

# THE ROCKETS: SPORTS ANALYSIS FOR WHEELCHAIR BASKETBALL TEAM

## The Rockets: Tracking wheelchair and body movement

Transforming coaching & performance of The Rockets Wheelchair Basketball team.

### The aim

To analyse wheelchair basketball players, to better understand techniques, body movements and chair requirements to help improve performance. As one of the fastest growing disability sports in the UK, wheelchair Basketball is fast, ferocious and fun.



Head coach for **The SportsAble Rockets Wheelchair Basketball team** in Berkshire, Keith Pamment is also an engineer, and was interested in how tracking the movement of players and different wheelchairs could have an impact on the performance of basketball teams.

Target3D were delighted to collaborate and help him towards using mocap tracking technology to improve play.



### The solution

Using six different types of wheelchair, players from the Rockets donned Noitom Perception Neuron Pro tracking suits on their upper bodies with the chairs and the wheels being tracked separately. Keith was keen

to monitor the players and how they might use their arms or body posture in a certain way and how this could influence the best chairs for them and his coaching strategy.

First up, players were tracked sprinting, weaving, dribbling and playing one-on-one, followed by tracking of team games, in a half court setting where Target3D had installed a system of 16 x OptiTrack Prime17's - plus more OptiTrack cameras and a GoPro for reference.

### The results

Tracking the results with the Access Neuron Pro software, Keith could follow the wheelchairs and the players bodies moving simultaneously. It was immediately clear to him how the varying speeds and the way individuals maneuvered between different basketball drills could help him to better understand techniques, body movements and chair requirements to improve team performance.



At the end of the tracking day Keith explained,

*"Capturing the movement of the players and being able to analyse them from every angle - recreating them in a virtual world - will transform how I coach and deliver sessions. Moving forward from this I am starting my own community interest company with my wife, a wheelchair basketball player, to deliver sessions, develop technology use and generally help the disabled community especially within basketball."*

To find out how body tracking technology can enhance your sports team, [speak to Target3D](#) today.