage. A thin metal nail is then pushed through a small circular hole (G) in the blind to draw the gaze of the lizard directly to its side along a line running perpendicular to the dowel (H). With its gaze on the nail, the target is located along a line (I) running 40 degrees from H. Fifteen seconds after the gaze shift, a laptop (J) is used to initiate movement of the target. The eye of the lizard is filmed through a small window (K; 6.5 x 6.5 cm) in the blind using a tripod-mounted camcorder (L). The camcorder is connected to another laptop (M) to magnify the image of the eye for easy characterization of the lizard's response. During control trials, a white blind is placed along line (I) to block the lizard's view of the target.

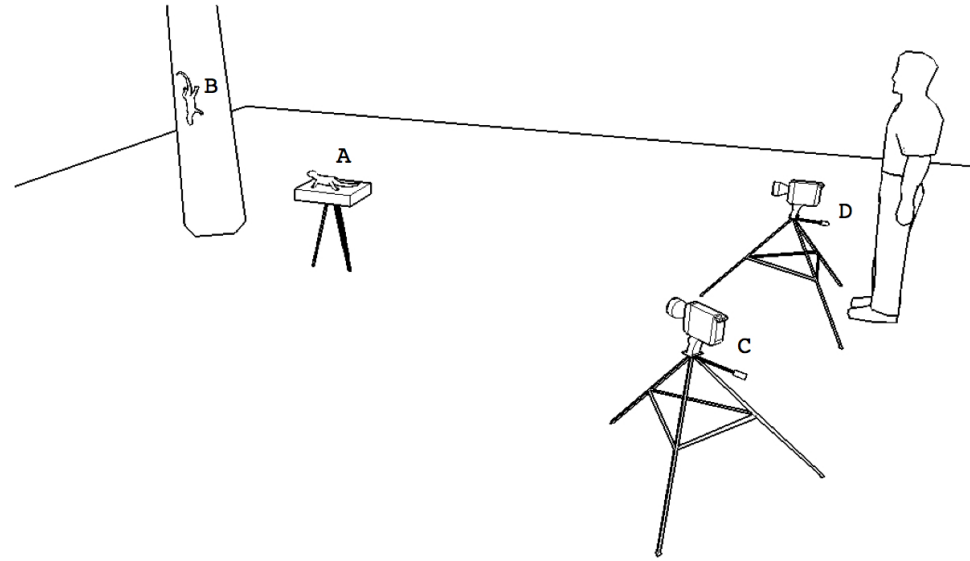


Figure S2. Schematic of the field set-up for the *Anolis gundlachi* receiver distance experiment. The ‘receiver’ (A) is introduced to the territory of the ‘signaller’ (B). One camcorder (C) films the behaviour of the ‘receiver’, while another (D) films the headbob display of the ‘signaller’.



Video S1. A video clip showing a typical *Anolis gundlachi* headbob display. Note the square wave-like pattern of the motion.