

2B Competitor Rules

2B.1 General Track Rules

2B.1.1 Safety

1. Riders must wear shoes, knee pads and gloves (definitions in chapter ??).
2. Helmets are required for Downhill Gliding. Riders on wheels larger than 24 Class (or with gearing) must also wear helmets.

2B.1.2 Unicycles

1. Only regular unicycles may be used. Riders may use different unicycles for different ~~raeing~~*track* events, as long as all comply with the rules for events in which they are entered.
2. ~~Wheel sizes for track racing are 20 Class, 24 Class and 29 Class. Additional groups for 16 Class or other wheels can be added.~~ When not otherwise specified, 24 Class is the maximum ~~wheel size~~*Unicycle Class* above age 10. For age groups with a maximum age of 10 or younger, the maximum ~~wheel size~~*Unicycle Class* is 20 Class ~~(or smaller, if smaller sizes are also used).~~ ~~Unless otherwise specified, it~~*It* is allowed to ride in any particular Class with a unicycle that fully conforms to a smaller Class (e.g. a 20 Class unicycle is allowed in a 24 Class race).
3. The youngest age group for 24 Class wheels should have a minimum age of 0, so riders 10 and younger have the option of racing on 24 Class with those groups (e.g. 0-8 on 20 Class, 9-10 on 20 Class, 0-13 on 24 Class).
4. ~~For events divided by wheel size, t~~*There is an* allowable tire diameter range and minimum crank arm length for each Unicycle Class:

Unicycle Class	Outer <i>Wheel</i> Diameter Range	Min Crank Length	Transmis- sion
16 Class	0 < 418mm	89mm	regular
20 Class	more than 418mm – 518mm	100mm	regular
24 Class	more than 518mm – 618mm	125mm	regular
29 Class	more than 618mm – 778mm	No limit	regular
Unlimited Class	No limit	No limit	unlimited

5. Any unicycles in question must be checked for compliance within their wheel class (wheel diameter, crank length and transmission), with the tire pressure that will be used in the race. Preferably, this check is carried out immediately before the race. Crank arm length is measured from the center of the wheel axle to the center of the pedal axle. Longer sizes may be used.
6. In all track racing events ~~on regular unicycles~~, shoes must not be fixed to the pedals in any way (no click-in pedals, toe clips, tape, magnets or similar).

2B.1.3 Wheel Size Categories

1. ~~Wheel sizes for track racing are 20 Class, 24 Class and 29 Class. Additional groups for 16 Class or other wheels can be added. When not otherwise specified, 24 Class is the maximum wheel size above age 10. For age groups with a maximum age of 10 or younger, the maximum wheel size is 20 Class (or smaller, if smaller sizes are also used).~~
2. ~~The youngest age group for 24 Class wheels should have a minimum age of 0, so riders 10 and younger have the option of racing on 24 Class with those groups (e.g. 0-8 on 20 Class, 9-10 on 20 Class, 0-13 on 24 Class).~~
3. ~~Unless otherwise specified, it is allowed to ride in any particular Class with a unicycle that fully conforms to a smaller Class (e.g. a 20 Class unicycle is allowed in a 24 Class race).~~

2B.1.4 Rider Identification

1. Riders must wear their race number clearly visible on their chest so that it is visible during the event and as the rider crosses the finish line (as relevant).
2. Additionally, the rider may be required to wear a chip for electronic timing.

2B.1.5 Riders Must Be Ready

1. Riders must be ready when called for their races *or attempts*. Riders not at the start ~~line~~ when their race *or attempt* begins may lose their chance to participate. The Starter *or the Referee* will decide when to stop waiting, remembering to consider language barriers, and the fact that some riders may be slow because they are helping run the convention.

2B.1.6 Protests

1. Protests must be filed on an official form. Mistakes in paperwork, inaccuracies in placing, and interference from other riders or other sources are all grounds for protests. All Referee decisions are final, and cannot be protested.

2. For a large event such as Unicon or continental championships, the default protest time is 60 minutes (counting from the posting of results), the minimum is 30 minutes. For smaller events, the default protest time is 30 minutes, the minimum is 15 minutes. Every deviation from the default protest time has to be clearly announced when the results are posted, including stating the protest deadline on the results list itself. The protest time may be extended for riders who have to be in other races during the protest period.
3. All protests will be acknowledged within 30 minutes from the time they are received, and an effort will be made to settle the issue within those 30 minutes.

2B.1.7 ~~Second~~New Attempt After ~~Obstruction~~Hindrance or Interference

1. If a rider is ~~hindered~~*obstructed* due to the actions of another rider, or outside interference *during an attempt*,~~either during the start or during the race~~, ~~he or she~~*they* may request to make a ~~second~~*new* attempt. The Referee decides if the request is granted. A ~~second~~*new* attempt must not be granted to a rider who is disqualified based on something that happened before they were ~~hindered~~*obstructed*.
Note: No complete definition of ~~hindrance or interference~~*obstruction* can be given, but it does include cases where a rider swerves, hesitates and/or decelerates because this is arguably necessary in order to avoid a crash or potential crash.
2. If the request is granted, *the rider will be given a new attempt in technical disciplines. In the case of racing disciplines*, the Referee has two options *according to 2.1 and 2.2 for an age group race, in case of a final race, the Referee has the option 2.3.*

2.1 Re-run the whole heat in question.

In general, this option is preferred only if the heat includes the fastest riders within an age group. For the other riders in the heat, riding again is optional. If they decide to ride again, they agree to discard their previous result. If they don't ride again, their previous result stands. If none of the other riders want to ride again, the Referee reverts to option 2.2.

2.2 Do any of (a), (b) or (c), depending on the conditions.

In general, this option is preferred if the heat in question did not include the fastest riders within an age group:

- (a) If possible, the rider is added to an upcoming heat in his own age group; or
- (b) If possible, the rider is added to an upcoming heat in another age group; or
- (c) If none of the above is possible, the rider does his second attempt in a dedicated heat.

In option 2.2 (c), the rider decides ~~if he wants company or not~~*whether or not to have company*. ~~He~~*They* can pick the riders, but cannot hold up the proceedings to wait for them if other riders are available. The Referee has the final say as to which extra riders are allowed to participate in such a heat. It must be stated clearly to any accompanying riders that their result is not official.

2.3 Re-run the whole final.

In the case of a final race the entire final must be re-run. This means that the initial run will be fully cancelled and only the new run will count for all riders of the final. Since a re-run of the entire final is a serious decision, the referee may only grant a re-run if there is a cause so serious to the entire final that a re-run of the race is justified.

3. In all cases, if the ~~hindered~~*obstructed* rider is allowed to do a ~~second~~*new* attempt and decides to do so, the first ~~run~~*one* is canceled and only the ~~second~~*run*~~new~~ *one* counts regardless of the result. In the case where a ~~second~~*new* attempt was incorrectly granted, for example when the rider was disqualified based on something that happened before the ~~hindrance~~*obstruction* in question occurred, the result of the ~~second~~*new* attempt for that rider does not count and the result from the first ~~run~~*one* stands.
4. In non-lane-*bound* races, if a rider is forced to dismount due to a fall by the rider immediately in front, it is considered part of the race – not a reason to grant a ~~second~~*new* attempt – and all riders involved may remount and continue. The Referee can override this rule if intentional ~~interference~~*obstruction* is observed.

2B.1.8 Finals

1. At Unicons, a ‘final’ must be held for each of the following ~~raees~~*disciplines*: 100 m, 400 m, 800 m, One Foot, Wheel Walk, and IUF Slalom. For any other Track discipline, a ‘final’ may be held at the discretion of the organizer, after all age group competition for that discipline has been completed.
2. Finals are subject to the same rules as age group competition, including false start rules and number of attempts. For disciplines that are run in heats, ~~such as 100m raees or relay raees~~, this will take the form of a final heat. For disciplines that are not run in heats, ~~such as IUF slalom or slow balance~~, the final will take the form of successive attempts by the finalists.
3. The riders posting the best results regardless of age in the age group ~~heats~~*competition* are entitled to compete in the final. They can be called “finalists”. For each final, the number of finalists (finalist teams in case of relay) will be eight, unless for an event that uses lanes, the number of usable lanes is less than eight. In that case the number of finalists equals the number of usable lanes. Finals are composed regardless of age group, but male and female competitors are in separate finals.
4. The best result in a final determines the male or female Champion for that discipline (World Champion in the case of Unicorn). If a finalist disqualifies, gets a worse result, or doesn’t compete in the final, ~~his/her~~*their* result in age group competition will still stand. The male and female winners of the finals will be considered the Champions for those disciplines, even if a different rider posted a better result in age group competition. In disciplines for which no finals are held, finalist status will still be awarded on the basis of results in age group competition. Accordingly, riders posting the best results in each discipline are the Champions for that discipline.
5. Speed records can be set in both age group competition and finals.

2B.2 Racing Disciplines

2B.2.1 100 m Race

~~In the 100m race, riders must stay in their lane.~~

1. ~~Lane-bound race over 100 m, where riders are started in separate lanes but from a common start line. No remounting after a dismount is allowed.~~

2B.2.2 200 m Race

1. ~~The 200m race is started~~ Lane-bound race over 200 m with a stagger start, where riders are started in separate lanes, at separate locations. *No remounting after a dismount is allowed.* ~~In the 200m race, riders must stay in their lane.~~

2B.2.3 400 m Race

1. ~~The 400 m race is started~~ Lane-bound race over 400m with a stagger start, where riders are started in separate lanes, at separate locations. *No remounting after a dismount is allowed.*

~~In the 400m race, riders must stay in their lane.~~

2B.2.4 800 m Race

1. There are two different ways to run ~~an 800m race~~ the race over 800 m, remounting after a dismount is allowed in both ways:

1.1 800 m Race with Stagger Start:

Riders are started in separate lanes, at separate locations. The race must be run ~~in lanes~~ as lane-bound race as far as the nearer edge of the breakline where riders may leave their respective lanes. After the breakline, ~~non-lane racing rules apply (see section ??)~~ the race must be run as non-lane-bound-race. The breakline must be an arced line marked after the first bend across all lanes other than lane 1. To assist ~~athletes~~ riders identify the breakline, halved tennis balls can be placed on the lane lines immediately before the intersection of the lines and the breakline.

1.2 800 m with Waterfall Start:

Riders are started at a *common but* curved starting line that places all riders an equal distance from the first turn. *The race must be run as non-lane-bound-race from the start.* ~~If a waterfall start is used, non-lane rules apply from the start.~~

2B.2.5 One Foot Race

~~The distance of the One Foot Race is 50m.~~

1. *Lane-bound race over 50 m, where* riders may pedal with both feet for the first 5 meters, but must be pedaling with only one foot after crossing the 5 m line. *All riders start in separate lanes but from a common start line. No remounting after a dismount is allowed.*
2. The non-pedaling foot must have left the pedal when the tire contact point crosses the 5 m line on the track. The non-pedaling foot may or may not be braced against the unicycle fork.

2B.2.6 Wheel Walk Race

1. *Lane-bound race, where riders* propel the unicycle only by pushing the tire with one or both feet. Riders in age groups with a maximum age of 10 or younger will race a 10 m Wheel Walk. All other riders will race a 30 m Wheel Walk. Riders start *in separate lanes but from a common start line*, mounted, with one or both feet on the tire. *No remounting after a dismount is allowed.*
2. No contact with pedals or crank arms is allowed *during the race*.
3. No crank arm restrictions *apply*.

2B.2.7 Relay (Track)

1. The *standard* relay distances ~~shall~~*must* be 4 x 100 m ~~or~~*and* 4 x 400 m like in athletics. Remounting after a dismount is allowed in all relays.
 - 1.1 *The 4 x 100 m relay is a lane-bound race for all legs. The race is started with a stagger start, where riders are started in separate lanes, at separate locations.*
 - 1.2 *The 4 x 400 m relay is a lane-bound race for the entire first leg. The second leg must be run as lane-bound race as far as the nearer edge of the breakline where riders may leave their respective lanes. After the breakline, the race must be run as non-lane-bound-race. The race is started with a stagger start, where riders are started in separate lanes, at separate locations.*
2. In the 4 x 100m relay each takeover zone ~~shall~~*must* be 30m long, in the 4 x 400m relay each takeover zone ~~shall~~*must* be 20m. The takeover zones must be marked on the track. (The zones ~~shall~~*must* start and finish at the edges of the zone lines nearest the start line in the running direction.)
 - 2.1 In the 4 x 100 m relay, riders are not permitted to line up outside their takeover zones, and must start within the zone.

2.2 In the 4 x 400 m relay, there is no defined preparation area for the next riders ~~as long as they stay within their lanes~~. *The riders of the second leg must line up in the lane assigned to their relay team at the start. The riders of the third and fourth legs must, under the direction of a designated judge, place themselves in their waiting position in the same order (inside to out) as the order of their respective team members as they enter the last bend. Once the incoming riders have passed this point, the waiting riders must maintain this order and may not change their positions. Waiting riders can take an inner position on the track as incoming team members approach, provided they do not obstruct another rider.*

If a rider does not follow this rule, their team must be disqualified.

3. *A baton must be used for all relays and must be held by hand throughout the race. The baton must be a smooth hollow tube with a circular cross-section, made of wood, metal or other rigid material in one piece. It must be no longer than 0.30 m and no shorter than 0.28 m. The outer diameter must be 40 mm (± 2 mm) and the weight must not be less than 50 g. For relays in age groups with a maximum age of 10 or younger the outer diameter of the baton may be smaller but must not be less than 31 mm. It is recommended that the batons have different colors that are clearly visible during the race.*
4. ~~Riders may remount if necessary, and must pick up the baton if it is dropped.~~ *If the baton is dropped, it must be picked up by the rider who dropped it. To retrieve it, they may leave their lane, as long as they do not obstruct another rider. The rider must continue the race from the point where the baton was last in their hand. If a rider does not follow this rule, their team must be disqualified.*
5. The handover of the baton must be within the takeover zone. This means that before the baton crosses the start mark of the takeover zone only the incoming rider is in touch with the baton and at the end of the takeover zone only the outgoing rider is in touch with the baton. Riders may not throw the baton to make a pass and may not touch the ground with any part of their body while making a pass. If the baton is not handed over within the marked takeover zone, the team will be disqualified. ~~Leaving of the lane within the takeover zone or when remounting does not result in disqualification as long as the riders do not obstruct, impede or interfere with another riders progress.~~
6. *Each member of a relay team may ride one leg only.*
7. Mixed male/female teams may be used, and reasonable age groups may be used depending on the number of expected competitors of the event. Each relay team may have any mix of ages, the age of the oldest rider determines the age group.

2B.2.8 Other Wheel Size Races

1. ~~The host can choose to offer additional track events based upon other wheel size requirements. Two examples include 700c racing and Unlimited. Exclusive of unicycle requirements, all other track racing rules apply.~~

- 1.1 ~~In the 700c wheel category, unicycle wheels must be larger than 618mm in diameter, have a maximum bead seat diameter (BSD) of 622 mm, and there are no restrictions on crank length.~~
- 1.2 ~~An unlimited race is one in which there are no unicycle size restrictions. Any size wheels, any length crank arms, giraffes or any types of unicycles (see definition in chapter ??) are allowed.~~

2B.3 Racing Rules

2B.3.1 The Start

1. ~~This procedure is used for all Track Races.~~ Unless noted otherwise, riders start mounted, holding onto a starting post or other support, with the fronts of their tires (forward most part of wheel) behind the edge of the starting line that is farthest from the finish line. Riders may start from behind the starting line if they wish, provided all other starting rules are followed. Riders may place starting posts in the location most comfortable for them, as long as it doesn't interfere with other riders.
2. Rolling starts are not permitted in any race. Riders may lean before the start, but their wheels may not move forward during the start beeps or counting down. Rolling back is allowed.
3. *All commands of the starter are to be given in English at Unicon or international competitions. At other competitions, English is optional.*
4. *After the command "Ready", all riders must move to their starting position. As soon as the Starter is satisfied that all riders are steady in the correct starting position, he gives the command "Attention" and starts the race. This can be done by a start sequence as follows:*

4.1 Usually, a start-beep apparatus is used. This provides a six-count start: "beep - beep -beep - beep - beep - buup!" The timing between (the start of) successive beeps is one second. The first five beeps have all the same sound frequency. The final tone (buup) has a higher frequency, so that the competitors can easily distinguish this tone from the rest. The proper moment to start is the beginning of the final tone.

***Note:** Commonly used electronic starting devices use frequencies of about 650 Hz for the first five tones and about 795 Hz for the sixth tone.*

4.2 As an alternative, the Starter will give a three-count start before firing a starting gun on the fourth count. Example: "One, two, three, BANG!" The time between (the start of) each of these elements ~~should~~*must* be the same, and *should* approximately $\frac{3}{41}$ seconds. ~~This allows riders to predict the timing of the gun, for a fair start.~~

Both variants allow the rider to start leaning ahead of the "buup/BANG", for an exact and predictable start. It is recommended to use one or the other of those two options for all races in a competition if possible. The option to be used must be announced in advance of the competition.

5. *If the Starter is not satisfied that all is ready for the start to proceed after he gave the command “Ready” and the riders are on their starting position or they otherwise abort the start, the command should be “Go Back”. If a start-beep apparatus is used and the start sequence is already started the start should be aborted by blowing a whistle or other clear and predefined signal.*

Where a rider in the judgement of the Starter, after the command “Ready”,

5.1 causes the start to be aborted, for instance by dismounting, without a valid reason (such reason to be evaluated by the Starter); or

5.2 does not place themselves in their final starting position at once and without delay; or

5.3 disturbs other riders in the race through sound, movement or otherwise,

the Starter must abort the start. The Starter may warn the rider for improper conduct (disqualify in case of repeated infringement of the Rule). However, when an extraneous reason was considered to be the cause for aborting the start, or the Referee does not agree with the Starters decision, no rider gets warned or disqualified. This decision must be clearly indicated to the riders.

2B.3.1.1 False Start

1. A false start occurs if a rider’s wheel moves forward before the start signal, ~~or if one or more riders are forced to dismount due to interference from another rider or other source.~~
2. If a heat has to be restarted, the Starter will immediately recall the riders, for example by blowing a whistle or other clear and predefined signal. *Any warning or disqualification resulting from this must be clearly indicated to the riders in question.*
3. There are two options on how to deal with false starts:

3.1 One False Start Allowed Per Heat: *The use of this option is strongly discouraged when no electronic false start monitoring system is used.* After the first false start of a particular heat, all riders *receive a warning and* may start again. Thereafter, any rider(s) causing a false start are disqualified for this event. *Only the earliest false starting rider gets assigned this false start and the associated disqualification.* ~~This option should not be used without an electronic false start monitoring system.~~

3.2 One False Start Allowed Per Rider: After the first false start of a particular rider in a heat, the rider in question receives a warning and may start again. Any rider(s) causing their personal second false start are disqualified *for this event.* Only the earliest false starting rider gets assigned this false start and the associated warning or disqualification.

It is recommended to use one or the other of those two options for all races in a competition if possible. The option to be used must be announced in advance of the competition.

2B.3.2 The Race

2B.3.2.1 Obstruction

1. ~~This~~ *Obstruction* includes *jostling, blocking*, intentionally interfering ~~in any way~~ with ~~another~~ a rider *in any way*, ~~deliberately crossing in front of another rider to prevent him or her from moving on, deliberately blocking another rider from passing, or and~~ distracting ~~another~~ a rider with the intention of *slowing them or* causing a dismount *during a race*. *Jostling should be understood as physical contact between riders and/or their unicycles. Blocking should be understood as* deliberately crossing in front of ~~another~~ a rider to prevent ~~him or her~~ *them* from moving on, or deliberately preventing ~~another~~ a rider from passing.
2. *If a rider is obstructed during a race and the referee*
 - 2.1 *considers the obstruction to be unintentional, not caused by any specific rider, or if the source of the problem cannot be determined, no penalty may be imposed on any rider for it.*
 - 2.2 *finds another rider to be responsible for the obstruction, that rider (or in case of a relay competition, their team) must be disqualified for this race/event.*
3. A rider who ~~is forced to dismount due to interference by another rider~~ *was obstructed* may file a protest immediately at the end of the race. *The Referee may, if they consider that the rider (or their team) was seriously affected by the obstruction, grant a new attempt in accordance with rule 2B.1.7 New Attempt After Obstruction.*
4. ~~Riders who intentionally interfere with other riders may receive from the Referee a warning, a loss of placement (given the next lower finishing place), disqualification from that race/event, or suspension from all races.~~

2B.3.2.2 ~~Lane Use~~ *Lane Infringement*

1. ~~In most races, a rider must stay in their own lane, except when the rider has to swerve to avoid being involved in a crash. In all other cases, a rider who goes outside their lane is disqualified. Going outside a track lane means that the tire of the unicycle touches the ground outside his assigned lane. Riding on the marking is allowed.~~
2. ~~No physical contact between riders is allowed during racing.~~
 1. *In all races or sections of races:*
 - 1.1 *that are lane-bound, riders may not leave and ride outside their assigned lane. Riding outside of a lane means that the tire of the unicycle touches the marking on either side of the assigned lane, this means riding on the markings is not allowed.*
 - 1.2 *that are non-lane bound, riders may not leave lane 1 to the inside. Leaving lane 1 to the inside means to ride on or inside the kerb or line marking of the track border.*

If a rider violates this rule, they (or in case of a relay competition, their team) must be disqualified. This does not apply to cases described in paragraph 2.

2. *A rider (or in case of a relay competition, their team) must not be disqualified if the rider:*

2.1 is pushed or forced by another person or object to leave their lane or ride on or inside the kerb or line marking of the track border, e.g. to avoid being involved in a crash, or

2.2 rides outside their lane on the straight or rides outside the outer line of their lane on the bend

2.3 leaves the lane during a relay competition to pick up the dropped baton

and does not gain a material advantage by doing so and does not obstruct another rider in the process. If, in the judgement of the referee, a material advantage is gained and/or another rider is obstructed, the rider (or team) must be disqualified.

2B.3.2.3 Passing ~~in Non-Lane Races~~

1. *In all races or sections of races:*

1.1 that are lane-bound, passing riders as well as riders being passed should strive to not extend any body part into the next lane to avoid any obstruction of the other rider.

*1.2 ~~In non-lane-bound races, an overtaking rider~~ that are non-lane bound, riders must pass on the outside, ~~unless there is enough room to safely pass on the inside. Riders passing on the inside are responsible for any fouls that may take place as a result.~~ The passing rider is responsible for maintaining a safe distance from the rider being passed, ~~The slower rider~~ the rider being passed must maintain a reasonably straight course and must not *block or* interfere with the ~~faster~~ passing rider. *This applies from the beginning of the pass (this is the case when the wheels start to overlap, as seen from the side), until the passing rider is a safe distance in front of the rider being passed. ~~Riders must maintain a minimum of one (24 Class) wheel diameter (618 mm as judged by eye) between each other when passing, and at all other times.~~* A safe distance is half a lane width (610 mm as judged by eye; this distance is also approximately one 24 Class wheel diameter) from wheel to wheel. ~~This is measured from wheel to wheel, so~~ means that one rider passing another may come quite close, as long as their wheels remain at least ~~618~~610 mm apart.*

If, in the judgement of the referee, a rider violates this rule and obstructs another rider, they (or in case of a relay competition, their team) must be disqualified.

2. ~~No physical contact between riders is allowed.~~

2B.3.2.4 ~~Dismounts~~ *Remounting* and Assisting Racers

1. Except for the 800m, Relay races, and other races where this is announced in advance, *remounting after a dismount is not allowed.*
2. *In all races:*
 - 2.1 *in which remounting after a dismount is not allowed*, after a dismount the race may not be continued and will be considered as not finished (DNF - Did Not Finish).
 - 2.2 ~~In races where riders are allowed to remount and continue~~ *in which remounting after a dismount is allowed*, riders must immediately remount at the point where the unicycle comes to rest, without running. If a dismount puts the rider past the finish line, the rider must back up and ride across the line in control, in the normal direction. ~~In races where riders are allowed to remount, the r~~ Riders must mount the unicycle completely unassisted. Spectators or helpers may help the rider to ~~his or her~~ *their* feet and/or retrieve the dropped unicycle, but the rider (and the unicycle) may not have any physical contact with any outside object or person, including a starting block under the wheel, when mounting.

2B.3.3 The Finish

1. The finish moment is when the front of the tire crosses the finish. The exact location of the finish is the edge of the finish line that is nearest to the starting line. Riders are thus not timed by outstretched bodies.
2. At the finish moment, riders must be mounted and in control of the unicycle. "Control" is defined as follows:
 - (a) in regular races: the rider has both feet on the pedals; or
 - (b) in one-foot races: the rider has one foot on a pedal; or
 - (c) in wheel walk races: the rider continues to wheel walk.
3. In races ~~where dismounting~~ *in which remounting after a dismount* is allowed (800m, Relay, etc.), in the event that a rider does cross the finish line but not in control, the rider must back up on foot, remount and ride across the finish line in control. ~~In races where dismounting is not allowed, the rider is disqualified.~~
4. *When a rider dismounts while crossing the finish line and has to back up, remount and cross the finish properly, it may happen that the first (illegal) finish is timed, and that this prevents the timing system from recording the time of the actual (proper) finish. (This may happen with a light beam finish timing system, or one based on chip timing. It will usually not happen with a modern slit camera system.)*

If possible, the proper finish time must be reconstructed or estimated from whatever data is available, such as legitimate finish times of other riders in relation to the rider in question, video, photographs, or a "manual" reading from a running time display.

If it is in no way possible to assess an actual finish time, the riders time will be recorded as 0.01 seconds faster than the next rider to cross the line after their remount

and crossing. In this way, the heat finish order is preserved. If the rider in question is the last one on the track, the time recorded should be the best possible estimate of their actual time crossing the finish line after their remount.

2B.4 Technical Disciplines

~~In general, and as relevant, the rules above described for Track Racing Disciplines also apply to the Technical Disciplines below. These include, but are not limited to, rules describing false starts, lane use, dismounts, and sections such as “Riders Must Be Ready” and “Second Attempt After Hindrance or Interference.”~~

2B.4.1 IUF Slalom

Figure 2B.1: IUF Slalom Course

- ~~1. Pictured here is the IUF Slalom, in which you must ride around 10 cones in the correct pattern. Remounting is not allowed. The IUF Slalom is a parcours consisting of 10 cones, as shown in figure 2B.1, which must be run through as fast as possible in the correct pattern, without knocking cones over. No remounting after a dismount is allowed.~~ Riders get two attempts.
- ~~2. The rider has to start directly behind the Start line. The Starter gives the opening by indicating the start of the 3-second time window to cross the start line, and then the rider has to start during the next 3 seconds.~~ The timer is started when any defined point of the tire (for example the part that crosses a low light beam) crosses the start line, and stops when a similar point of the tire crosses the finish line. If the rider has not yet started after 3 seconds, the timer will start counting anyway. ~~The rider is not disqualified for this. This does not invalidate the attempt.~~ Time measurement at start and finish line must be identical to insure accurate time measurement.
- ~~3. It must be secured that riders do not gain momentum before crossing the start line (no flying starts). If a flying start occurs, the start must be aborted by a clear and predefined signal. Flying starts can be automatically detected and signalled to the rider, e.g. by a light barrier system behind the rider at the start or by the responsible judge. If this happens the first time during an attempt, the rider is allowed to start over, but if it happens the second time, the attempt is invalid.~~
- ~~4. Cones may be hit, but not knocked over, otherwise the attempt is invalid. The course must be followed correctly, including the direction of turns. Riders who go the wrong way around a cone can go back and make the turn the correct way with the clock still running, otherwise the attempt is invalid. Arrows marked on the ground should indicate the direction of the turns for riders unfamiliar with the course. The last cone must be completely circled before the rider’s time is taken at the finish line.~~
- ~~5. The cones used are plastic or similar material traffic cones. For official competition, eCones must be between 45 and 60 cm tall, with bases no more than 30 cm square and the base plate must fit inside a square with side length 32 cm. The cones should~~

be stable enough to stay put even in a stiff wind. Cones that do not have a round base plate must be aligned with at least one side parallel to the start/finish line.

6. The course must be set up accurately. The proper positions of the cones should be marked on the ground for a cone to be replaced quickly after it has been knocked over. *An area of at least 1.5 m in depth must be kept clear in front of the start line/behind the finish line, in which only equipment directly needed for timing is allowed to be located. With electronic timing, the light beams at the start and finish should be placed in such a way that the rider can cross the start and finish line at any reasonable location.*
7. *At least one practice course is required. If the practice course is not on a surface similar to the timed course, each rider should be allowed one practice run before their timed run. If they do not do both of their timed runs at the same time, another practice run should be allowed before the rider's second timed attempt.*

2B.4.2 Track Coasting

1. An event to determine which rider coasts the furthest distance. ~~Remounting is not allowed.~~ *No remounting after a dismount is allowed.* Riders get two attempts.
2. Crank arm rules do not apply.
3. There is a 30 meter speed-up distance. Riders' coasting distances are measured from a 'starting line' with a 5 meter minimum, which will be marked by a 'qualifying line.' The distance is measured to the rearmost part of the rider that touches the ground when dismounting, or to the tire contact point where the rider stops coasting. The farthest distance from the ~~line~~ *'starting line'* wins.
4. If the rider does not cross the qualifying line it will count as ~~a failed~~ *an invalid* attempt. If a rider crosses the coasting line (tire contact point) not in coasting position, ~~he or she is disqualified in that~~ *it will count as an invalid* attempt.
5. ~~The event should be held on a track or other very level, smooth surface that is as clean as possible. The track may be straight or curved. The competition must be held on a standard athletics competition track with the surface as clean as possible. The speed-up distance must begin with the straight, thus allowing the riders to first coast as far as possible on the straight before entering the bend. The inside must be on the left in the direction of coasting.~~
6. Ample time must be allowed for all ~~competitors~~ *riders* to make some practice runs on the course before the official start.
7. Wind must be at a minimum for records to be set and broken.

2B.4.3 Track Gliding

1. *An event to determine which rider glides the furthest distance.* In Gliding, the balance has to be kept all the time by the braking action between one or both feet and the top of the tire. If, for example, the foot loses contact with the tire due to small

bumps, the contact must be restored immediately. *No remounting after a dismount is allowed. Riders get two attempts.*

2. It is held on a track with the same rules as Track Coasting (~~see above~~) paragraphs 2. to 9. (2B.4.2), with the addition that the riding surface must be dry.

2B.4.4 Downhill Gliding

1. A downhill race *in gliding* for speed. In Gliding, the balance has to be kept all the time by the braking action between one or both feet and the top of the tire. If, for example, the foot loses contact with the tire due to small bumps, the contact must be restored immediately. Riders start from a standstill, or speed up to the 'starting line' ~~Riders and~~ are timed over a measured distance to the finish line. *No remounting after a dismount is allowed. Riders get two attempts.*
2. *Crank arm rules do not apply.*
3. Helmets are mandatory.
4. *The timer is started when any defined point of the tire (for example the part that crosses a low light beam) crosses the start line, and stops when a similar point of the tire crosses the finish line.*
5. *In case of a dismount before the finish line, it will count as an invalid attempt. ~~Dismounts before the finish line disqualify the rider in that attempt.~~*

2B.4.5 Slow Balance Forward

1. In Slow Balance Forward, the rider rides a distance of 10 meters in a continuous forward motion as slowly as possible without stopping, going backward, hopping or twisting more than 45 degrees to either side. Any age group with riders of 11 years or older must use a board of 15 cm wide. Any age group with no riders of 11 years or older must use a board of 30 cm wide at Unicon; in other conventions the host may choose to use either a 15 cm wide board or a 30 cm wide board for this age group. Tires may overlap the edges of the board, but if the tire contacts the ground next to the board, that would be the end of that attempt.
2. There are no crank arm length or wheel size restrictions for this event.
3. *The only required safety gear is shoes. ~~Riders must wear shoes. No other safety gear is required.~~*

2B.4.5.1 Timing

1. The position of the unicycle during Slow Balance is defined by the tire contact point.

2. In Slow Balance, the rider starts behind the starting line. On command by the starter, the rider has 10 seconds to start forward motion and let go off the starting post. The timer starts recording time when the tire contact point crosses the starting line. At this moment, the rider may not be in contact with the starting post anymore. Timers must watch the hands and the feet/wheel at the same time at that moment. The time stops when the tire contact point crosses the finish line.

2B.4.5.2 Optional Penalty Rules

1. At any bigger conventions where there is a large pool of judges (such as Unicon) it is recommended that the host uses a system wherein the judges may give penalties to riders who seem to make “micro-errors” or if the judges are in doubt whether an error was made. Examples of micro-errors are twisting about 46 or 48 degrees, or vibrations of the wheel. Each penalty subtracts one second from the ridden time. Using these penalty rules is especially discouraged for possible errors for which a reliable objective detection system is being used.
2. Riders are still disqualified for clear errors, such as riding off the board, dismounting or twisting 90 degrees.

2B.4.5.3 Age Group and Final Rounds

1. Age Group and Final rounds are always required.
2. **Age Group Round:**
 - 2.1 All riders must participate in the Age Groups. Riders get two attempts.
 - 2.2 The best 8 female and the best 8 male riders qualify for the finals.
 - 2.3 For Unicon a minimum of 20 seconds is required to achieve a valid result. For any age group with no riders of 11 years or older the minimum time is 15 seconds. Riders who don't reach this threshold are automatically disqualified. If your net time after penalties brings you below the minimum time, you are also disqualified. For other competitions than Unicon, the host may adjust the threshold to a lower time or have no threshold at all.
3. **Final Round:**
 - 3.1 The Judging team for the Finals must consist of a single group of people that watch every rider, or (insofar available) an accurate and reliable technical means to check adherence to the rules.
 - 3.2 Riders get two attempts.
 - 3.3 The champion is the rider who performs the best result in the final round.

2B.4.6 Slow Balance Backward

1. This is the same as Slow Balance Backward, with the following differences *in italic*:
 - 1.1 Riders ride *backward*.
 - 1.2 It is an error to ride *forward*.
 - 1.3 Any age group with riders of 11 years or older must use a board of *30 cm* wide. Any age group with no riders of 11 years or older must use a board of *60 cm* wide at Unicon; in other conventions the host may choose to use either a *30 cm* wide board or a *60 cm* wide board for this age group.
 - 1.4 For Unicon a minimum of *15 seconds* is required to achieve a valid result. For any age group with no riders of 11 years or older the minimum time is *10 seconds*.

2B.4.7 Stillstand

1. Stillstand is a competition in which the rider attempts to balance as long as possible ~~–The rider cannot hop or turn the tire more than 45 degrees, and must remain~~ on a 25 cm long, 10 cm wide, and 3 cm tall block of wood *without hopping or turning the tire more than 45 degrees. Riders get two attempts.*
2. The competition should take place indoors on a level surface.
3. The only required safety gear is shoes.
4. ~~Each participant has 2 attempts that~~ *The 2 attempts* can be done at any time during the time window set by the host. The host can decide to add to each of the 2 attempts a window up to 20 seconds, in which the ~~competitor~~ *rider* can start the number of tries needed.
5. The starting post is placed anywhere the ~~participant~~ *rider* prefers. Time starts running when the ~~competitor~~ *rider* lets go of the starting post. After time starts running, the starting post will be taken away. Time stops at the moment when the ~~participant~~ *rider* rides off the board, dismounts, starts hopping or turns the tire more than 45 degrees.
6. There are no finals for the Stillstand competition. The overall results will be determined by the best results for males and females respectively.

2C Judges and Officials Rules

2C.1 ~~Racing~~Track Officials

2C.1.1 *Track Director*

1. The Track Director is the head organizer and administrator of track events. The Track Director is the highest authority on everything to do with the track events, except for decisions on rules and results.
2. The Track Director is responsible for the logistics and equipment for all track events.
3. With the Referee, the Track Director is in charge of keeping events running on schedule, and answers all questions not pertaining to rules and judging.

2C.1.2 *Referee*

1. The Referee is the head track official. *The Referee is responsible for making sure that the competition rules are observed and for deciding on all related questions that arise during the event. This applies in particular to the handling of protests, as well as to questions of interpretation of the rules.*, ~~whose primary job is to make sure the competitors follow the rules. The Referee makes all final decisions regarding rule infractions.~~
2. ~~The Referee has final say on whether a rider's safety equipment is sufficient.~~
3. ~~The Referee is responsible for resolving protests.~~
4. ~~The Referee makes sure other track officials are trained and ready.~~
2. *The Referee has full control and authority over all judges and must instruct them on all details and regulations related to the competition.*
3. *The Referee must ensure that all necessary judges are on their assigned places. The Referee may replace absent, incapacitated or inadequate judges with others and may appoint additional judges. The Referee must ensure that the judges do not interfere in the competition in a biased manner.*
4. *The Referee can ban persons from the competition venue for the duration of the competition, if they significantly disturb the execution of the competition.*

5. *The Referee has the exclusive right to disqualify riders in case of violations of the competition rules, with the exception of violations concerning the start (2B.7.1). Violations of the competition rules can be determined by their own observations or in reports of the responsible judges. Violations of the competition rules have to be reported to the referee with the following information: Position and name of the judge, competition, heat number, lane number and/or start number of the rider, as well as a clear description of the violation.*

2C.1.3 Starter Responsibilities

1. The Starter starts races and calls riders back in the event of false starts. The Responsibilities follow from the text in 2B.3.1, Starting and 2B.3.1.1, False Starts.
2. If a verbal (spoken) count is used, the time between (the start of) each of these elements must be the same, and should be approximately 1 second. Starters should practice this before the races begin. Timing of the count is very important for an accurate start. This count are to be given in English at Unicon or international competitions. At other competitions, English is optional.
3. The Starter checks riders for correct unicycles and safety equipment and will remove from the starting line-up any riders not properly equipped to race, including riders with dangerously loose shoelaces.
4. *The starter has to take a position for the start from which he has an unobstructed view of the riders and the start command and signal can be easily perceived by the riders.*
5. ~~The Starter explains race rules.~~

2C.1.4 Timekeeper

1. *The Timekeeper must be responsible for the conformity to the rules and the functioning of the timing system.*
2. *If a fully automatic timing and photo finish system is used, before the start of an event the Timekeeper must perform a zero control test to ensure that the system is started automatically by the starter's signal within the limit identified in rule 2D.9 (i.e. equal to or less than 0.001 second).*
3. *The Timekeeper supervises the timing system and if a fully automatic timing and photo finish system is used, makes sure that the camera is correctly aligned.*
4. *The Timekeeper (in conjunction with an adequate number of assistants) must determine the official times of the riders. The timekeeper must ensure that these results are correctly entered in or transferred to the competition results system.*

2C.1.5 Finish Line Judge Responsibilities

1. The Finish Line Judge determines whether riders cross the finish line properly, according to the rules.
2. *In all races in which remounting after a dismount is allowed, one or more officials Finish Line Judges are required at the finish line to judge dismounts* ~~in all races where dismounting is allowed. These officials must be appointed by the racing referee so they fully understand their crucial job.~~ The Finish Line Judges are the voice of authority on whether riders must remount and cross the finish line again. Any riders affected must be clearly and immediately signaled to return to a spot before the finish line, remount without overlapping the finish line, then ride across it again. The path for backing up must *be made clear by the Finish Line Judge and* may involve going around any finish line timing or optical equipment to prevent data problems for other riders in the race.
3. *The Finish Line Judge can be assigned the task by the referee to document the running-in order. At least two Finish Line Judges should be assigned for this purpose if necessary.*
4. ~~When a rider dismounts while crossing the finish line and has to back up, remount and cross the finish properly, it may happen that the first (illegal) finish is timed, and that this prevents the timing system from recording the time of the actual (proper) finish. (This may happen with a light beam finish timing system, or one based on chip timing. It will usually not happen with a modern slit camera system.)~~

~~If possible, the proper finish time must be reconstructed or estimated from whatever data is available, such as legitimate finish times of other riders in relation to the rider in question, video, photographs, or a “manual” reading from a running time display.~~

~~If it is in no way possible to assess an actual finish time, the riders time will be recorded as 0.01 seconds faster than the next rider to cross the line after their remount and crossing. In this way, the heat finish order is preserved. If the rider in question is the last one on the track, the time recorded should be the best possible estimate of their actual time crossing the finish line after their remount.~~

2C.1.6 Lane Judge

1. *The Lane Judge observes the adherence to the corresponding competition rules during the race. Sufficient number of Lane Judges are to be appointed according to the discipline to guarantee a complete supervision of the adherence to all rules on all lanes.*
2. *The Lane Judge observes at lane-bound races in particular that no rider leaves his lane and at non-lane-bound races that the riders respect the rules for overtaking and the minimum distances.*
3. *The Lane Judge observes in the one-foot race whether the riders take a foot off a pedal in time at the 5 m line. A Lane Judge should supervise a maximum of two lanes without technical aids.*

4. *The Lane Judge observes during the relay that the takeover of the baton is carried out according to the rules.*

2C.1.7 Technical Disciplin Judge

1. *The Technical Discipline Judge supervises the adherence to the corresponding competition rules in the Technical Disciplines according to 2B.8 and the corresponding subchapters.*
2. *The Technical Discipline Judge must score and record all attempts of the athletes in the Technical Disciplines. There must be at least two Technical Discipline Judges for each competition of a Technical Discipline at Unicon and other international competitions, and it is strongly recommended that this is also applied to all other competitions.*

2C.2 Training Officials

1. As the rules state, competitions cannot be started until all key track officials have been trained and understand their tasks. For **Raeing** *all Track disciplines, as written in 2C.1.2 4*, the Referee is in charge of making sure this happens.

2D Event Organizer Rules

2D.1 Venue

1. *All Track Racing Disciplines, as well as Track Coasting and Track Gliding, must be held on a standard athletics competition track. Exceptions are the 50m One Foot and the 30m Wheel Walk, which can also be held at an indoor athletics venue. The IUF Slalom must be held on a surface that has the same characteristics as a standard athletics competition track and therefore complies with paragraph 2.1. If the requirements cannot be fulfilled, the disciplines cannot be offered as official IUF Track Disciplines and this has to be announced accordingly before the competition. ~~A track must be made available for conducting the track races. In addition to the track, a smooth area of sufficient size must be set aside to run the IUF Slalom.~~*

Note: If the track is outdoors, plans must be made to deal with inclement weather. Using an indoor track can eliminate this problem. The track must be available for enough days to allow for inclement weather.

2. *Every track and field competition venue for athletics approved by a national athletics organization or higher is approved for official unicycle competitions. The essential criteria that such a venue must comply with are the following:*
 - 2.1 *Any firm, uniform surface that complies with the specifications for synthetic surfaces for athletic competition venues is permitted.*
 - 2.2 *The nominal length of a standard competition track is 400 m, it must be not shorter than 400.00 m and not longer than 400.04 m. It must consist of two parallel straights and two bends whose radii must be equal. The inside of the track must be bordered by a kerb of suitable material that should be coloured white, with a height of 50 mm to 65 mm and a width of 50 mm to 250 mm. The kerb on the two straights may be omitted and a white line 50 mm wide substituted.*
 - 2.3 *The measurement must be taken 0.30 m outward from the kerb or, where no kerb exists on a bend, 0.20 m from the line marking the inside of the track.*
 - 2.4 *The distance of the race must be measured from the edge of the start line farther from the finish to the edge of the finish line nearer to the start.*
 - 2.5 *In all races up to and including 400 m, each rider must have a separate lane, with a width of $1.22\text{ m} \pm 0.01\text{ m}$, including the lane line on the right, marked by white lines 50 mm in width. All lanes must be of the same nominal width. The inner lane must be measured as stated in paragraph 2.3, but the remaining lanes must be measured 0.20 m from the outer edges of the lines.*

3. The track must ~~be marked in meters, and should~~ be prepared ~~in advance~~ with start and finish lines for the various racing events that are unique to unicycle racing (such as 50, 30, 10 and 5 meter lines).
4. *For races that include at least one turn, the inside lane must be on the left in the direction of the race. The individual lanes must be numbered, starting with the left-hand lane as No. 1.*
5. A public address system must be provided to announce upcoming events and race winners. Bullhorns are usually not adequate for the track environment.

2D.2 Officials *and Judges*

1. The host must designate the following officials for *all* track ~~events~~*racing*:
 - Track Director
 - Referee
 - 1.1 *For races the following additional officials and judges must be designated:*
 - Starter
 - *Timekeeper*
 - Finish Line Judge
 - *Lane Judge*
 - 1.2 *For technical disciplines the following additional judges must be designated:*
 - *Technical Disciplin Judge*

2D.3 Communication

1. If a ~~large~~ convention *host* advertises events *for disciplines* with the names of the ones detailed in this chapter, they must use the rules provided here. If hosts desire to do variations on these rules, *for example by offering other unicycle classes or wheel sizes*, the events must be labeled accordingly, *i.e. "100m Unlimited" or ~~Example:~~ "Track Coasting; Modified"*. *The host can also offer events for additional disciplines. In both cases, the events for modified disciplines and the additional disciplines, they cannot be considered official IUF disciplines.* In cases such as this, hosts must remember to provide detailed rules for these events at the same time the events are announced.
Note: Examples of modified discipline events would be Unlimited races, where races can be run on unicycles without any restrictions. An example of another wheel size category would be the 700c wheel category, where unicycle wheels must be greater than 618mm in diameter, have a maximum bead seat diameter (BSD) of 622 mm, and there are no restrictions on crank length.

2. A Host is allowed to make helmets and/or ~~knee pads~~*other safety equipment* mandatory for ~~track races~~*the competition or individual disciplines* but it must be announced when registration is opened and must appear as an extra point to check ~~for each discipline~~*when* the competitor registers ~~for~~.

2D.4 Track Combined Competition

The best finishers combined from the 6 racing events listed above will win this title. Points are assigned for placement in each of the above races, based upon best times in the final heats. In smaller events, the finishing age group times in the IUF Slalom can be used if no additional final is run. 1st place gets 8, 2nd place 5, 3rd place 3, 4th place 2, and 5th place 1. Highest total points score is the World Champion; one each for male and female. If there is a tie, the rider with the most first places wins. If this still results in a tie, the title goes to the better finisher in the 100m race. Points are not earned in age group heats.

2D.5 Race Configuration

Racing competition is held in two separate divisions: Male and Female.

There will be no mixing of age groups, or males and females, in heats except with permission from the Racing Referee.

Track events must have both a preliminary and final round.

2D.6 Heat and Lane Assignments

The following heat and lane assignments must be used for Unicon and international competitions. Also for other competitions it is recommended to do the assignments accordingly. The rule is applied for each age group independently.

1. The riders with the fastest seed times will be placed in the last heat, the next riders in the second last heat, etc. until all riders are distributed over the heats.
2. In age group races the distribution is done according to the seed times. Riders for whom no seed times are given will be placed without time behind the rider with the slowest seed time. The order in which riders with the same time are seeded will be decided by lot.
3. In final races the distribution is done according to the times achieved in the age group races. The order in which riders with the same time will be seeded ~~shall~~*must* be decided by lot.
4. The lane assignment in lane-bound races is carried out according to the subsection below.
5. In each heat at least three riders should be seated if possible; however, this number can be undercut due to cancellations.

2D.6.1 Lane assignments in lane-bound races

1. In races up to and including 100m the lanes are to be distributed as follows in each heat:
 - If the number of lanes is odd, the rider with the fastest seed time in the race will be placed on the middle lane. The rider with the next fastest seed time will be placed on the lane to the right of the middle lane (number of the middle lane +1) and all other riders will be placed alternately to the left and right of the middle lane according to their seed times.
 - If the number of lanes is even, the rider with the fastest seed time will be placed on the lane with a number value of half the total number of lanes. The rider with the next fastest seed time will be placed to the right of this lane (half lane number +1) and all other riders will be placed alternately to the left and right according to their seed times.
2. In races from 200m the lanes are to be distributed as follows in each heat:
 - The rider with the fastest seed time in the race will be placed on lane 1, the rider with the next fastest seed time will be placed on lane 2 and all other riders will be placed one lane higher according to their seed times.
3. If a lane cannot be used, due to poor quality or other reasons, skip it and proceed as described above.

Example for the seeding of a 8-lane track *from fastest to slowest seed time*:

100m and shorter: fastest time in lane 4, then lane 5,3,6,2,7,1,8

200m and longer: fastest time in lane 1, then lane 2,3,4,5,6,7,8

2D.7 Optional Race-End Cut-Off Time

It may be necessary to have a maximum time limit for long races, to keep events on schedule. When this is planned in advance, it must be advertised as early as possible, so attending riders will know of the limit. Additionally, at the discretion of the Racing Director, a race cut-off time may be set on the day of or during an event. The purpose of this is to allow things to move on if all but a few slow racers are still on the course. These cut-offs need not be announced in advance. At the cut-off time, any racers who have not finished will be listed as incomplete (no time recorded, or same cut-off time recorded for all). Optionally, if there is no more than one person on the course per age category and awards are at stake, they can be given the following place in the finishing order. But if each participating age category has had finishers for all available awards (no awards at stake), there is no need to wait.

2D.8 Timing, Photo Finish and False Start Monitoring

1. A Fully Automatic Timing and Photo Finish System must be used for the track races at Unicon and is strongly recommended for track races at all other competitions. The system must have been tested, and have a certificate of accuracy issued within 4 years of the competition, including the following:
 - 1.1 The System must record the finish through a camera positioned in the extension of the finish line, producing a composite photo finish image of at least 100 images per second, ideally 1000 images per second. The image must be synchronized with a uniformly marked time-scale graduated in 0.01 seconds.
 - 1.2 The System **shall** *must* be started automatically by the Starters signal, so that the overall delay between the start signal and the start of the timing system is constant and equal to or less than 0.001 second.

Note: A system that works not automatically at start and finish will not produce fully automatically measured times and therefore does not comply with this requirements.

2. *The placing and times of the riders must be read from the Photo Finish image by means of a cursor with its reading line guaranteed to be perpendicular to the time scale.*

Note: In order to confirm that the camera is correctly aligned and to facilitate the reading of the Photo Finish image, the intersection of the lane lines and the finish line must be coloured black in a suitable design. Any such design must be solely confined to the intersection, for no more than 20 mm beyond, and not extended before, the leading edge of the finish line. Similar black marks may be placed on each side of the intersection of an appropriate lane line and the finish line to further facilitate reading.

3. *The system must automatically determine and record the riders finish times and must be able to produce a printed image (in physical form or into a file) showing the time of each rider. Additionally, the system must provide a tabular overview showing the time or other result for each rider. Subsequent changes of automatically determined values and manual input of values (like start time, finish time), must be indicated by the system automatically in the time scale of the printed image and the tabular overview.*
4. For the track races at Unicon a false start monitoring system, which is able to reliably detect a crossing of the start line before the start signal, must be used and is strongly recommended for track races at all other competitions.

2D.9 Accuracy of Results

For all Gliding and Coasting disciplines where the distance is measured, unless the distance is an exact 0.1 meter, the distance **shall** *must* be converted and recorded to the next shorter 0.1 meter, e.g. 34.56 m **shall** *must* be recorded as 34.5 m. When two riders reach the same distance, it **shall** *must* be determined to be a tie and the tie **shall** *must* remain and gets published as such.

For all Slow disciplines and Stillstand, unless the time is an exact 0.1 second, the time *shall must* be converted and recorded to the next shorter 0.1 second. When two riders reach the same time, it *shall must* be determined to be a tie and the tie *shall must* remain and gets published as such.

For all other track racing events mentioned in this chapter, unless the time is an exact 0.01 second, the time *shall must* be converted and recorded to the next longer 0.01 second, e.g. 14.533 seconds *shall must* be recorded as 14.54 seconds. In the event that there is a tie where an award and/or a place in the final is at stake, if a photo finish system was used, the image of this system *shall must* be used to decide on the placings. In this case, the note (Photo Finish: +0.00X) is printed on the results list next to the official time. In other cases it *shall must* be determined to be a tie and the tie *shall must* remain and gets published as such.

Example: If two riders have reached a time of 0:07.08 and the image of the photo finish system shows a difference of 0.006 seconds, the following will be printed on the result list:

1st Place	Rider 1	0:07.08
2nd Place	Rider 2	0:07.08 (Photo finish: +0.006)

2D.10 Wind Measurement

It is recommended to measure the wind speed for 100 m, 200 m, One Foot, Wheel Walk, Track Coasting and Track Gliding since tailwind can have a significant influence when the track is not ridden at least once complete. For Unicons such wind speed measurement is required. For World Records to be valid, there may not be a tailwind averaging more than 2 m/s during the period specified below. The following rules apply to wind measurement:

- 1. All wind gauge equipment must be IUF approved and manufactured and calibrated according to international standards. The accuracy of the measuring equipment used in the competition must have been verified by an appropriate organisation accredited by the national measurement authority.*

***Note:** All WordAthletics certified devices are approved.*

- 2. Non-mechanical wind gauges must be used.*
- 3. The wind gauge should preferably be started and stopped automatically and remotely, and the information conveyed directly to the competition computer. A manual start and stop should only be performed if there is no other possibility. In any case, the responsible judge needs a separate instruction for the correct operation of the wind gauge.*
- 4. The wind gauge must be read in meters per second, rounded to the next higher tenths of a meter per second, unless the second decimal is zero, in the positive direction. Gauges that produce digital readings expressed in tenths of meters per second must be constructed so as to comply with this rule.*

***Explanation:** This means that a reading of +2.03 m/s must be recorded as +2.1 m/s; a reading of -2.03 m/s must be recorded as -2.0 m/s.*

5. *The wind gauge is placed beside the straight, adjacent to lane 1 and 50 m from the finish line (200 m and 100 m) respectively 25 m from the finish line (One Foot and Wheel Walk). During the Track Coasting the wind gauge is placed beside the straight, adjacent to lane 1 and 50 m from the starting line. In all cases the measuring plane must be positioned at 1.22 m ± 0.05 m height and not more than 2 m away from the track. .*
6. *The period for which the wind velocity must be measured from the start signal are as follows:*
- 100 m 14 seconds,*
 - One Foot. 8 seconds,*
 - Wheel Walk 8 seconds.*
- For a 200 m race, the wind velocity must normally be measured for a period of 14 seconds commencing when the first athlete enters the straight. The measuring can also be started automatically after 12 seconds from the start signal.*
- For Track Coasting the wind velocity must be measured for a period of 15 seconds from the time when the athlete passes the start line.*

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