

Stimuli List

We will be running experiments to test what visual features matter most in amplitude modulation. This is a list, sorted by importance, of stimuli features to test.

Do flies only sing to other flies or will they sing to anything that moves?

Can we find something that induces singing but not amplitude modulation?

How about pulses but not sine? Are they controlled by different circuits?

1. It shouldn't take long to replicate some of the data that Pip acquired just to become acquainted with running fly on a ball experiments.
2. Bifurcation points in nature of static visual stimulus. The goal here is break the fly's visual recognition system. Here are a bunch of things that we can modulate.
3. **Shape:** Outline of [Box, Circle, Random] vs [Box, Circle, Random]
4. **Color:** must it be black or do things at the opposite end of the perceptual spectrum work as well (I will need to do some reading on fly color theory)
5. **Complexity:** present the fly with images of human faces, scenes, random noise

3. Dynamical Stimuli:

4. Is the fly responsive to azimuthal and distal **jitter**?
5. Stimulus flickers or **disappears** for different intervals, **specifically 470ms and 30ms.**
6. Stimulus **changes shape and color**
7. Only azimuthal or only distal movement or must they be correlated.

4. Preference

5. Two stimuli, one in each eye
6. Hundreds of dots moving around the screen