

Materials List for:

Physiological Experimentation with the Crayfish Hindgut: A Student Laboratory Exercise

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URL: <https://www.jove.com/video/2324>

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Materials

1. Crayfish (*Procambarus clarkii*). Atchafalaya Biological Supply Co., Raceland, LA., USA.
2. Standard crayfish saline: Modified from Van Harrevelde's solution (1936). (in mM) 205 NaCl; 5.3 KCl; 13.5 CaCl₂·2H₂O; 2.45 MgCl₂·6H₂O; 5 HEPES and adjusted to pH 7.4. Serotonin, glutamate and dopamine are made in crayfish saline. All chemicals are obtained from Sigma chemical company (St. Louis, MO).
3. Dissection tools: Fine #5 tweezers, fine scissors, knife blade holder, #26002-20 insect pins (all obtained from Fine Science Tools (USA), Inc., 373-G Vintage Park Drive, Foster City, CA 94404-1139)
4. Sylgard-bottomed Petri dish
5. Beakers (to hold chemical solutions)
6. Electrical signals are recorded on line to a **PowerLab 26T** interface to a computer (**ADInstruments**, Colorado Springs, CO, USA). We use standard software from ADInstruments named Chart or Scope.
7. **Bridge pod** for the force transducer (different Bridge pods are required for different types of force transducers).
8. **MLT0402 (2 grams) force transducer** is the research grade as shown in the video. **MLT 0210/D (10 mg-25 grams)** and the **MLT 500/A (0-500g)** are the educational grades transducers (**ADInstruments**).