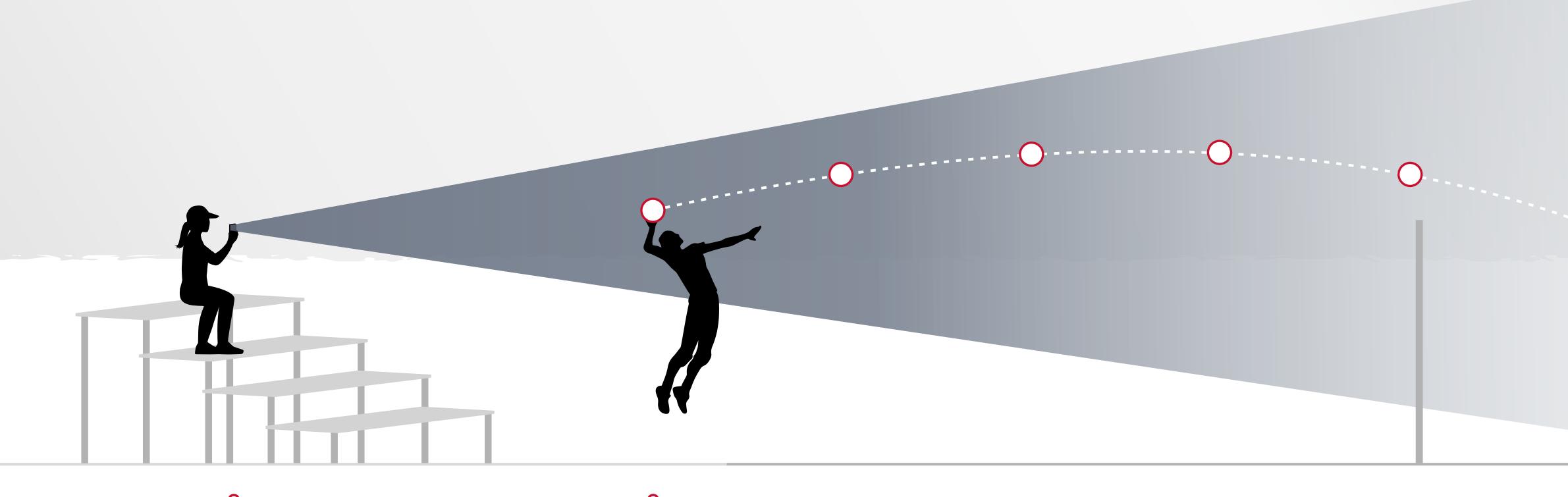


MEASURING VOLLEYBALL OVERHAND SERVE CORRECT SET-UP





SET-UP INSTRUCTIONS

- 1. The coach is sitting high in the bleachers to ensure the radar is at the same height as the ball is being served. If you do not have bleachers behind the server, you would need to find a tripod or mount the radar to the same height as the ball is making contact with the server's hand.
- 2. Carefully aim the radar beam allowing the ball to travel down the beam path.
- 3. Radar must be a minimum of 15-20 feet from the ball, this allows the spot size of the radar beam to spread out.
- 4. Serve the ball directly in line with the radar beam.

 Only count the speeds where the ball remains inside the radar beam.

IMPORTANT TIPS

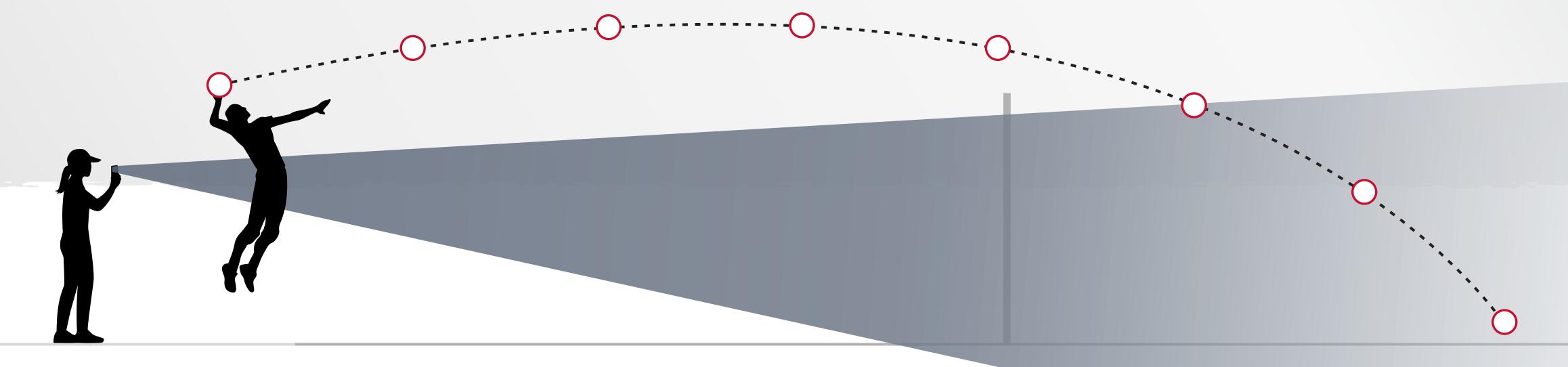
- Radar guns focus radio waves down into a narrow beam, like a flashlight beam. Aim carefully down the beam to get good readings.
- 2. Check for interference by holding down the radar main button and scanning the area when there are no balls in flight.
- 3. Ensure your set-up is safe to prevent the radar from being hit by the ball and any property damage or injury.

Minimum 15 to 20 feet radar to ball



MEASURING VOLLEYBALL OVERHAND SERVE IN-CORRECT SET-UP





3-5 feet is too close

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CAUSES OF INACCURATE READINGS

- 1. The radar is not at the same height where the ball is making contact with the server's hand. It is much too low.
- 2. The coach is too close to the athlete with the radar. We need the radar to be 15-20 feet away from the ball. In addition, the coach is no in alignment with the path of the ball at the point of impact.
- 3. The radar beam must be aimed directly in line with the path of the ball.
- **4.** The ball gets into the path of the radar beam after it has slowed down.

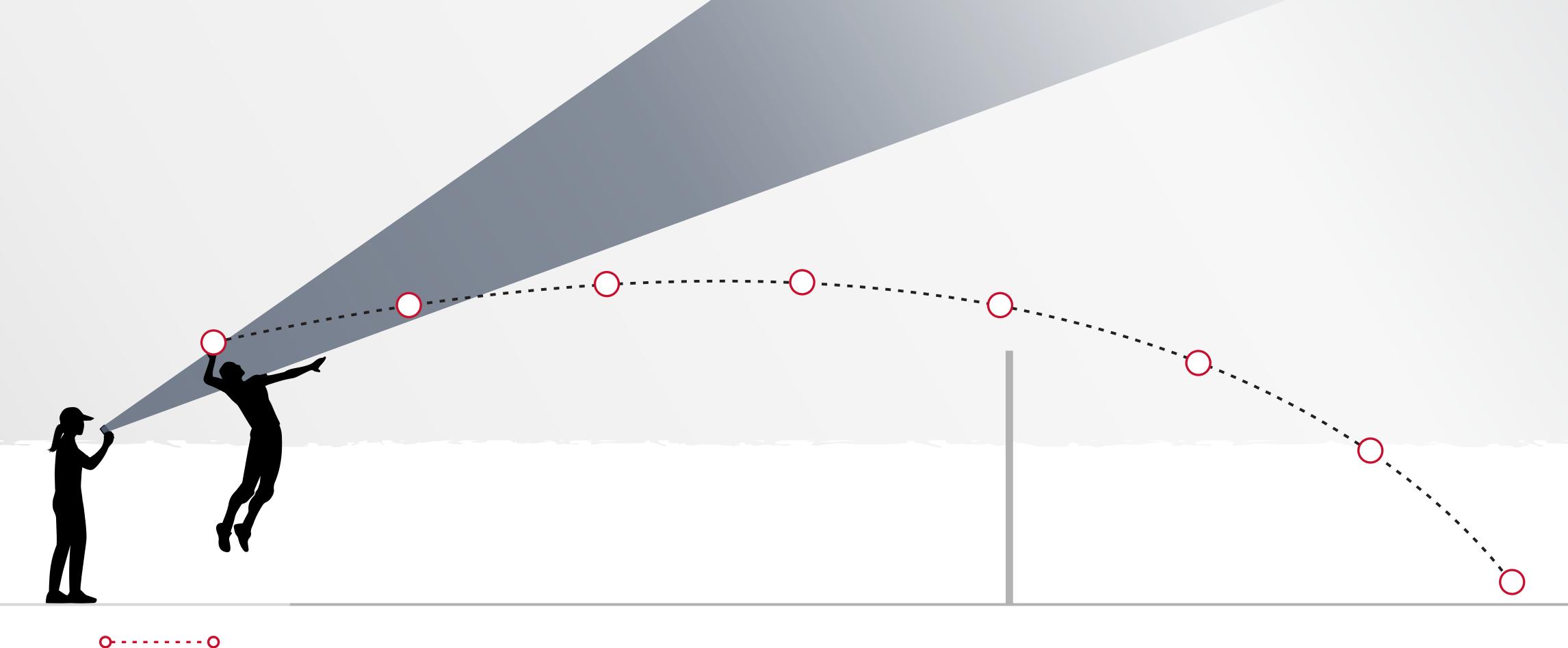
IMPORTANT TIPS

- Radar guns focus radio waves down into a narrow beam, like a flashlight beam.
 Aim carefully down the beam to get good readings.
- 2. Check for interference by holding down the radar main button and scanning the area when there are no balls in flight.
- 3. Ensure your set-up is safe to prevent the radar from being hit by the ball and any property damage or injury.



MEASURING VOLLEYBALL OVERHAND SERVE IN-CORRECT SET-UP





3-5 feet is too close

CAUSES OF INACCURATE READINGS

- If there is an angle between the path of the ball and the radar beam, you will get low readings due to the Cosine effect.
 The radar beam must be aimed directly in line with the path of the ball.
- 2. The coach is too close to the athlete with the radar. We need the radar to be 15-20 feet away from the ball. In addition, the coach is not in alignment with the path of the ball.
- 3. The radar beam must be aimed directly in line with the path of the ball.

IMPORTANT TIPS

- Radar guns focus radio waves down into a narrow beam, like a flashlight beam.
 Aim carefully down the beam to get good readings.
- 2. Check for interference by holding down the radar main button and scanning the area when there are no balls in flight.
- 3. Ensure your set-up is safe to prevent the radar from being hit by the ball and any property damage or injury.