



ELECTRICAL MOTOR CONTEST

Sponsored by the IEEE Chapter of OKC



FOREWORD

This contest is limited to five (5) entries per school.

Each school MUST pre-register online. Visit oef.org/2025-fair-registration. Prizes will be awarded to winning entries from registered schools only. Entries from unregistered schools will NOT be eligible for prizes.

OBJECTIVE

Prior to competition, design and build an electric motor-powered by a dry cell battery that rotates at the highest possible speed.

DESIGN STATEMENT

Each entrant will design, build and test a Horizontal shaft electrical motor. The motor shall be powered by one readily available non-rechargeable dry cell battery. The motor is judged on its highest rotation speed with no load. The motor may be started by hand. The motor is to be constructed from materials and simple hardware readily available at retail stores or mail order suppliers.

A hard copy of a design drawing and parts list indicating the source, cost and fabrication operations for each part must accompany the motor at the competition.

MATERIALS & RESTRICTIONS (\$50 MAXIMUM EXPENSES)

·The motor must be built by this year's contestant and not by a previous year's contestant.

The power must be derived from one non-rechargeable dry cell battery. The maximum nominal voltage shall be one and one-half (1.5) Volts. A single flashlight battery up to D size may be used. Batteries may not be paralleled. The battery is supplied by the entrant and may not be replaced during a timed contest. The battery may be replaced between the first and second trial. Readily available permanent magnets may be used.