
SEE QUICKER. PERFORM BETTER.
OKKULO

Slow. Down. Time

OKKULO™ technology is revolutionising training for teams and individual athletes, improving performance by as much as 64%.

Imagine you could see, think and act quicker than the opposition whatever your sport.

Well, that's what OKKULO™ can do for you.





We speed up the player...

Our specialist training technology and environment use light science to override the biological process of the brain and adapt the players visual system to improve their perception and economy of movement. When training in the changing light levels of the system a players visual processing of information accelerates.



...and slow down the game

When performing back in normal light levels the athlete finds that a recalibration of the brain has taken place and that the improved visual processing continues, allowing them to consistently perform better.

In other words, we speed up the player and slow down their sport.

Upgrade your visual system

People say it's not the winning that counts, but the taking part. You try telling that to the owner of a soccer club or baseball team! The sentiment is all very well, but in practise, people want to win, need to win.

When it comes to success, some people want it to happen, others wish it would happen, OKKULO™ makes it happen.

That's what we're here for, to help athletes excel, to be the best they can be, to be better than they ever thought possible, or dreamed of.

Training the body can take you so far, training visual perception with OKKULO™ takes you to the limits of human sporting performance, using the eyes as a doorway to perform above and beyond



Forget marginal gains, we're talking exceptional gains.

OKKULO™ is designed to improve every member of your football club from goalkeeper to striker. Creating the change in the OKKULO™ chamber allows every player to see the ball quicker and be more reactive to the ball. This is equally beneficial to a goalkeeper saving a shot, a left back reacting to a ball high or low in the box, a midfielder controlling a cross field pass or a striker facing a driven cross.



OKKULO™ works for every position in soccer but with goalkeeping, we all know that there is no room for error. If the keeper can see quicker, therefore react faster to any given situation, error will be reduced, and the save rate increased. The improvement of this one player in the team can make a vast improvement over a season to the points tally.

For this reason, we chose to focus our trials on goalkeeping. Here are the key findings from our case study found on the next page.



+64%
Improvement in goals conceded during 90 minutes

+80%
Average save to shot percentage over a season

+50%
of our goalkeepers recorded a 100% shot to save rate

+50%
On average that goalkeepers keep clean sheets

OKKULO™ user Vaclav Hladky became number one goalkeeper in all the UK pro leagues for clean sheets and save percentages.

The table cleary shows his improvement post OKKULO™ intervention. This can be seen in the difference between the Salford City (pre OKKULO™) column and the Salford City (with OKKULO™) column.

	St Mirren 2019-20	Salford Pre OKKULO™ Aug 2020-Dec 2020	Salford Using OKKULO™ Dec 2020 - May 2021
Games Played	30	21	34
Shots on Target	132	52	108
Saves	95	38	86
Save %	72%	73%	80%
Clean Sheets	10	8	17
Clean Sheet %	33.3%	38%	50%
Goals Against	41	27	24
Goals / 90mins	1.37	1.29	0.71



Vaclav's goals conceded per 90 minutes dropped drastically to 0.71 from 1.29.

On 17 occasions (out of 34 games) when using OKKULO™ Vaclav saved 100% of his shots.

See the ball quicker

When we look at a scene, an upside-down image of it is formed by the lens and cornea of our eye onto its inner, back surface, where light-sensitive photoreceptors called rods and cones absorb the arriving light and produce a neural representation of the image.

This representation is processed and transmitted to the brain where it eventually leads to our perception of the scene and the objects within it. It is important to note that our perception is by no means instantaneous. Even in bright light, the delay between the scene being imaged and our conscious perception of the scene is about 200 ms. To put this delay into context, if a ball is moving at 90 mph, it will have travelled about 8 m before we are able to perceive it at any given instant. Thus, for us to interact with a fast-moving ball, we must predict where it will be 200 ms in the future. This is one of the vital skills of a successful sports player, and something we all tend to do unconsciously in interacting with the world around us. However, if something unexpected happens to the ball, such as being deflected by a player or object, we may not have time to react to the change before the ball passes us and or goes into the goal.

The OKKULO™ system depends on retraining sports players at unique light levels where the speed of visual processing is slower than at normal light levels. Each light level offers a varying degree of difficulty and provides a direct pathway to evolve the athletes movement. One of the ways in which it achieves this is by switching between two different types of photoreceptor with partially overlapping operating ranges: the sensitive rods, functioning at lower levels of illumination, and the more insensitive cones, functioning at higher levels.

In each light level the athlete must adapt to the environment and overcome the delay in visual performance. To do this the athletes motor system starts to economise, making it quicker and more direct. OKKULO™ does not change their technique, we evolve it and make it quicker and better able to cope. This happens during the first session and essentially switches the athlete on. Through regular training the athlete will lock in their new improved movement, maintain and then deploy when placed back into their natural environment.



When the athlete returns to normal light levels, the visual system then speeds up, creating the sense that the environment in which they now perform is slower than it was previously. In addition to the new, more economical and faster movement, the new found visual performance creates the perfect setting for the athlete to excel. The boost in performance is significant and has seen staggering results that are placing athletes at the top of their game with regards to their peers.

The Research

Thanks to our research, we know that the OKKULO™ system can raise performance levels through natural retraining right at the source of the decision-making process.

Several studies have been undertaken, in collaboration with Prof L.T. Sharpe and Prof A. Stockman – specialists in the field of rod-and cone-mediated visual adaptation – that substantiate the scientific premise of the OKKULO™ system.

This independent scientific testing has conclusively demonstrated the ability of the OKKULO™ system to improve reaction speed and enhance physical performance by as much as 23% with a 16% improvement in the velocity at which they could comfortably react.

A cricket specific study, undertaken at Durham University's Sporting Academy in conjunction with former England cricketer Graeme Fowler involved a test of cricketers using only the OKKULO™ system for training throughout the study period. In total, the participants trained in the OKKULO™ light levels for 4.5 hours over an 8-week period with no other batting practice taking place.



The OKKULO™ effect was present with each study and enabled us to make professional cricketers' bat consistently at speeds of 99 mph in little over 4 hours of training. The same study was conducted with table tennis and football players. With the success of the trials, OKKULO™ designed, manufactured and tested a new wave of football systems that are designed to improve the reaction response times of both outfield players and goalkeepers. OKKULO™ improves hand eye co-ordination, reaction time and also foot eye co-ordination for every single member of a football club and it does so in a safe, natural and controlled environment.

The last 2 years has seen us take huge steps forward. We have a clear understanding about what we need to do to improve the athletes visual perception and make them significantly quicker in the process. We make their movement more economical, which allows them to get from A to B much more quickly. The two key changes in tandem create what we call "exceptional gains".

OKKULO™ is only limited by your imagination

The OKKULO™ system is a unique training environment in which the intensity and spectrum of the illumination is carefully controlled during training to enhance performance under normal illumination conditions.

The OKKULO™ environment can be created in almost any enclosed space with the possibility of both internal and external environments depending on the client's needs.

The system comprises of our unique lighting stacks, ball-illumination technology, ball-delivery machine, the OKKULO™ goal-sensing technology, goal-sensing targets and OKKULO™ software that allows the coach to view the performance of the player in real time. The data is then collated to build a unique OKKULO™ Score, tracking performance over the duration of a player's career.





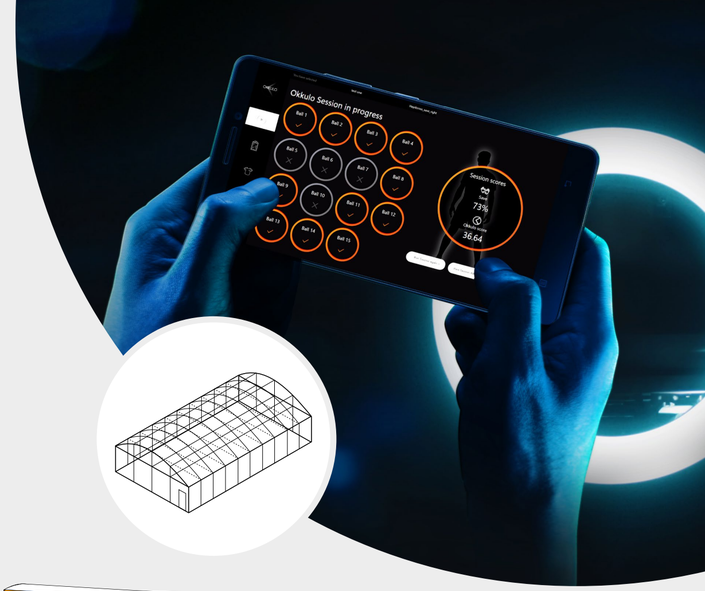


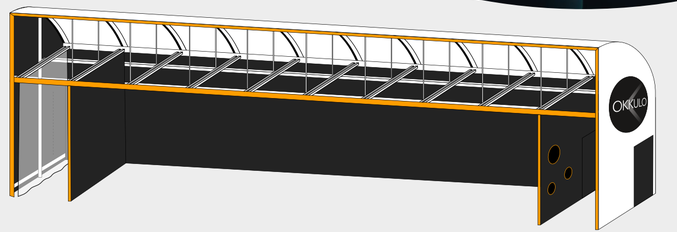
OKKULO™ STANDARD

The OKKULO™ system comes as standard or can be designed bespoke to your requirements.

We work with your club to design a system that will get the best out of your team whilst working within your budget.

The OKKULO™ standard system is the perfect way in which to experience the Okkulo environment if space is an issue within the clubs current facilities.





OKKULO™ KUBE



OKKULO™ KUBE is modular and can be designed to fit your requirements. Simply add units to make your perfect environment for your players to excel in.

The OKKULO™ Kube system can be branded and modified in many ways to fit in with the clubs colour schemes, branding and architecture.

Modular Approach



- 100% reuseable. Engineered for extreme environments and comes ready for its interior fit-out.
- Each unit is 6m(w) x 2.5m(d) x 3m(h) and your OKKULO™ KUBE system can be configured in 2.5m increments.
- Your membrane has a range of finish options available including a choice of colours and all-over or partial printed branding
- The structure is built from recyclable aluminium Space-Frame wrapped in a low pressure, Air-Tension Membrane.
- Fascia Configuration Options:
  Polycarbonate Panels
  HPL Panels (White, Black & Grey)
  Reinforced Glass Panels
  All-Over Graphic Appliqué
  Double Sliding Doors

Get the best out of your team



The best way to experience OKKULO™ is to get in there and try it out. This way the player and coach get to see at first hand the power of OKKULO™. We have the first of a kind OKKULO™ Academy in Newcastle. This facility will allow the coaches and players the opportunity to train at their own pace with the training regimen that's specific to them.

We would like to offer any club or academy who has an interest in purchasing an OKKULO™ system the opportunity to test it out. We understand that purchasing an OKKULO™ system is a substantial investment, but we are confident that every player will improve above and beyond their current ability and therefore the trial period will provide the necessary information to back up our claims.

The test site is located at:
Whitley Park, Whitley Road, Newcastle Upon Tyne, NE12 9FA



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