

Appendix SI. Gym set-up for the Wheelchair Mobility Performance test.

Wheelchair Mobility Performance test

The measurement outcome of the test is time (in s). Time is recorded for each activity and the sum of the 15 separate activities is overall performance time. The time is recorded based on video-analysis, starting when the wheelchair began to move and stopping when the wheelchair is stationary. For each starting and stopping position the wheel axis should coincide with the pawns. All ball-handling moves performed during the test had to be in accordance with the rules for dribbling by the International Wheelchair Basketball Federation (IWBF).

Activity 1: Tik-tak box

Athlete starts on position 1, between 2 pawns 1 m from the tik-tak box. The athlete performs 3 short movements. On the start signal, the athlete drives forward, collides with the tik-tak box on the left side and drives backward back to the pawns. The athlete repeats the movement, but collides with the tik-tak box in the middle and the third time the athlete collides with the right side of the tik-tak box. The performance time for test 1 is the time necessary to complete the 3 movements.

Activity 2: 180° turn on the spot (left)

Athlete moves to the start position (position 2) while facing outwards (Fig. 2). Athlete starts from a stationary position with their wheel axis between the pawns. After the start signal the athlete makes a half turn on the spot (180°) to the left.

Activity 3: 12-m sprint

The athlete stays on the same spot and is now facing inwards due to activity 2. The athlete starts from standstill and sprints as quickly as possible for 12 m. The athlete has to stop the wheelchair on the 12-m position between the pawns.

Activity 4: 12-m rotation (right)

The athlete is facing outwards now at position 3. The athlete starts from standstill and performs a 12-m curve to the left (radius 1.9 m) as quickly as possible. The athlete has to stop the wheelchair on position 3.

Activity 5: 12-m rotation (left)

The athlete performs the same activity as activity 4, but this time to the left direction.

Activity 6: 180° turn on the spot (right)

The athlete performs the same activity as activity 2, but this time to the right; i.e. on position 3 the athlete changes from facing outwards to facing inwards.

Activity 7: 3-3-6-m sprint

The athlete performs a 12-m sprint forward with full stops at 3, 6 and 12 m from position 3 back to position 2. Starting and stopping should be performed as quickly as possible. The stops are assessed visually by the trainer/coach. The rotation of the wheels must come to a complete standstill.

Activity 8: 3-3-6-m rotation (left)

The athlete is back on position 2 and facing outwards. The athlete starts from a standstill and performs a 12-m curve to the left as quickly as possible with stops at a quarter circle (3 m), a half circle (6 m) and then back to the starting position.

Activity 9: 3-3-6-m rotation (right)

The athlete performs the same activity as activity 6, but this time to the right.

Activity 10: 90°–90° turn on the spot with stop (left)

The athlete performs a half turn on the spot (180°) to the left with a stop at 90°. At position 2 the athlete changes from facing outwards to facing inwards.

Activity 11: 12-m dribble

The athlete performs a 12-m sprint while dribbling the ball and stops at 12 m. The athlete moves from position 2 to 3.

Activity 12: 12-m rotation dribble (right)

The athlete performs a 12-m curve to the right while dribbling the ball. The athlete has to stop at position 3.

Activity 13: 12-m rotation dribble (left)

The athlete performs a 12-m curve to the left while dribbling the ball. The athlete has to stop at position 3 and is facing outwards.

Activity 14: 90°–90° turn on the spot with stop (right)

The athlete performs the same activity as activity 10 on position 3 (facing outwards to inwards), but this time to the right.

Activity 15: Combination

The athlete performs a 12-m sprint (to position 2), a turn right or left, a 12-m slalom and a turn back to position 3. All activities are performed in succession.