



# Darts4Blind

**Erasmus+ : Sport Small  
Collaborative Partnerships**



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## INTRODUCTION

Ülkemizdeki engelli bireylerin genel nüfusa oranı dikkate alındığında Engelliler İdaresi Başkanlığınca yapılan araştırmaya göre, Türkiye nüfusunun yüzde 12,29'unu engelliler oluşturuyor. Bu veriden de yola çıkarak engelli bireyler için çok çalışmamız gerektiği daha iyi anlaşılmaktadır. Ayrıca her bir bireyin bir engelli adayı olduğu hesaba katıldığında bu çalışmalar daha fazla önem arz etmektedir

Onların hayatlarını kolaylaştırmak için yaşam alanlarının onlar için uygun hale getirilmesi, toplumsal yaşam alanlarında yürüme bantlarının oluşturulması sesli trafik ışıklarının yaygınlaştırılması alışveriş merkezlerinin okulların resmi kurumların engellilere göre uyumlu hale getirilmesi ve toplumsal bilinç oluşturulması önem arz etmektedir.

Bu çalışmaların yanı sıra beden eğitimi ve sporsal faaliyetlerle onların hayata bağlandıklarını, yaşama sevinçlerinin arttığı tartışılmaz bir gerçektir.

Bu proje çalışması ile görme engelli bireylerin hayattan zevk alma, başarı duygusunu hissetme, kendi yeteneklerini keşfetme gibi psikososyal değerlerin yanı sıra sosyal birey olma duygusunu yakalayabilmelerine katkıda bulunulması hedeflenmektedir.

Bu amaç doğrultusunda Kahramanmaraş ili Ertuğrul Gazi Görme Engelliler Ortaokulu ve Gaziantep ili G.A. P Görme engelliler Ortaokulunda toplamda 32 öğrenci ile yardımcı araç kullanarak 8 haftalık dart eğitimi verilmiştir.

## BACKGROUND



İlk iki çalışma saatlerinde dart sporunun dünyada ve ülkemizde tarihsel gelişimi, oyun kuralları, malzemeler hakkında bilgiler verilmiştir.

Dart tahtası üzerindeki puanlama alanları tek tek öğrencilere elleriyle dokunarak gösterilmiştir.



Dart oklarını nasıl tutacakları dart oklarını atarken kol, el ve vücut pozisyonlarının nasıl olması gerektiği öğretilerek çokça tekrar yaptırılmıştır.

Yaptıkları pozisyon yanlışlıkları anında dönüt verilerek düzeltilmiştir.



Atış çizgisi ile dart tahtası arasındaki yürüme bandı sayesinde dart tahtasına ulaşmaları ve tekrar atış noktasına dönmeleri denemeler yaptırılarak pratiklik kazandırılmıştır.



Her atıştan sonra yürüme bantlarını kullanarak dart tahtasına gitmeleri ve dokunarak puanlama işaretlerini hesaplamaları ve tekrar yürüme bandını kullanarak dart oku ile beraber atış noktasına gelmeleri istenmiştir.



Çalışma boyunca öğrencilerin yaptığı çalışmalardan büyük bir haz aldığı, yapılan çalışmalarla her öğrencinin gelişim gösterdiği ama gelişim seviyelerinin farklı olduğu gözlemlenmiştir.



Öğrenciler ilk çalışmalarda dart tahtasına yardımcı araçla veya araçsız yaptığı atışların hedefe bir veya iki isabetle gerçekleştiği tespit edilmiştir.



Dart sporunun yardımcı araç eşliğinde görme engellilere uyarlanarak görme engellilerin rahatlıkla kimseye ihtiyaç duymadan yapabilecekleri bir spor dalı olduğu bu çalışmayla ortaya konulmuştur.

Ayrıca iletişim ve paylaşım sağlamakta eğlendirmekte, düşündürmekte, stresten korunmasına ve stresle başa çıkmasına yardımcı olmaktadır. Dikkat ve konsantrasyon süresini uzatmakta zihinsel matematik işlemleri hızlandırmakta kas gelişimini desteklemekte sabır etmeyi öğretmekte vücut koordinasyonunu geliştirmektedir. Bir spor dalı olarak görme engellilerin kimseye ihtiyaç duymadan yapabilecekleri çok uygun bir spor dalı olduğu

gözlemlenmiştir. Engelli bireylerin sağlam bireylerle bir araya gelerek toplumsal entegrasyon içinde son derece önemli bir işlevi de yerine getirmektedir.

Spor etkinliklerine katılarak kendini önemseme duygusunun yeniden kazanmasına olumlu davranışlar sergilemesine sosyal hayata entegrasyonuna yardımcı olacağı düşünülmektedir. Öğrencilerin dart sporunu yapmalarını sağlamak bu spor ile uğraşan görme engellilere engeli ile başa çıkmasını öğretmekte, kendine olan güven duygusuna ve olumlu benlik gelişimine nedene katkıda bulunmaktadır.

Ayrıca iletişim ve paylaşım sağlamakta eğlendirmekte, düşündürmekte, stresten korunmasına ve stresle başa çıkmasına yardımcı olmaktadır. Dikkat ve konsantrasyon süresini uzatmakta zihinsel matematik işlemleri hızlandırmakta kas gelişimini desteklemekte sabır etmeyi öğretmekte vücut koordinasyonunu geliştirmektedir. Bir spor dalı olarak görme engellilerin kimseye ihtiyaç duymadan yapabilecekleri çok uygun bir spor dalı olduğu gözlemlenmiştir. Engelli bireylerin sağlam bireylerle bir araya gelerek toplumsal entegrasyon içinde son derece önemli bir işlevi de yerine getirmektedir.

Dart sporunda kısa süre içinde karar verebilmek, bu kararı nasıl uygulayacağını planlamak, planlanan atış yapılamaz ise hem yaşanan yoğun moral bozukluğu ile baş edebilmek hem de bir sonraki atışın nasıl yapılacağını düşünmek gibi yoğun zihinsel faaliyetler önemli bir yer tutuyor. Bu yönüyle Dart sporu satranç sporuna benzetiliyor ve “Ayakta Satranç Oynamak” olarak da tarif ediliyor

Matematiksel zekanın gelişimine olağanüstü katkı sağlayan dart, başta Almanya olmak üzere Avrupa’da bazı ülkelerde birçok ilköğretim okulunda destek dersi olarak uygulanmaktadır.

Yardımcı araçla yapılan dart sporu görme engellilerin zihinsel yorgunluklarını atmak; günlük iş, okul, ev stresinden uzaklaşabilmek; yoğun zihinsel faaliyetlerden sonra dinlenebilmek için etkili bir araçtır.





## BASIC STANCE TECHNIQUE

Posture teaching and training is often neglected in darts. However, if we really want to achieve success in this sport, we must be able to do the basic stance very well. If we explain the basic stance simply.

-Whichever hand is holding the arrow, the foot of the same side should be placed at shoulder width so that it is zeroed on the shooting line. (For example: A right-handed dart player has his right foot in front.)

-The forward foot is generally placed by turning it sideways (closer to the firing line) at an angle of 45 degrees (the right foot is turned to the left).

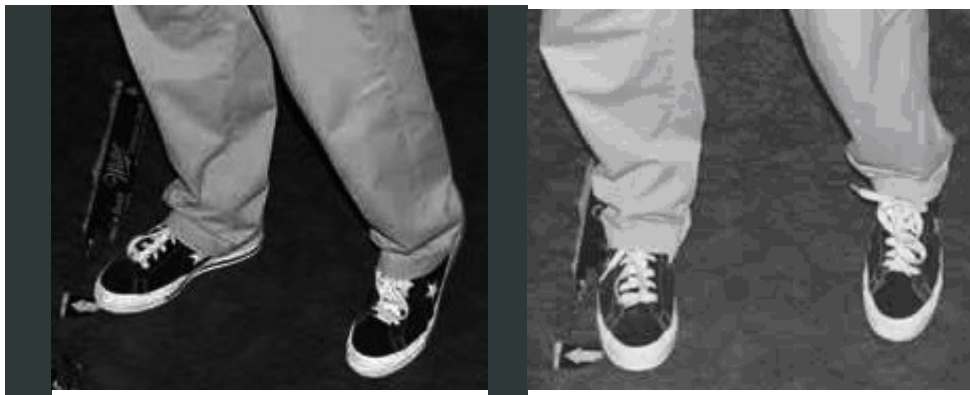
-One of the important issues in the basic stance is to aim at the center of the dart board (Bull eye) before shooting, and to bring our feet to the shooting line and take our position against it.

- Generally, this position is taken when an imaginary line from the middle of the board comes up to the dart player and places his foot and body in such a way that it divides his body in half.

-If we explain this targeting; The dartist who will shoot must first draw this line in his mind from the shooting line to the bull eye, that is, to the center of the board. This requires mental competence. Plenty of reps automate this workout.

-After drawing this line, he should adjust his position according to the point where he will shoot. This mental point is pre-marked and made a habit by the trainer for the beginner's convenience.

-Placement studies at this point ensure that the darter maintains an accurate and consistent stance. -The important saying is: Standing in the wrong place causes misalignment. This greatly reduces the success of the shot.



### **Posture of the Feet on the shooting line**

There are 2 main options in this regard.

1- To lean the left or right hand of the shooting hand, tangentially parallel to the shooting line, by turning it at an angle of 90 degrees to the side.

Meanwhile, the other back stabilizer takes its position in such a way that the heel is off the ground and tilts the body forward so that it remains in balance. This foot in the back is slightly outward without being in line with the foot in front.

2- Turning the foot of the shooting hand at an angle of 45 degrees tangentially to the shooting line and resting the tip of the foot. The toe usually targets the bull eye (central). Meanwhile, the other back stabilizer takes its position in such a way that the heel is off the ground and tilts the body forward so that it remains in balance. This foot in the back is slightly outward without being in line with the foot in front.

## Body Posture at the shooting line



- The body must remain stationary at all times during the shot.
- During the shooting, after drawing the imaginary line and taking the position, the elbow is raised so that the arm forms an angle of 90 degrees with the body.  
This arm, which is raised up, is bent upwards at an angle of 90 degrees from the elbow.
- Meanwhile, the eye is locked on the target so that it can see the tip of the arrow.
- Often our head is tilted slightly to the side to be able to set this target.
- When starting the throw, the elbow is pulled back to the body.
- The hand is lowered back from the wrist at an angle of 60-90 degrees.

## Stance Basics (Posture Stance Basics)

In the stance, the back foot mostly bears the weight of the body.

Feet are usually shoulder-width apart.

It forms the basis of the posture by reducing the fatigue of the front foot.

- The back foot always maintains balance.
- Leaning forward too much disrupts the balance, causing the shooting arm to move quickly with the body and causing the shot to deteriorate.

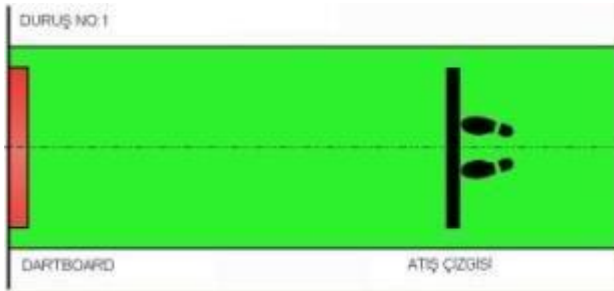


## Shoulder Position in Posture

- Shoulders should be parallel to the floor.
- According to the differences of the players, the shooting shoulder can vary between 50-90 degrees to the body.
- Shoulders and body should always remain stationary during shooting.
- The spine and shoulders should be kept stable so that the shooting arm can relax and not lose control.
- While throwing the arrow with the movement of the lower arm part of the arm, the shoulder should not be moving and should be fixed. So shooting with the shoulder is absolutely wrong. Beginner athletes should definitely be taught this.

## Stance No: 1

- This stance type is used by very few darts.
- It is very difficult to maintain body balance.
- It is getting harder to aim at the target.



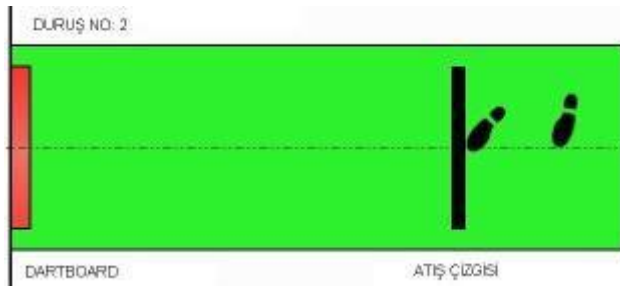
### Stance No: 2

-Right-handed shooters stand like this.

It is a posture stance in which the body balance is provided very well.

This stance has been adopted by the great majority.

-Toe tip is used for targeting.

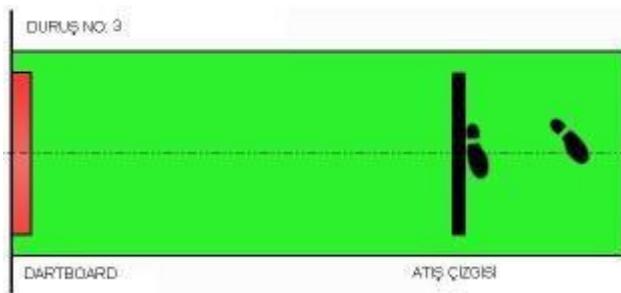


### Stance No: 3

-This posture stance is useful in preventing unwanted movements of the body.

- Due to the position of the foot, it can cause contractions and fatigue in the foot muscles.

It's a stance used by good players.



### Important Points About Posture Stance

- If the body swings back and forth each time during the shot, your muscles are holding the body against gravity. This causes the shooting to be distorted.

A good shot depends on a well-balanced stance. Raising the heel of the other foot behind the body during the throw will sometimes disrupt the balance. (Back and leg contractions)

- If we are going to shoot at points at different distances on the board, instead of shifting our stance and disrupting the stance, it will be much more accurate if we lean back a little and then turn our wrist (down-up/right-left) to that point.

### Important Note:

During the shooting, following the exit of the arrow, the thumb should point to the target as well as the index finger. This will help us take the arrow into the fingers and direct it to the target.

## Standing Posture

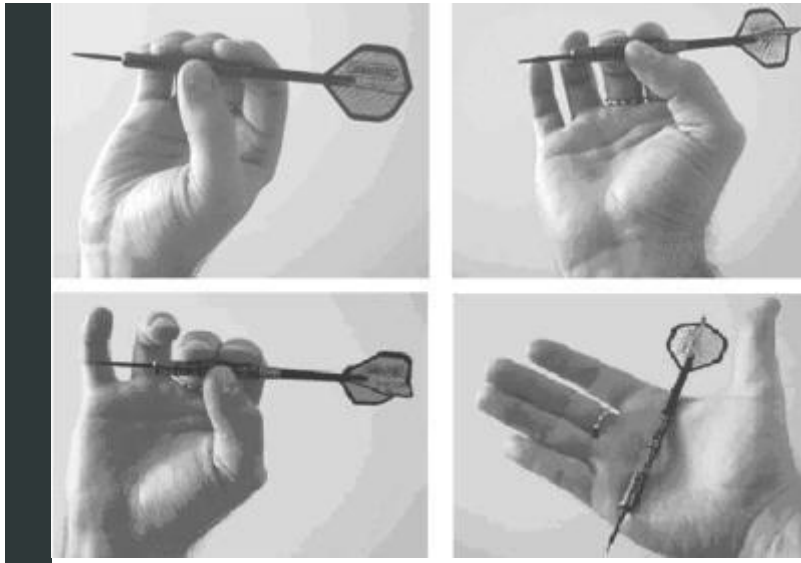
People often neglect about the standing posture but it is the first thing that is going to set the base of your winning chance. Always draw an imaginary line from the bull's eye of the dart towards your line of throwing. Mark it over there with a color. Make sure that you always start throwing your dart from that position only.

Stand with such a posture that there will be a shoulder's apart distance between your two feet. The front foot should bear more weight of your body than the back foot. This improves balance and accuracy but too much leaning forward may cause back injuries. So, the player is always advised to find his perfect balance spot by rigorous practice.



The position of your arm should be parallel to the ground. Sometimes it varies between 50-90 degrees varying from person to person but the shoulders should stay fixed with respect to other parts of the body.

## DART HOLDING TECHNIQUE



### Dart Holding

- First of all, the explanations made as this right grip, that wrong grip are wrong.
- Depending on the grip body type of the arrow used, the grip shapes may change.
- The position of the fingers in the grip is also very important. Accordingly, many players have different arrow grips.
- Always the tip of the arrow is slightly angled upwards with respect to the target of the board to be shot.
- Before the arrow is thrown, the point to be shot on the side must be marked with an imaginary eye.





-The arrow should always be aimed a little above the target point to be shot, taking into account the concept of distance.

-We have to make sure we don't hold the arrow too loosely or too tightly.

-We should be in great touch and comfort while holding the arrow. (For example: Holding the potato chips with two fingers without breaking them) -Fingers should not be close to the palm while holding the arrow. While holding the fingers on the body of the arrow, we should not hold them too close together and tightly. Because this can cause the hand muscles to contract.

- Holding the pointed end of the arrow with the ring or little finger is very useful for targeting. It keeps the arrow in balance.

-In order to determine the location of the arrow on the body to be held with the fingers, it is necessary to use the index finger as the middle point of the scale. That is, the body of the arrow is placed on the index finger. If the arrow stops without falling on any side, this point will be caught and held with the thumb and forefinger. After that, the other fingers take their place on the arrow according to the grip of the dart player.

- In arrow holding, the dartist can establish a consistent and perfect grip in a few weeks with patience. However, this may change over time by working and playing matches.

-The differences and weights of the parts of the arrow also play an important role in the success of the technique and shooting.

-The right and wrong of the grip can be understood with the success graph of the dart player and his long-term training.

-We don't need to find a precise release point when shooting.

-Beginners should not be forced into the lowering movement, which we call bending the wrist forward. Because professionals use this movement for the purpose of accelerating the arrow. However, applying this movement and



making successful shots at the target requires a certain experience and time. However, for beginners, this movement causes the arm to be pushed forward unevenly for this reason, the shots can be thrown left and right.

### **Important Points About Holding the Arrow**

- If you hold the arrow too tightly, you will cause the arrow to come out too late.
- This causes the arrow to go down.
- If you hold the arrow too loosely, you will cause the arrow to fall out of hand prematurely.
- This causes the arrow to go up.
- If you do not release the arrow from the fingers at the same time, if you release the thumb first, you will cause the arrow to rotate and go away.
- If you put your fingers on the dart, you will cause the dart to spin away.

### **Important Note -**

If you want the dart arrows to go without spinning, you must open the fingers holding the arrow at the same time and ensure that the arrow is disposed of.

## **DART GRIP TYPES**

**There are 4 Main Arrow holding styles**

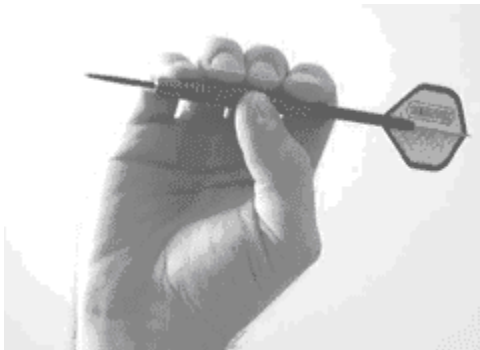
**1-Four Finger Grip**

**2-Three Finger Grip**

**3-Two Finger Grip**

**4-One Finger Grip**

### **Four Finger Grip**



-The thumb, balance and holder fingers are aligned on the arrow, while the other four fingers are the guide fingers.

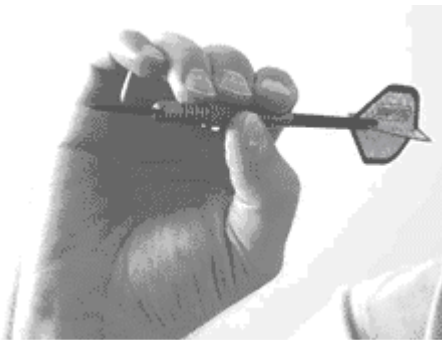
-These fingers should touch the point where they are in a tactile manner.

-The index and little fingers are the fingers that determine the direction of the arrow.

-Middle and ring fingers undertake the task of compression.

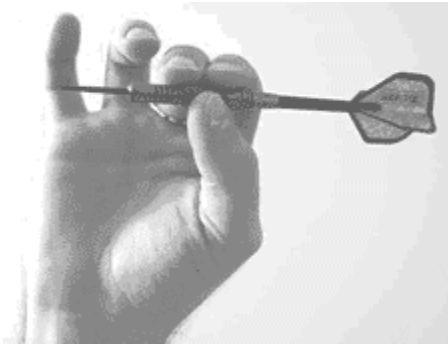
- These four fingers on the arrow must show the same sensitivity. Because the direction and success of the shot depends on it.
- Four-finger grip has a higher percentage of reaching a point above the target in the beginning. Swelling can be seen too much.
- Which of the four fingers will do the compression in this grip, except the thumb, differs according to the athlete. The selection and use of the fingers to balance the arrow is also important.

### Three Finger Grip



- In this grip, three fingers should be placed on the body as if they were one finger.
- The thumb and the third (middle) finger are the dominant fingers that hold and compress the body.
  - The ring and little fingers are kept clear and back from the others.
  - It is an ideal grip for controlled shots.

## Two Finger Grip



Control is compromised with this grip technique.

-Since there are few fingers holding the arrow, risky but effective shots can be made.

It is a grip very similar to holding a pencil. Since holding a pencil is a life-long habit, many players have successful shots in this technique.

-The thumb is placed slightly behind and below the center of gravity.

## One Finger Grip





- The same way of holding a pencil is a holding style.
- It is a grip where the fingers touch the balance point of the arrow the least. Therefore, the loss of control in holding and throwing the arrow is too much.
- If it is desired to shoot with this grip, it must practice many repetitions for success.
- If this grip is successfully established, incredibly successful shots are seen.

## **DART BASIC SHOOTING TECHNIQUE**

### **Important Reminder When Introduction to The Subject:**

\*The most important point in shooting: the arrow drop point. This should never be forgotten. Because accurate shooting at the target is achieved by developing this feature.

### **Basic Shooting Technique**

- A successful shot is the most important element of a dart player.
- Many players do not analyze and criticize the shooting technique.
- It is necessary to watch and imitate many advanced dart players in creating and developing shooting technique.

Important Elements in Developing Shooting Technique Are:

- Alignment
- Fixed(Static)Stop
- Arrow Grip
- Balanced Posture Position



## Alignment

- The first step for a good shot is to aim the shoulder, elbow and forehead at the target to be shot in a straight line.
- The elbow should not be moved to the right and left, even slightly, during shooting.
- The tip of the arrow and the sighting eye should meet on the same plane and be locked on the target.
- All 3 arrows to be thrown should be aimed with the same order, discipline and attention and in the same movement form.



### **Fixed Throw(Stop)**

- An ideal throw is made with a hammer-waving motion of the lower arm from the elbow to the front.
- The elbow, hand and wrist should give the required speed to the arrow, while the shoulder should always remain stationary.
- While the required force is built forward, the elbow rises slightly.
- The elbow should not be thrown down to the ground. (The shot will definitely fail.)



### **Arrow Hold**





- Hand and arrow must be fixed and sighted during shooting.
- The arm should not be moved excessively to the right and left.
- The arm should never be lifted behind the head. (Beginners should also be careful.)
- The arrow should be aimed at the target by holding it with the desired correct and adopted grip.
- While aiming the arrow just before the shot, the tip should be slightly lifted upwards. In the meantime, the wing should be fixed to the chin or cheek.
- While aiming at the target (alignment), in some darts the elbow is 90 degrees to the body (ie under the armpit), while in some this elbow angle is 60 degrees.



### **Balanced Posture**

A well-balanced stance is essential for an accurate and successful shot.

- This stance must be applied without changing it for every arrow shot.



-Although the target to be shot is small, the shooter should not move, as it is not mobile.

## **Dart Throwing Technique Training**

-We must shoot in a way that will try to collect the 3 arrows in the area closest to each other.

-Do not force yourself to target a certain number in this study.

-Always trust your shots. This is about your focus. Never think deeply about your shot.

## **CREATING A DART FIELD**

### **Preparing the Dart Field**

Creating a Dart field consists of these parts:

- 1-Selecting the area
- 2-Hanging the Board
- 3-Creating the shooting line
- 4-Lighting the area

### **Selecting The Dart Field**

-The area to be selected should be at least 3x3 meters in size.

-The area to be selected should not be directly on a hard concrete floor.

-If an area will be created on a hard floor, a carpet or mat should be laid under the board.



-If a carpet is laid on the floor between the board and the shooting line, the shooting distance will naturally be determined.

## **Hanging The Board**

-The height of the board from the ground is 1.73 m up to the red dot (bulle) in the center.

-There is a screw place in the center of the back of the board. The screw provided should be screwed to this place by  $\frac{1}{2}$  cm.

-A 1x1 meter soft-floored panel should be mounted on the wall where the board will be hung. (This can be a tatami mat for convenience.)

-A hanger bracket provided next to the board is mounted to 1.73 meters from the ground.

-The hanging process is terminated by inserting the nail on the back of the board into this hanging apparatus.

<https://youtu.be/G4cFeEEKFQ0>

<https://youtu.be/OUOWSHWIPcM>

## **Creating The Shooting Line**

-To get the exact measurement of the shooting line, this point is reached when we put the tip of the meter on the red point (bullee) in the middle of the board that we mounted at a distance of 1.73 m from the wall and extend it to the ground by 2.93 m. (This measurement is to prevent obstructions caused by wall thicknesses. )



- The shooting line can be created from a wooden, metal or adhesive label (can also be drawn with a writing pen).
- The width of the shooting line is 60-100 cm.

## **Lighting**

- Board should be well lit.
- The best angle is the ceiling mounted 2 lamp shape of the lights.
- These lamps should be at a distance of 4 meters from the side.
- However, this type of lighting causes shadows on the board.
- The lighting should not be in a position to close the sight distance of the shooting dartist.
- The best lighting used today is the clip-on metal bright illuminated lamps.  
(75-100 Watt) is the one mounted on the board



## GENERAL RULES OF DARTS

1. Hang the board as shown in the diagram.
2. To decide who plays first, each player, or one from each side throws one dart, the player hitting nearer the centre starts the game.
3. Players throw three darts each throw.
4. Darts only score that remain on the board on completion of a throw.

### Tournament Dart Rules

#### Basic Rules

In a game of 101 the object is for one player or a team to be the first to reach zero from starting total of 101.

In simple terms, after three darts are thrown, the throwing player subtracts the total scored from his current total until he reaches zero.

1. Each side starts with 101 points. The method of scoring is to subtract each score from the remaining total. The score of 101 is used mainly for games between two individuals.
2. The first to reduce his score exactly to zero is the winner.
3. To finish, score which exactly reduces the score to zero must be thrown.
4. If a greater score is thrown than is required to reduce the remaining score exactly to zero, then none of the three darts count for that throw and the score remains as it was before that particular throw was taken.
5. Each game is called a "leg". 3 legs make a match and the ultimate winner is the player who first wins 2 legs. This can be varied.

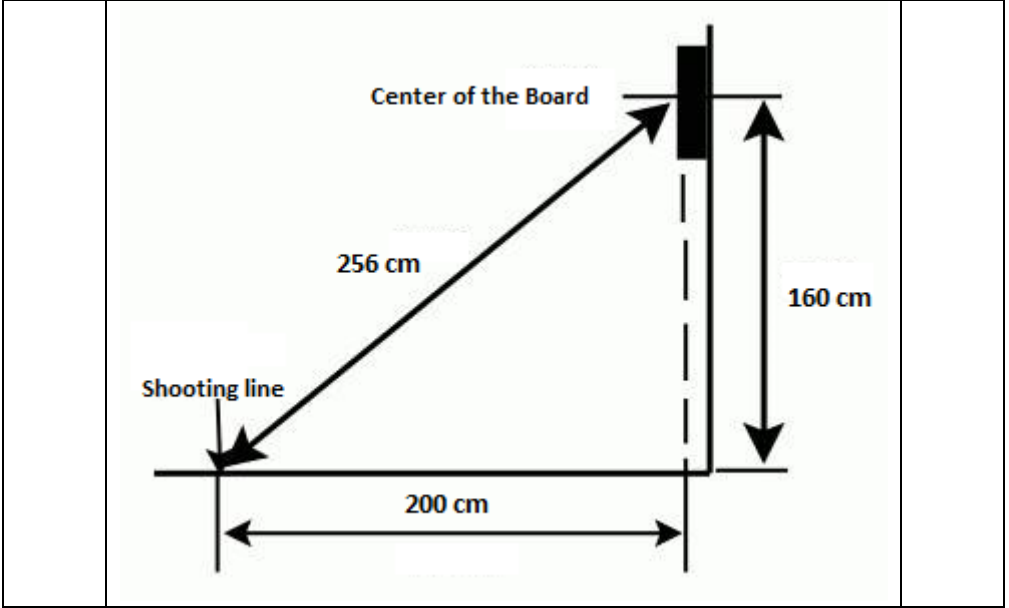


## Game Rules

1. The closest point to the rope is 10 points, the points decrease as each circle approaches the outer circumference of the dart, and the outer circle is 1 point.
2. The height of the dart board from the ground should be 173 cm based on the midpoint of the bullseye.
3. Throwing distance 237 cm. throw distance should be determined by the sensing band. The athlete's foot should not exceed the sensing band. The shot by crossing the sense band is considered invalid.
4. Each player must shoot with his own darts, the darts used are 30.5 cm long and 50 g not more than its weight.
5. Each dart should be thrown one by one.
6. A dart falling off the game board cannot be thrown again.
7. A shot consists of throwing three darts onto the playing board.
8. Before the shot is completed, the dart bouncing or falling off the game board is not included in the scoring.

### Note.

1. A dart dropped from the game board cannot be thrown again.
2. A shot consists of throwing three darts onto the game board.
3. Darts that bounce or fall off the game board before the throw is complete are not included in the scoring.



## Dart Board Setup

### References:

<https://dartokulu.tr.gg/> (Bu dökümanın hazırlanmasında büyük ölçüde bilgilerinden yararlandığımız Sn. Rauf Can DEMİR e teşekkür ederiz)

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