

## Task instructions

An AI system is trained on soccer snapshots to predict the probability of the shooter to score from a given position. Each image describes the position of teammates, defenders, and the shooter with the ball.

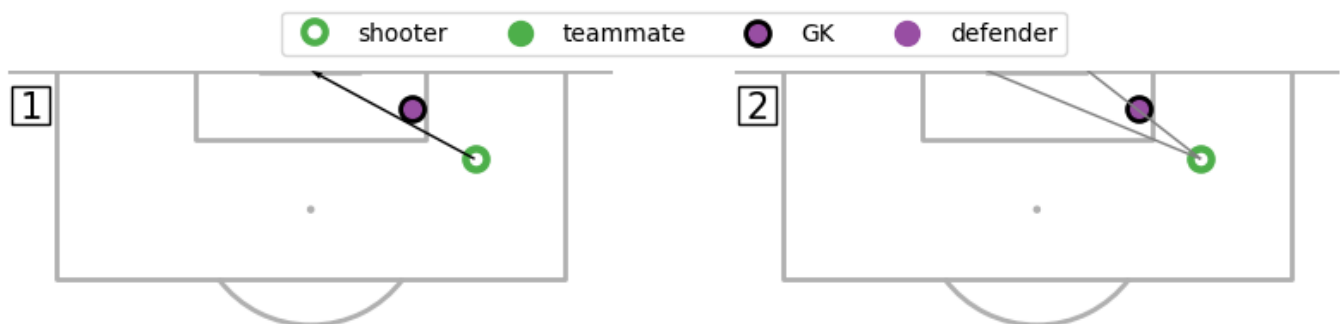
**Only the shot probability from that position is evaluated; how the game unfolds after the shot does not matter for the purpose of the evaluation.**

In real games, the probability of scoring is never 100%: **the grand average scoring probability for a shot is 10%, independently from any factor.**

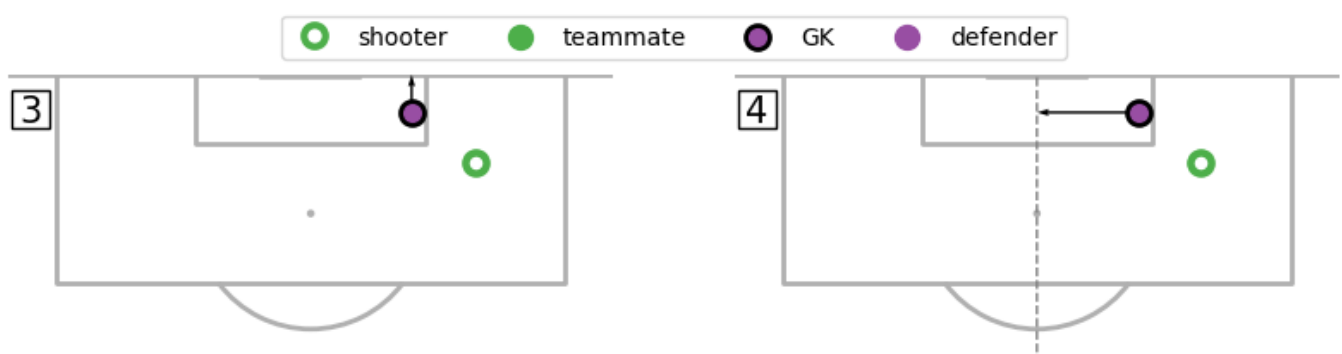
For each shot, we also show an AI-produced “**explanation**” for the prediction itself. The explanation displays which features are more or less relevant for the prediction. Features that favor scoring are indicated as **blue bars**, and features in favor of a miss as **red bars**. Bar length is proportional to contribution strength: the longer the bar, the higher the impact of that feature.

The AI system considers the five following features, independently from one another:

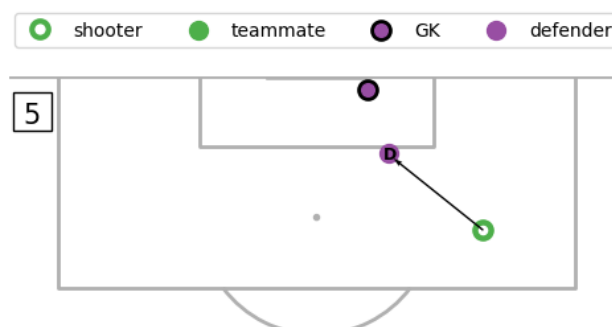
1. **distance to goal:** the distance between the shot location and the opponent's goal.
2. **angle between ball and posts:** the angle between the shot location and the two goal posts.



3. **GK distance to goal line:** the goalkeeper's (GK) distance from the goal line.
4. **GK distance to midline:** the goalkeeper's (GK) distance from the line that runs between the center of the goal and the midpoint of the pitch.



5. **distance to closest defender:** the distance from the closest defender (marked as D in the shot frame).

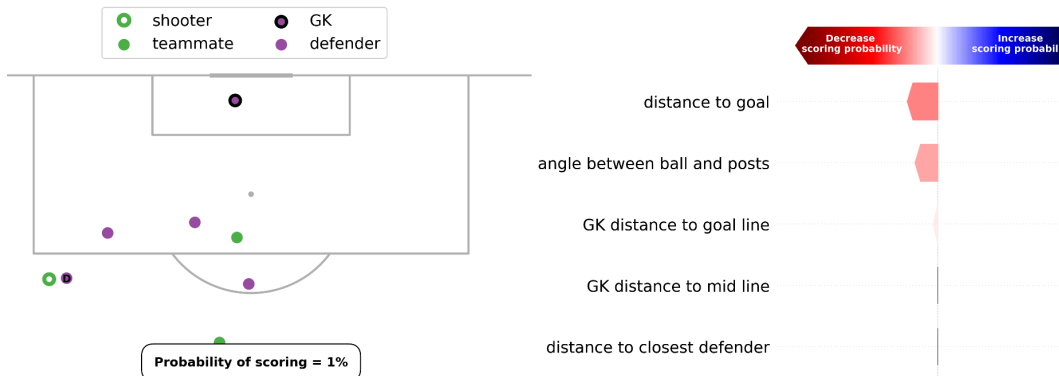


## Examples

Here are three example images. The left part shows a snapshot of the game. The right part shows the explanation; below, you will see the probability predicted by an AI model that the shot results in a goal.

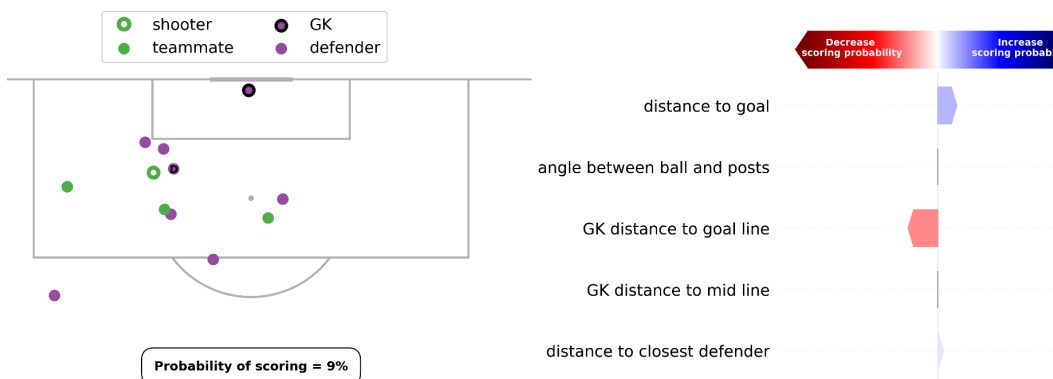
### Example 1

On average, the probability of scoring is 10%, but in this example, the features 'distance to goal' and 'angle between ball and posts' decrease the probability of scoring to 1%.



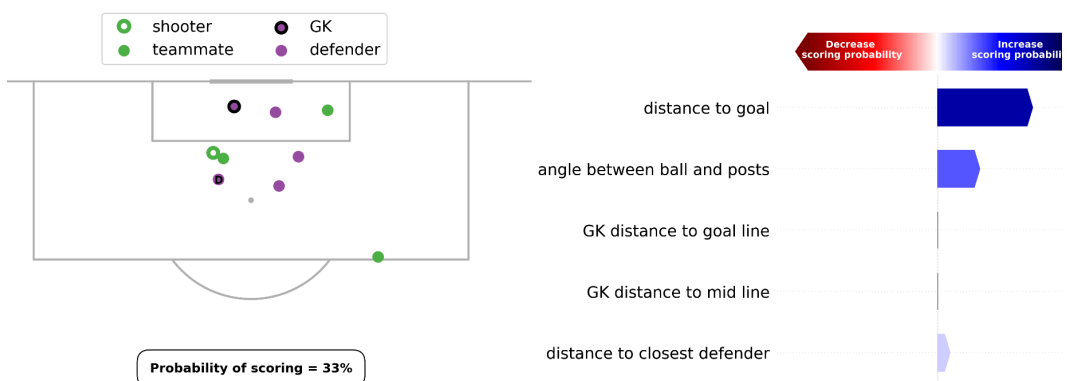
### Example 2

In this example, the features 'distance to goal' and 'GK distance to goal line' approximately compensate for their effect, so the predicted scoring probability (9%) is very close to the average scoring probability.



### Example 3

In this third example, the features 'distance to goal', 'angle between goal and posts', and 'distance to closest defender' support the prediction and significantly increase the scoring probability to 33%.



Your task will be to indicate to what extent you agree with each prediction and explanation. Additionally, you are also asked to identify the features, if any, whose impact is incorrectly represented by the explanation.