

Fig. S1. Example images of wasps seen side-on for the determination of average body length. Scale bar, 2 cm.

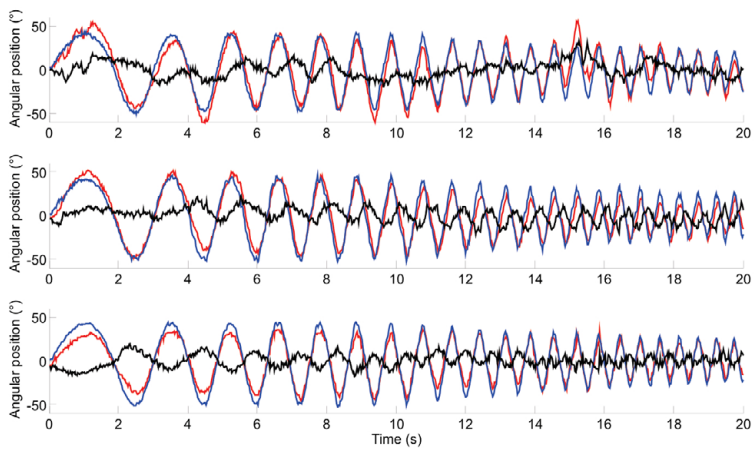
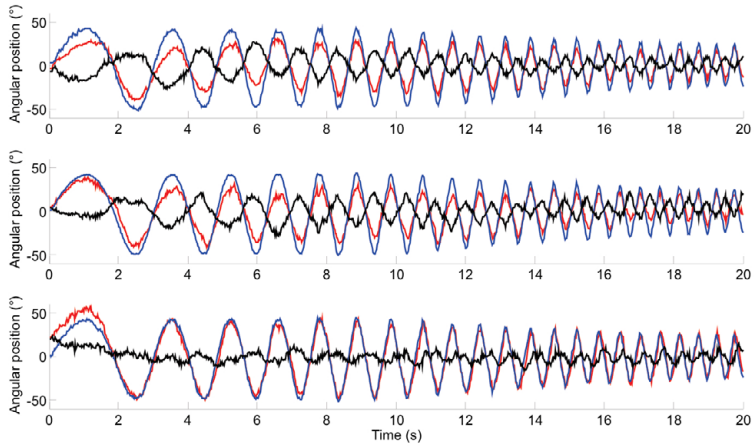
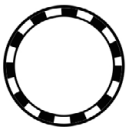
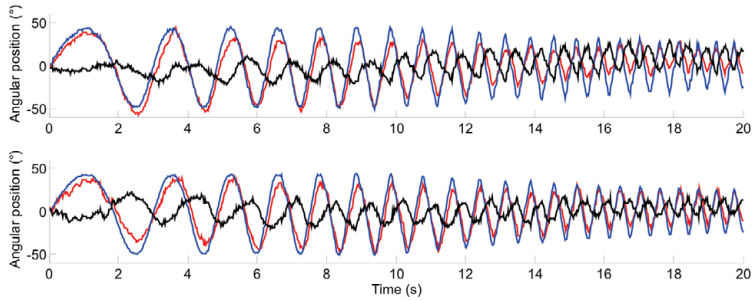
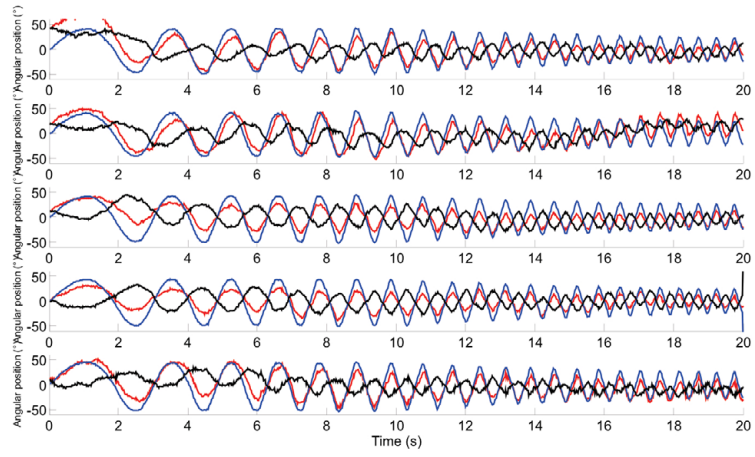
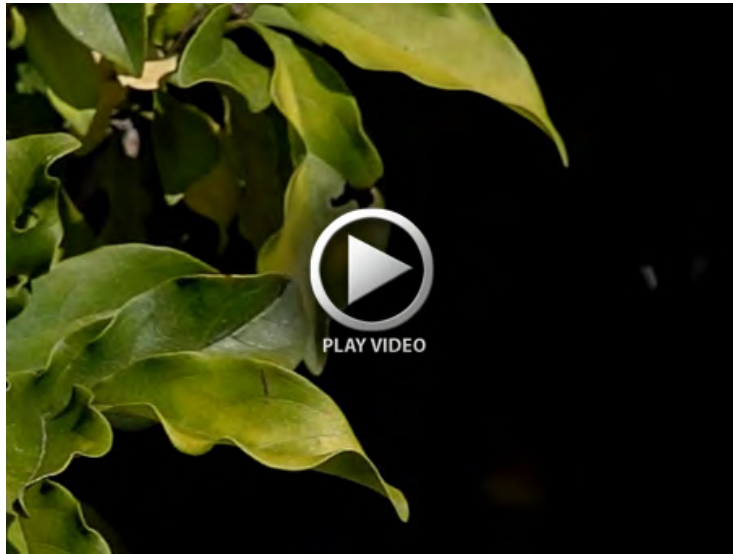
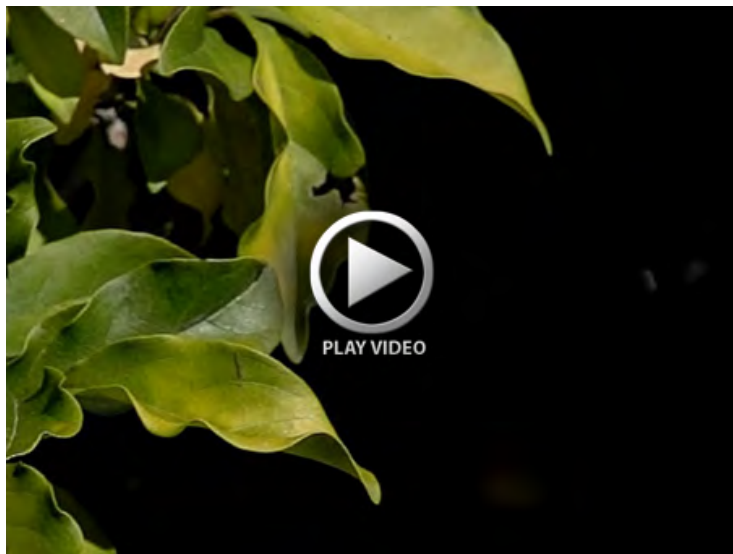


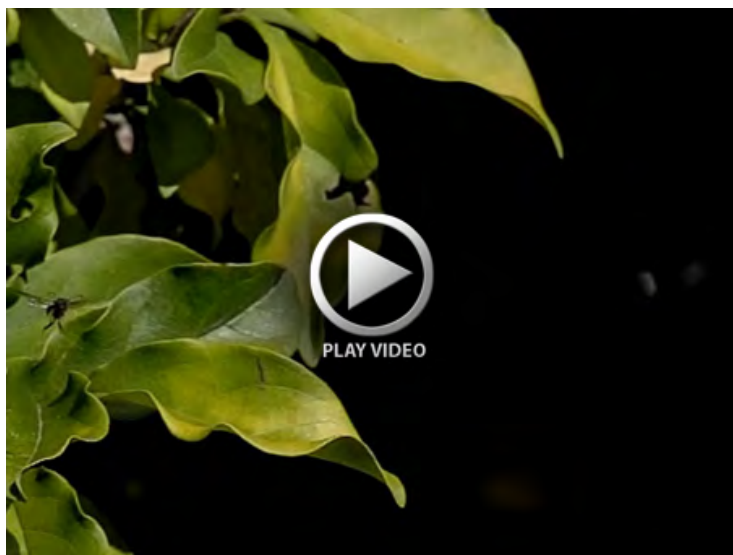
Fig. S2. Time course of individual head roll responses to sinusoidal, frequency modulated (chirp) oscillations applied to the body, in each of the four visual conditions indicated by the pictograms. Body orientation (blue), head orientation (red) and head orientation relative to the body (black). For average values and standard deviations, see Fig. 2.



Movie 1. Example sequence 1 of male wasps facing *Magnolia* leaves during a patrolling flight. Filmed at 300 frames s⁻¹.



Movie 2. Example sequence 2 of a male wasp facing *Magnolia* leaves during a patrolling flight. Filmed at 300 frames s⁻¹.



Movie 3. Example sequence 3 of a male wasp facing *Magnolia* leaves during a patrolling flight. Filmed at 300 frames s⁻¹.