ELECTRICITY
Each county may submit 3 entries total from 50177, 50178, 50179; and 1 entry from 50181.
It is strongly suggested that members use recommended construction details including proper color coding provided by the Energy Education Council (EEC) that have been provided on the EEC 4-H website; http://www.energyedcouncil.org/4-H.html.

50177 Electricity 1: (May only be battery-powered projects using battery components and wiring). Exhibit a momentary switch, simple switch, basic circuit, electromagnet, galvanometer, OR an electric motor. All projects must include a report explaining how the project was constructed and the principles demonstrated. Recommendations can be found on the website. Projects using paper clips, cardboard, thumbtacks, & brads are not eligible for state fair exhibits in electricity. Members wishing to exhibit these types of projects should consider exhibiting in Junkdrawer Robotics 1 or 2.

50178 Electricity 2: (May only be battery-powered projects using battery components and wiring) Exhibit a circuit board demonstrating parallel and series switches, including a circuit diagram; 3-way or 4-way switch circuit using DC/battery; OR a basic electrical device (examples: rocket launcher, burglar alarm, etc.). All projects must include a report explaining how the project was constructed and the principles demonstrated. Recommendations can be found on the website. Projects using paper clips, cardboard, thumbtacks, & brads are not eligible for state fair exhibits in electricity. Members wishing to exhibit these types of projects should consider exhibiting in Junkdrawer Robotics 1 or 2.

50179 Electricity 3: Exhibit a 120V lighting fixture or other appliance which uses a switch; OR two electrical household circuits using 120V materials to comply with National Electrical Code, one with a simple on/off switch to control bulb, and one using 3-way switches to control light from two locations; OR other project which demonstrates principles in the Wired for Power book. All electricity projects must include a report, explaining how the project was constructed, and principles for its operation. Recommendations can be found on the website.

50181 Electricity Ready4Life Challenge: (Open to 11- to 18-year-olds enrolled in any Electricity project) Exhibits in this category must include the following: a) a physical representation of the career or business product such as a model, prototype or display/portfolio that includes images of accomplished work; b) verbal or written explanations that demonstrate knowledge of the related career or business fields, potential careers, and the appropriate requirements for achievement in those fields. The judging criteria for this class values thoroughness of career and/or business exploration and pursuit above the workmanship of the physical specimen on display.