



RC Lap Counter

Version 7.4

<https://TrackmateRacing.com>

Hardware Installation

Bridge should be around 22 inches off the ground. For small 1:24 scale like mini-z, bridge should be around 8 inches off the ground.

Hardware FAQ and Troubleshooting

Transponder LED blinks rapidly is that normal?

No, the transponder should blink about once every 7 seconds, a rapid blink may indicate Very low battery voltage, or the transponder is plugged in backwards. Don't connect the transponder to the motor output.

What height should the bridge with sensors be at?

Bridge should be approximately 22 inches off the ground. Lower for a smaller scale, Like Kyosho Mini-z 1:24 scale the bridge should be at 7 or 8 inches.

What is the maximum voltage for the transponder?

The transponder normally plugs into a servo port, but if you need to connect to power directly 13 volts is the maximum, so a 1s,2s or 3s lipo battery is ok.

I can't get the transponder to work on my Kyosho Mini-z car?

Try both the 3 and 4 pin ports (both ends). When the transponder is connected properly the LED should blink about every 7 seconds. If LED blinks rapidly something is wrong. Some Mini-z do not have the 5 volts available on ports so you will need to connect the transponder to the battery compartment terminal screws. Some newer Kyoshos will need to have the wires soldered to the main board. See YouTube video. <https://youtu.be/511RHXL87yQ>

How long of a cable can I have to the bridge?

You can have up to 100 feet it uses a regular network cable. Do NOT extend the USB cable between the decoder and computer

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 and 10 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
- 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.

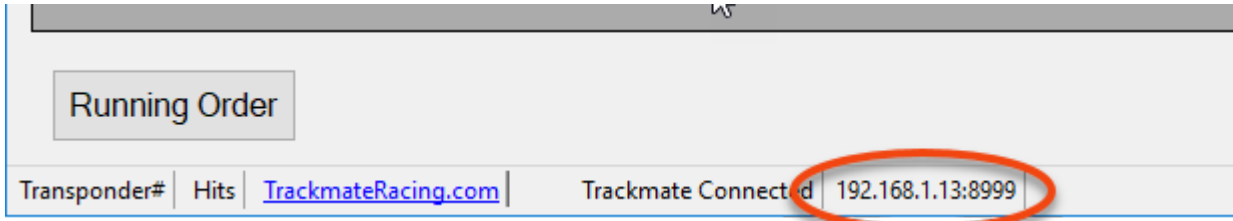
Number after is number of hits, meaning how many times a transponder got detected when going through the sensor bridge, the higher the number the better, if numbers are 3 or less verifying installation of transponder is recommended to ensure reliable lap counting.

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.

Updated Feb 2022

Software FAQ and Troubleshooting

How do I remove it from DEMO mode?

Go to Settings>Installation Settings and select *Iridium*

Testing

Laps are counted when the transponder leaves the sensor bridge, not when entering it. Remember this when testing, as it may give the impression that the transponder is not working, you must remove the transponder away from the sensor before it counts lap. The Yellow LED will turn on, on the controller when the transponder is within range of the overhead detectors.

It Won't count laps

Is the green light ON, on the controller? If not check 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

If the above is ok, make sure you have the correct com port selected in the settings.

It only counts every 2nd 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 correct ID number was entered

Website: [rc.lap.counter \(trackmateracing.com\)](http://rc.lap.counter(trackmateracing.com))