

HOLE-SHOT:

A "Hole-Shot Win" occurs when a driver wins a race because despite having a longer elapsed time (ET) the driver had a shorter Reaction Time (RT) at the start of the race.

Example:	Driver 1	Driver 2	
Faster Reaction	→ .051	RT .071	HOLE SHOT
Longer ET	→ 3.824	ET 3.813	Win to Driver
Speed does not matter	323.27	MPH 323.89	# 1

LAP RACING:

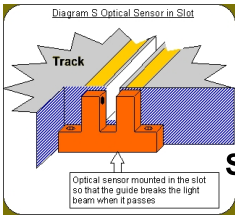
If selecting LAP Racing, you can then race FORMULA F1, NAS-CAR or CIRCLE Track Racing.

You must then connect sensors to your track at STARTING Locations for each lane. When a Car is over the sensor, the Display will show a car on lane #. Once all cars are covering sensors (Based on # of Drivers entered at Menu) then the STARTING LIGHT SEQUENCE will start. If a car should leave the position before the Green Light, a Foul Light will be shown and a buzzer will sound. You must reset the driver and the STARTING LIGHT sequence will begin again.

First enter the # of Drivers, then # of Lanes being used from 1-4 are available. Then enter the # of Laps you wish to race. The counter will count down till 0 for a Winner and display the winning Drivers Lane.

SENSOR LOCATIONS:

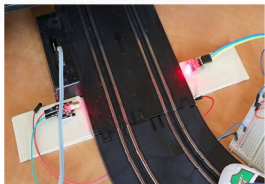
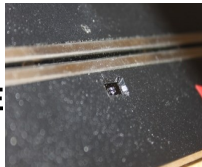
You must select how you wish to place your sensors on your tracks. Here are a few ideas.



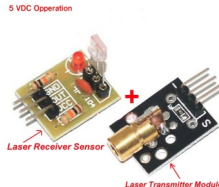
SLOT TYPE



CSD TYPE



LASER STYLE



Drag racing is a type of motor racing in which automobiles or motorcycles compete, usually two at a time, to be first to cross a set finish line. The race follows a short, straight course from a standing start over a measured distance, most commonly 1/4 mile (1,320 ft; 402 m), or a shorter (1,000 ft or 305 m) distance becoming increasingly popular, as it has become the standard for Top Fuel dragsters and Funny cars, where some major bracket races and other sanctioning bodies have adopted it as the standard. The 1/8 mile (660 ft; 201 m) is also popular in some circles. Electronic timing and speed sensing systems have been used to record race results since the 1960s. Speed Trap Sensors are normally set from Starting line at: **60 Ft – 330 ft or 660 ft – 1000 and Finish 1320 ft**. These sensors trap the speed and time of car as those distances.

Scale Lengths:

If using the DIA system for Scale Racing use these lengths: Drag Racing Track. For a 1/4 mile 1000 ft and 1320 ft. So to correctly run a track to scale you would need:

For 1/87 Scale (HO)

From Start Line Sensor: 60 ft = 8.16", 660 ft = 7'-7", 1000 ft = 11'-6", 1320 ft Finish = 15'-2".

For 1/64 Scale (S)

From Start Line Sensor: 60 ft = 11'1/4", 660 ft = 10'-4.75", 1000 ft = 15'-7.5", 1320 ft Finish = 20'-7.5".

For 1/43 Scale (O)

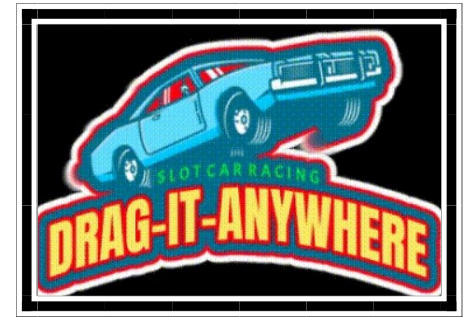
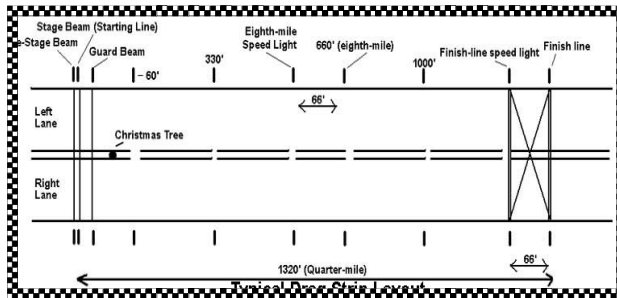
From Start Line Sensor: 60 ft = 1'-4.65", 660 ft = 15'-4.16", 1000 ft = 23'-3", 1320 ft = 30'-8.25".

For 1/32 Scale (# 1 Scale)

From Start Line Sensor: 60 ft = 1'-10.5", 660 ft = 19'-7.5", 1000 ft = 31'-3", 1320 ft = 41'-3".

For 1/24 Scale (G) Also Pinewood Derby Cars

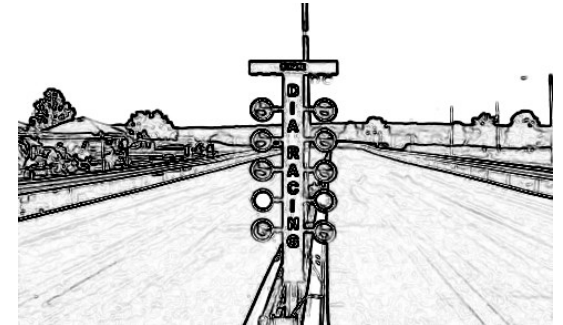
From Start Line Sensor: 60 ft = 2'-6", 660 ft = 27'-6", 1000 ft



DRAG-IT ANYWHERE®

SET-UP GUIDE

For 1/64 to 1/24 Scales



Mailing Address: PO Box 52
Helper, UT 84526

WebPages:
<http://DragItAnywhere.com>
Email: Dragitanywhere@etv.net

Phone: 435-472-4205



DRA G-IT-ANYWHERE®



DIA System Set Up:

Thank you for purchasing the Best Race Timing System on the market !!! This brochure will help you set up the DIA system in minutes and get you on the track racing. The DIA system was designed for all scales so anyone of any age can use it with their hobby sport. First make sure all components have been included, you should have the following:

1. **MAIN DIA TIMING** unit
2. **POWER SUPPLY** in 12 VDC for Main unit and or Add-On 5 VDC for LED Display if over 40 Feet.
3. **DATA Cables** in 4P4C & 6P6C for SPEED TRAP / LAP Counting, PRE-STAGE & STAGED Cables.
4. **SENSORS:** Different Type Sensors can be used, you were supplied the style requested. See our webpages for other available sensors.
5. **THERMAL PRINTER** Cable 6P6C Plug (*Thermal Printer sold separately*) 5-7 Volts
6. **LED DISPLAY:** MAX7219 Dot Matrix 5 x 25 Display or Smaller MAX7219 7 Segment Display .5 x 3.25
7. **LED DISPLAY SHIELD** based on racing scale.
8. **STARTING LIGHT SHIELD:** DRAG or LAP Style
9. **HANDHELD STARTER KEYPAD:** Used for starting and re-setting main DIA unit (*sold separately*)

If any item ordered was not in the box, contact us immediately.

We made it easy for you to connect all Sensors on the DIA system. Plug the 4P4C Phone style jack into the **Pre-Stage & Stage** ports. The **Tracks Sensors** only plug into the 1-4 **Speed Trap & LAP** Counter ports. The **LED Display** will plug into the display port and then into the **Display Shield**. Then into the LED Display if using one. Plug in all DATA Cables and run to desired locations on your Track. If using a **Thermal Printer**, plug cable included with Printer into the Printer Port. The voltage to the printer is supplied via the main unit.

The DIA unit is powered by 12 VDC so you can run the unit with optional external 12 VDC such as Solar panel (5 Watt Recommended), Lipo or NiMh, Car or Carbon batteries. A Supplied 3.5mm open wire plug was supplied as well. Unit should come on and the Screen will show welcome display with Club information (Unit can be customized with Track or Club Name, extra charge applies)

Once the unit is on, please check all sensors are lit up and are functioning properly. Make sure LED Display is on and show-

Once system and Sensors are aligned, select your Racing Type, # of Drivers, Lane Choice, Car Class, Tree Style, Dial-In, Scale, and SAVE. All information will be saved to memory in system. If any errors hit Back button or Reset Button on unit.

Selecting Race Type:

The DIA system has 2 Modes of Racing: DRAG RACING & LAP RACING. Lap includes all NASCAR, and Formula F1 Style racing. Drag Racing allows for 1-2 Lanes and Pro or Sport modes. Bracket Dial-In can be entered.

Number of Drivers:

Enter in the number of Drivers: LAP from 1-4 and Drag from 1-2

LANE:

Enter the lane you wish to drive in Drag mode, Left or Right.

Car Class:

Car class is entered into system, this does nothing other then record car class for Thermal printer on Time Slip.

Tree Style:

In Drag mode, you can choose from **PRO** or **SPORT** (Sportsman) Style tree lighting output. With the **Sportsman** Tree the three amber's march down in a .5 second sequence with the green illuminating .5 seconds after the third amber light. The goal is to "cut" a perfect .5 second light by anticipating the green. Anything under .5 seconds is a RED LIGHT.

With the **Pro Tree** the three amber's illuminate at the same instant with the green illuminating .4 seconds later. The goal is to "cut" a perfect .4 second light by anticipating the green. Anything under .4 seconds is a red light.

Your vehicle's reaction time (RT) could be anything from .2 to .5 seconds and is obviously influenced by "how deep" you stage. In the real world this has to be factored into your strategy. The driver's reaction time (RT) plus the (RT) is your universe in Drag Racing. Races are won or lost on the starting line.

DIAL-IN AKA Bracket Racing:

E.T. Bracket Racing is the most popular type of drag racing In this form of drag racing, two vehicles with different performance potential compete against each other but on the fair-est possible basis.



An example from ET Bracket Racing is Vehicle X has run the following times on the quarter mile: 11.68, 11.64 and 11.66 seconds and the driver selects a dial-in of **11.65** seconds. Vehicle Y has run the following times on the quarter mile: 10.17, 10.12 and 10.16 sec. and the driver chooses a dial-in of **10.15** sec. So minus 11.65 by 10.15 = **1.5 seconds**, so vehicle X will get a 1.5 second advantage over vehicle Y. If both vehicles drive the quarter mile exactly the time they have estimated, the victory will go to the driver who reacted the fastest at the starting lights (RT = reaction time) It also means, the driver first across the finish line. Both lanes are measured independently of each other and the time starts to count only when a vehicle starts to move. To win, you need to run closer to your dial-in than the other guy. There are three winning scenarios: Run as close to your dial-in as possible without going quicker, or breaking out. If both cars run faster than their dial-ins (called running under or breaking out), the racer closest to their dial-in wins. **Breaking out** is when a racer manages to cross the finish line in less time than the one he dialed-in beforehand. If only one car "breaks out", he is disqualified and the other one wins by default. If both cars break out, the one closer to the dial-in time wins. **A Foul start**, crossing the boundary line or wall, or failure to be at post-race inspection override any breaking out violations. Not all bracket racing classes have breaking out (NHRA Competition Eliminator).

Scale:

The DIA System automatically calculates Speed for the scale of your car. Although TIME is the same in any scale, SPEED is not ! If a real size Dragster does 3.7 seconds at 325 MPH, an HO 1/87 Scale will not be going 325 mph. So our design experts figure the correct formula to display a racing speed based on scale.

SAVE:

The DIA System will save all data entered at menu, the data is kept in storage even if powered off.

Time Slip – Thermal Printer:

After you make a run, you can select to print a Time Slip. It tells you how well you launched, how quick and fast you went at various points on the track, and what