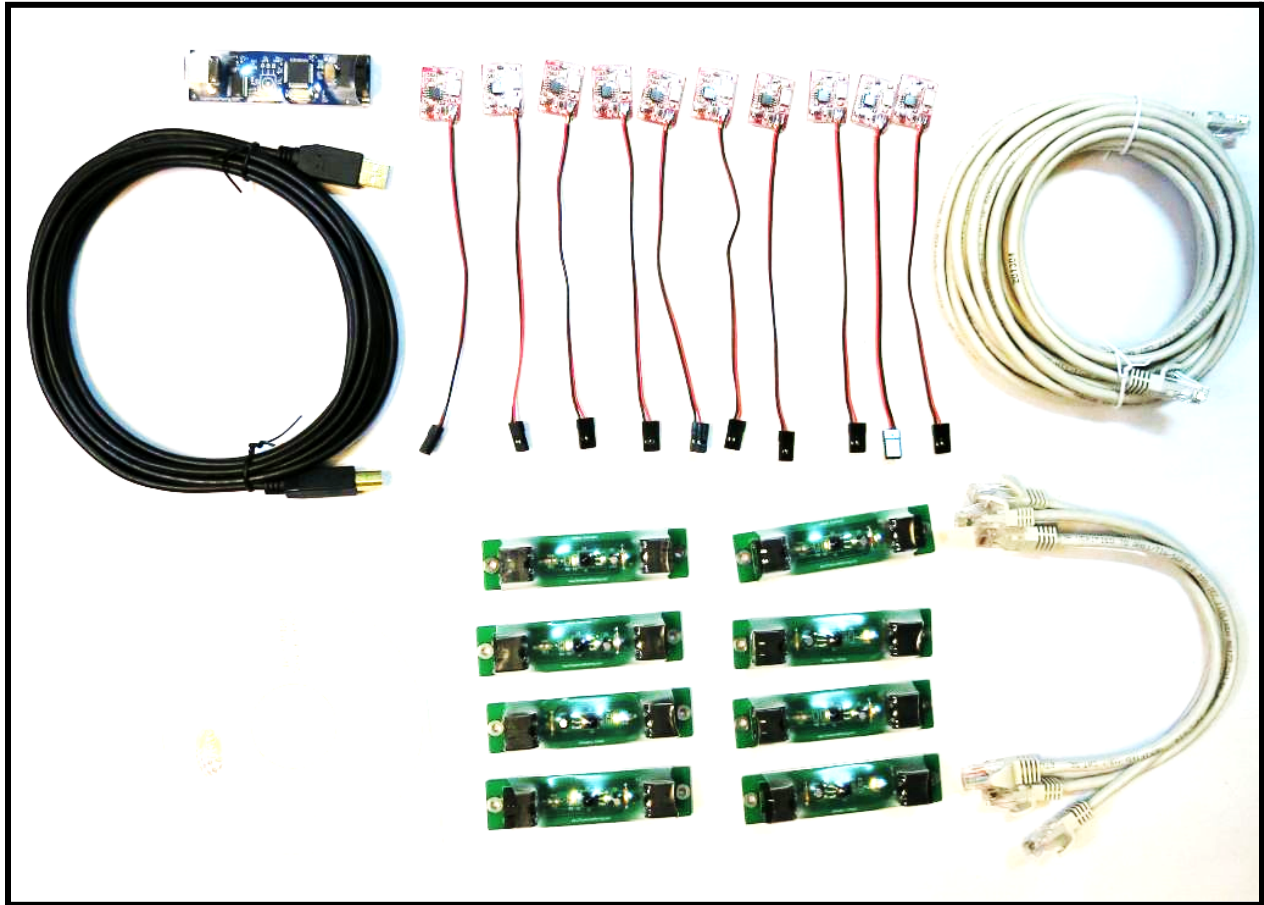




RC Lap Counter

HARDWARE GUIDE

Trackmate RC Lap Counter



Compatibility

Requires PC or Laptop running Windows 8, Windows 10, Windows 11 or higher

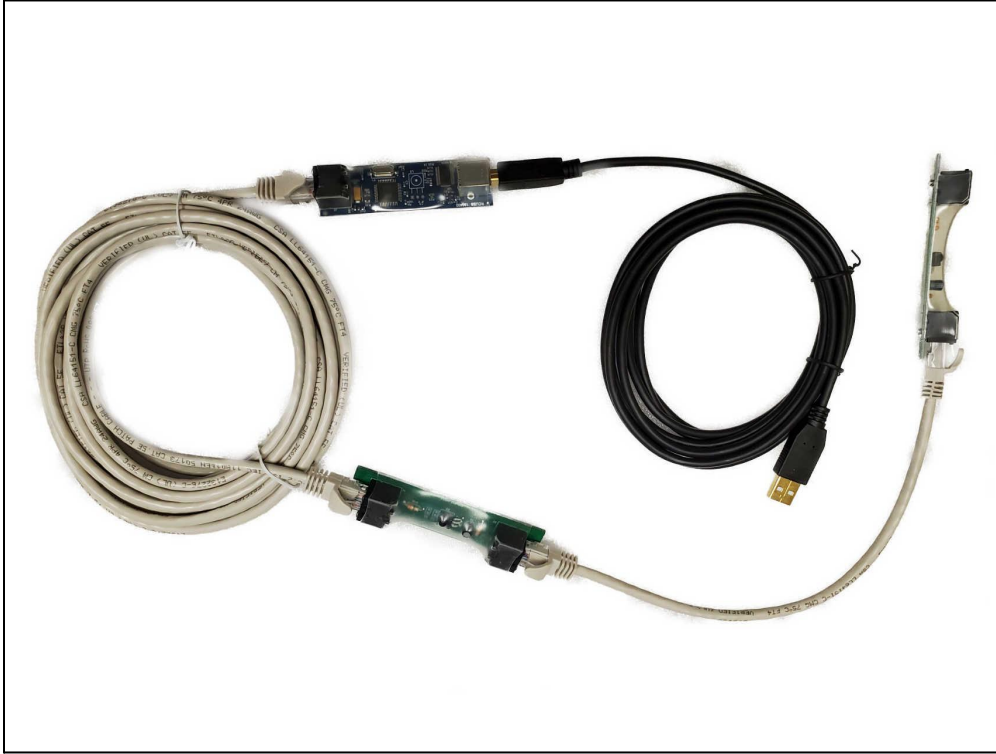
Features

- Supports Practice, Qualifying, Timed, Qualifying Laps, Race Timed, Race Laps
- Auto detect ID and display name. No names to enter before race; just click GO
- View all lap times - you can also sort lap times
- View race summary - number of laps, best lap, median, number of crashes and crash percentage etc.
- Print laps
- Print summary
- Save data to disk - as text or "Lap" and "Summary" files
- Open and view saved data
- Instant Start or Formula One start
- Reset best lap time for any racer - just click on it , useful in practice
- Sounds - Get ready, Go, White flag, Checkered flag, Race over, 10 seconds left
- Displays green flag, yellow flag, checkered flag and race over during race
- At end of race, waits for everyone to complete current lap
- Updated help file
- Track length and scale in settings
- Start race with lap 0 or 1 in settings
- Display MPH
- Display Median (a median of 4.5 seconds means 50% of your lap times are below 4.5 and 50% above 4.5)
- Configure data to display; Lag behind, lag First, median, or MPH by clicking on column heading even on the fly during a race
- Demo mode - you can test all the features with no hardware attached
- Com port and Interface Auto detect; for easy Installations
- Merge several saved summaries together and sort on any field, useful when qualifying more than 14 racers
- Auto Save Data
- Auto Print
- Hot keys
- View data on any device

New Version 7.55

Installing Sensors in Bridge

For 1:10 scale make a bridge to hold the sensors about 22" above. For 1:24 scale like mini-z the bridge can be as low as 7" for small indoor tracks. The end sensors should be about 6 inches from the edge of the lane. Use the 12 inch cables to interconnect the sensors. Do not recess overhead detectors.





Installing Software

Software can be downloaded from the website; www.Trackmateracing.com click Support on the Top menu and follow the download and installing instructions.

Software

This software is a complete rewrite and replaces the old Trackmate 6.9 version written more than 10 years ago. I look forward to bringing you the easiest software to use. Please report any bugs as soon as possible so I can fix them. There is no need to delete your old 6.9 version, you can have both installed. You can also import racers from version 6.9

Compatible with Windows 8, 10 and 11 only. Contact Trackmate if you want version 6.9 which is compatible with older versions of Windows.

For the latest release of software see the support section on the Website <https://trackmateRacing.com>

Important Settings

- If No com port appears in the drop down box, it most likely means you did not install the USB driver, Click Help and install USB Driver from there.
- If changing Demo on/off in settings restart program
- Make sure minimum lap time is set below your best possible lap time for your track layout.

Adding Racers/Transponders

- Click Menu>Racers to add transponder/ name
- You can assign a color to a racer, maybe have it match the car color,

- To Delete transponder/racer click on left column and use the keyboard Delete key
- Bottom left corner on main screen will display last transponder number detected
- Click on the transponder number on the main screen during a race to associate a name to it.
- You can Import Racers/Transponders from a comma delimited file, which can be used to import transponder numbers from another software.

Running a race

- Select your race format.. Practice, Lap race, Timed race, Qualify
- You do not need to register any racers to race, just click Start and start racing
- Race starts with Lap 0. Meaning first time across start/finish line will be lap 0
- Yellow Flag: Click on Green flag, it will turn Yellow and stop counting laps, click again on flag to continue
- Note: Lap gets detected/counted after passing the sensor bridge, not when entering the sensor bridge, which may have someone think the system is not working.
- Race can start anywhere on the track, it is not recommended to start race under or near the bridge

Race Data... Where is it? How to view it?

- Race files and Lap Time files can be found in My Documents\TrackmateRClapCounter\data
- For quick access use File>View race data from top menu
- For advanced computer users...you can also find lap times in a .CSV format if you wish to use excel.

Sounds

- You can add .wav sounds to the directory My Documents\TrackmateRClapCounter\sounds
- Enabling too many voice announcements may cause announcements to fall behind and not be able to keep up,

Hot Keys and hidden features

S : Start Race,Abort,Reset Button

0 TO 9 : Reset best lap time in practise, use number key that corresponds to racer ID number shown in the left column

On the race screen you can click on certain things...

Click on Lap number to Display all laps on a separate form

Click on Transponder number to add Racers name to transponder number

Edit Laps

If you have edit laps enabled in options you can use

Hold Shift/Ctrl and a number 0 to 9 which is ID of racer

SHIFT 0-9 : Add lap

CTRL 0-9 : Remove a lap

Files for racers, sound, lap times and race results

Files can be found in *MyDocuments\TrackmateRClapCounter*

All race results and laptime files have a date and timestamp

YYMMDD-HHMM

You can add your own .wav sound files in the *sound* directory.

There is also a text file for the racers' names and transponders which you can edit with notepad.

Display

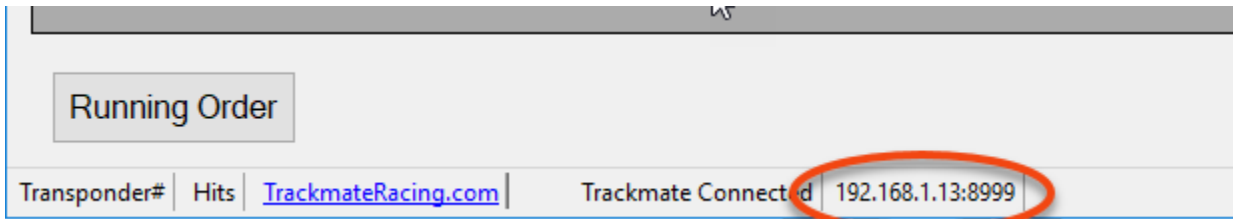
The main display can be resized and text size will automatically resize, please report any display problems you may encounter. Bottom Left corner of the screen will always show the last transponder detected, even when not racing. Number after is number of hits, meaning how many times a transponder got detected when going through the sensor bridge, the higher the number the better, if numbers are 3 or less verifying installation of transponder is recommended to ensure reliable lap counting.

View Laps and race results

Click on View to see all lap times for all racers, or click on lap number to see laps of one racer only

Server

This is experimental. You can view live race results on any device, such as your iPhone, Android, tablet. Devices must be on the same wifi network. Just click *Server* on the top menu, windows will pop up a message about firewall click Allow. Run a web browser on your device and go to 192.168.x.x:8999. See bottom status bar for the exact address you must enter.



If there is interest in this feature, I will improve it. Feel free to email me for suggestions.

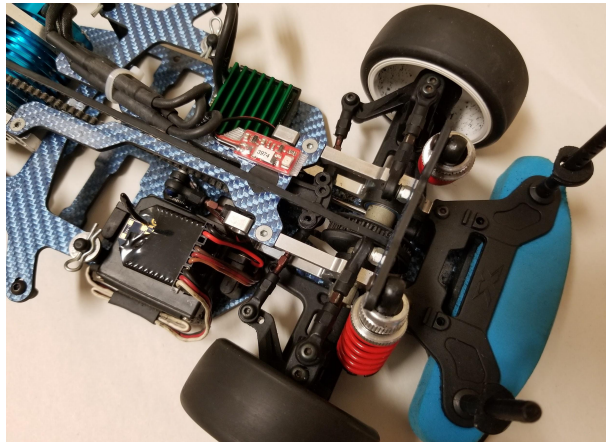
When loading the url you will see several files. Click on LiveRactData.html to see the current race

You can also view previous race data. Files have a date code year,month,day -YYMMDD-HHMM

Installing Transponders

The transponders should be under the windshield, with nothing obstructing the infrared LED (The small white square). The transponder's red or blue LED will blink about every 7 seconds when it is powered on. The green LED on the controller lights up when it is powered on. The yellow LED will light up when it detects a transponder.

Half Scale



Mini-z



On a Mini-z 1:24 scale you can mount the transponder with sided tape.

Transponder wired for mini-z with 2.4ghz radio

If your Mini-z has a 3 pin connector, then plug your transponder into the 3 pin connector.

If your Mini-z has a 3 pin connector and a 4 pin connector then plug the transponder in the 4 pin connector. The transponder will be powered only when the power switch is on. Note that the Mini-z sports series no longer has 5 volts on the white connector so a connector adapter with small eyelets is used to connect the transponder to the battery.

Traxxas



If there's no clear windshield...

Create a small hole in the body and place the white square on the transponder aligned with the hole. Diameter of the hole should be roughly equal to the distance the transponder is from the body. So try to mount the transponder up close to the body if you want a small hole. Hole should align with the white square on the transponder. It does not have to be a hole, removal of paint will work also.

Large Scale

Personally, I like using a zip tie to secure the transponder. The white square on the transponder is the infrared LED, so ensure that you don't cover that. Velcro is not recommended.

FAQ - Frequently Asked Questions

Remove it out of DEMO mode

Go to "Settings>Installation Settings" and select Iridium.

For Version 7.0+ Go to settings and uncheck demo

It won't count laps

Is the green LED ON, on the controller? If not, check the power plug. Does the yellow LED come on when the transponder is in range? If not, check overhead detector cables.

Did you click the start button on the main screen to start Race? Clock must be counting to count laps. Ensure that you have the correct com-port selected.

It only counts every other lap

Check the minimum lap time setting. It should be set lower than the best possible lap time.

ID shows up on screen instead of name

Go to Racers and verify that the correct ID number was entered.

Transponder LED is blinking rapidly

This can be caused by very low battery voltage or it could be plugged in backwards or in the wrong port.

Troubleshooting

Laps are counted when the transponder leaves the sensor bridge, not upon entering it. Remember this while testing, as it may give the impression that the transponder is not working properly. The Yellow LED will light up on the controller when the transponder is within range of the overhead detectors. This is very useful as you can roll your car through the bridge and expect to have the transponder in range about one foot before and one foot past the bridge.

Warranty and Return

Trackmate system hardware carries a one year warranty from the date of original purchase. In the event that the hardware requires to be returned please contact us first for an authorization and return instructions. Please note shipments returned to us without an authorization will be refused.

Trackmate Products

More Interesting Products from Trackmate Racing

- Power Supplies
- Slot car driver stations
- Slot car mini relay panel
- Slot car controllers
- Sell Time
- Drag Racing Timing for slot cars, R/C cars, Cars, ATVs etc.
- RC transponders / Lap Counters (for radio controlled cars)
- Sports Timers
- Custom Timing Solutions

For more information on these products, visit

www.TrackmateRacing.com

Trackmate Racing

Web: www.trackmateracing.com

Support: support@trackmateracing.com

Sales: sales@trackmateracing.com

Call: 877-756-8227 Toll Free USA and Canada