Pinewood Derby

(AWANA Grand Prix)

Introduction

This app will set up the data and operate the running of a Pinewood Derby, or an AWANA Grand Prix, race. The software consists of the iOS App, available on the Apple AppStore, and a Python based timer interface.

The complete system consists of:

- at lease one iOS or iPadOS device (multiple devices may be used by observers),
- (currently) a **microwizard.com** Fast Track timer device with power supply,
- a computer which can run Python (Windows, Linux, Mac, **Raspberry Pi**, etc.),
- an RS232 serial to USB cable,
- and a switch cable (RJ22 connectors) to the start switch.

iOS Pinewood-Derby App

The iOS Pinewood-Derby App, available in the Apple AppStore, has two modes, a master mode and an observer mode.

The observer mode allows:

- Viewing of the racers.
- Viewing of the heats.
- Viewing of the times.
- Viewing of the rankings.
- Viewing of the results.
- Connecting to the computer (e.g., Raspberry Pi) timer server.
- Get the race configuration from the Raspberry Pi timer server.

The master mode allows full control of the race, including

- Everything that the observer mode can do, plus:
- Adding, editing, and deleting racers.

- Managing the heats of the race, including entering special heats.
- Editing the resulting times, to enable ignoring false times.
- Sending the configuration to the computer (e.g., Raspberry Pi) timer server.
- Start and Resume Racing.
- Start and Resume Simulation (for testing).

Computer (e.g., RaspberryPi) Timer Connection

Technical Detail