Activity Plan

The Muscle Car Camp

Title of Activity: Duration:

EKG with Arduino

1 hour

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Objective: ­

Introduce how an electrocardiogram works through a simple code and circuit.

Description: Materials:

1. Computer with Arduino and Processing
2. Arduino Code
3. Processing Code
4. Breadboard
5. Electrode sticker pads
6. Electrode sensor cable
7. Single lead heart rate monitor sensor
8. Download the Arduino and Processing programs.
9. Copy and paste the proper code from github.com/sbechara into each program.
10. Create circuit (see below).
11. Have students put an electrode sticker on the inner side of both wrists and on the inner right ankle.
12. Connect the sensor cable to the sensor and on the electrode stickers.
13. Have students relax their arms and legs ensuring they are not applying any additional forces.
14. Display EKG on Processing.

Relevant pictures of materials and final set up