

WHEELERJUMP
TEST EXECUTION

I. Individual Jumps

II. Neuromuscular Profile

III. Plyometric Drop Box

IV. Plyometric Hurdle Height

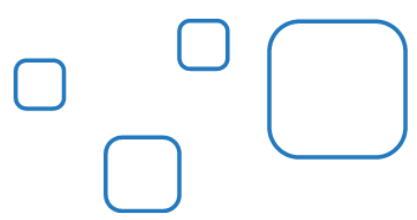
V. Neuromuscular Fatigue

VI. Training Fatigue

VII. Lateral deficit

VIII. The capacity of repeating sprints





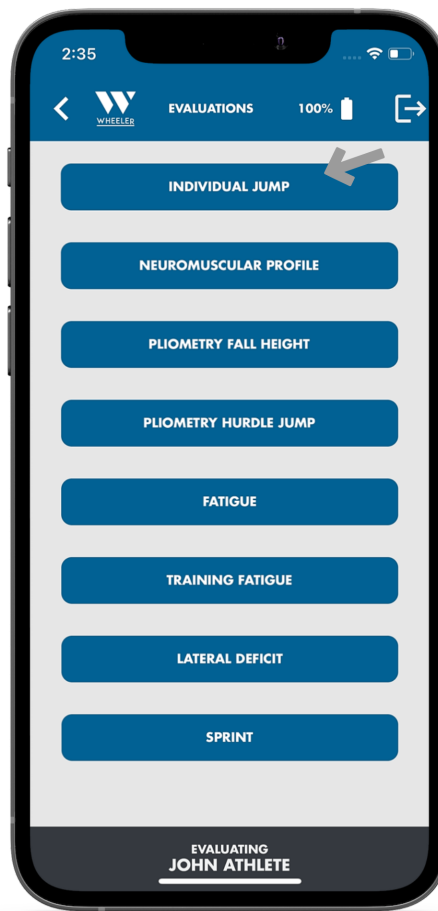
I. Individual Jumps

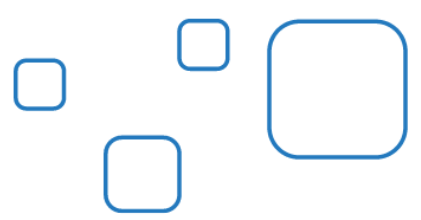
A. Test execution

The Individual Jumps test assesses the jumping height of 6 different Jumps.

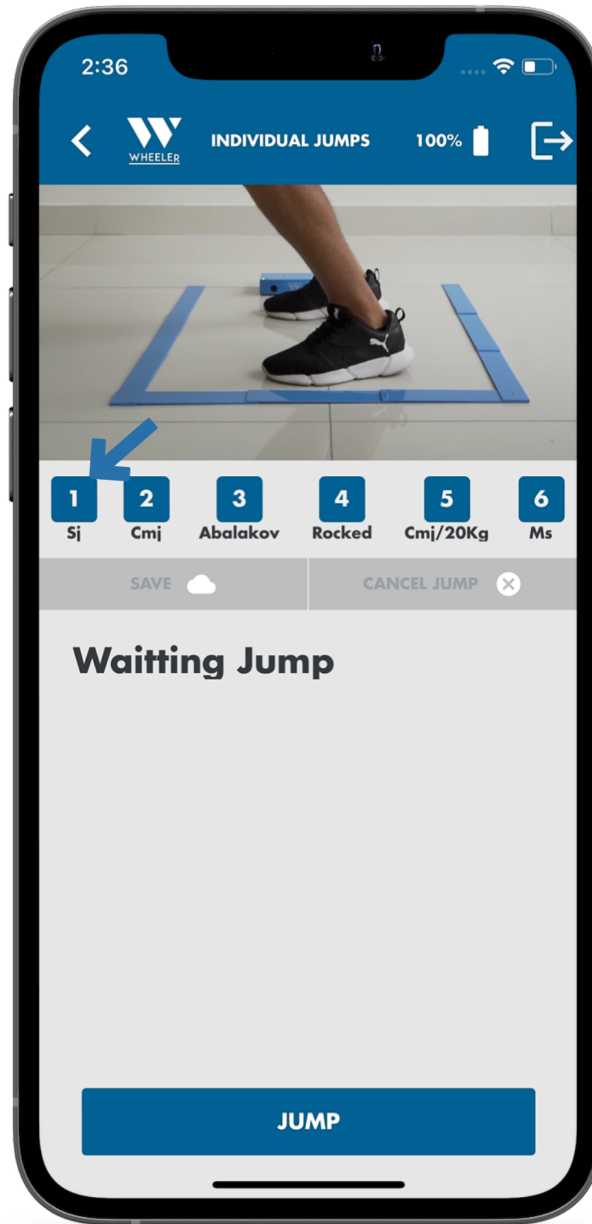
- Squat Jump (SJ)
- Counter Movement Jump (CMJ)
- Abalakov
- Rocked Jump
- Jump with weight on shoulders
- Jump with hands

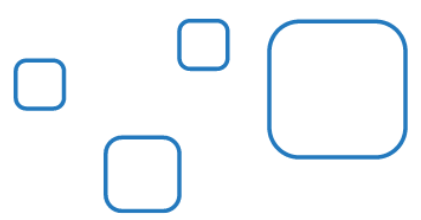
1. To start, choose **“Individual Jump”**.



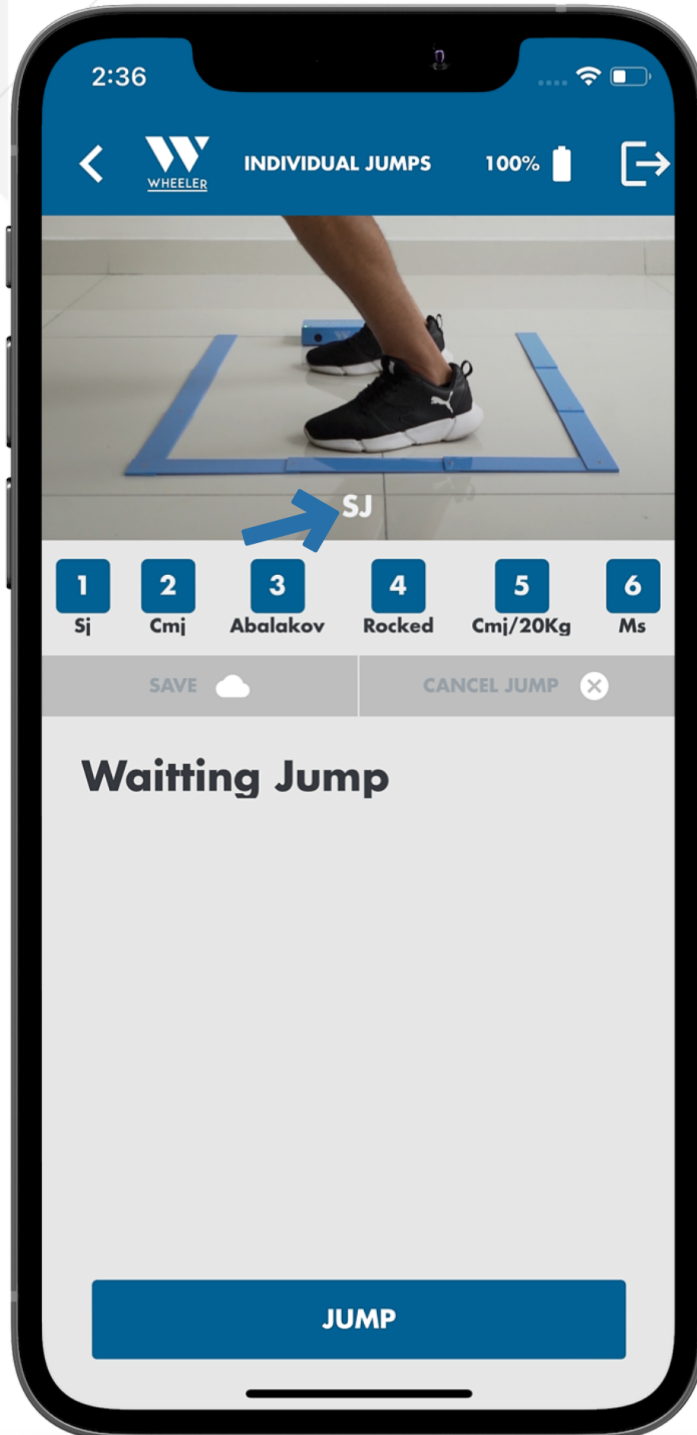


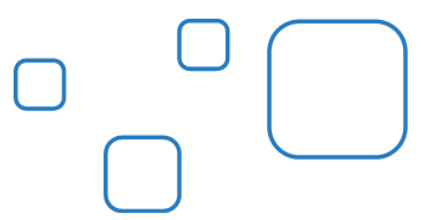
2. Once on the testing interface, select which test you would like to run. For this example, we will initially choose the **“Squat Jump”** or **“SJ”**.



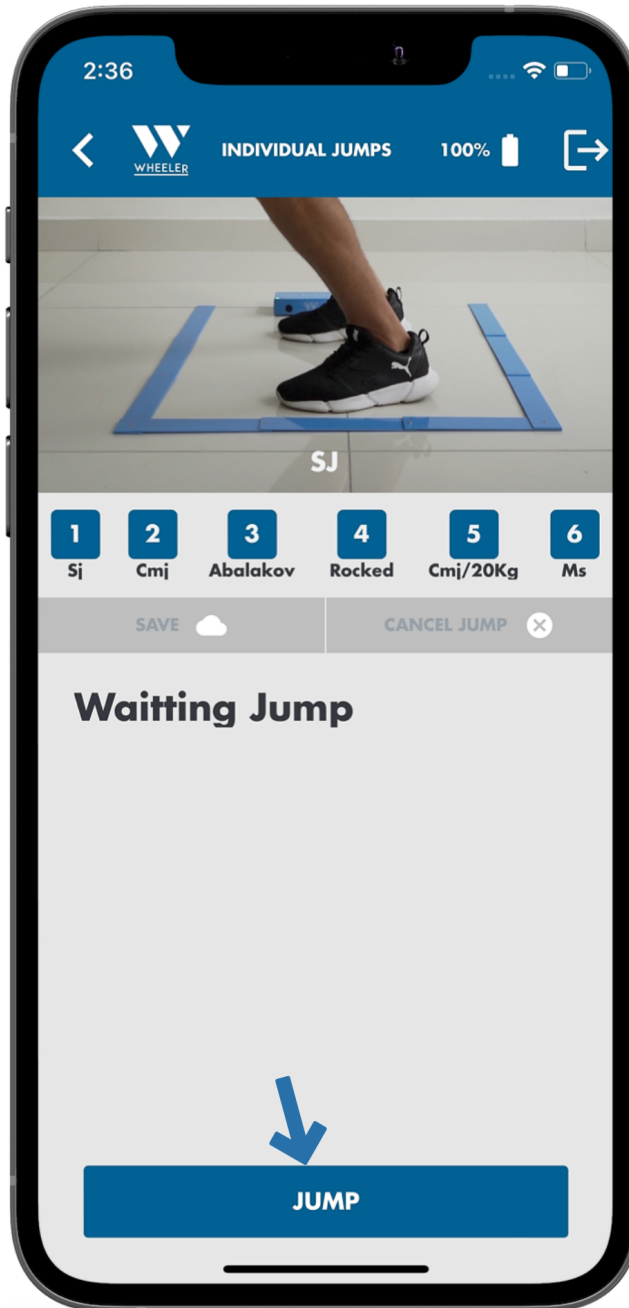


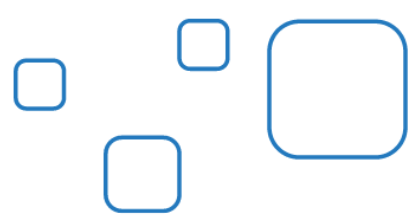
3. Once selected, the test name will appear above the test names



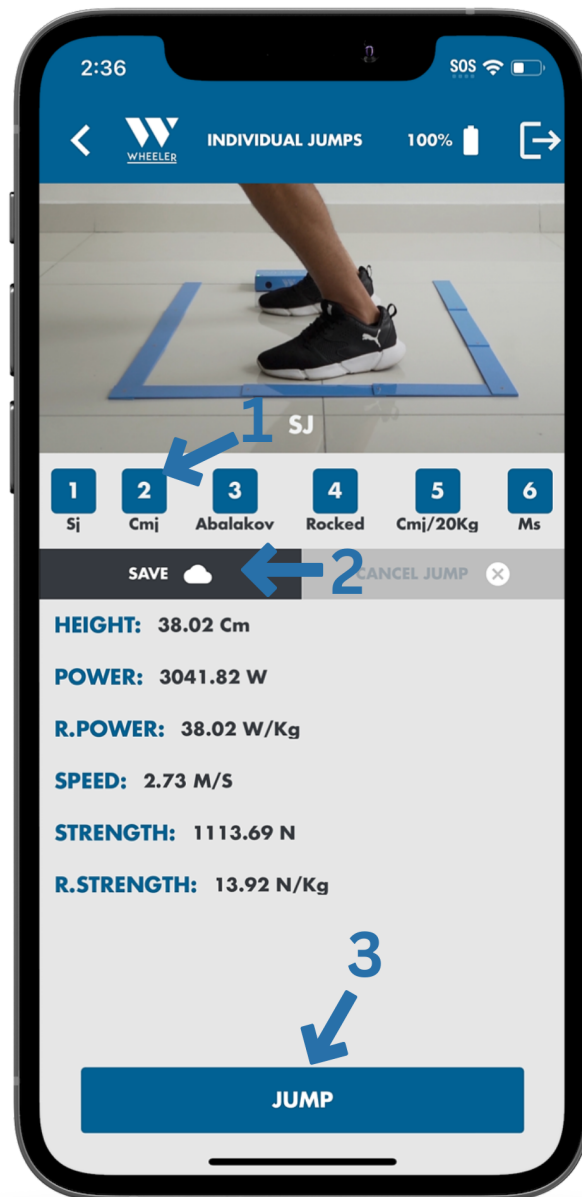


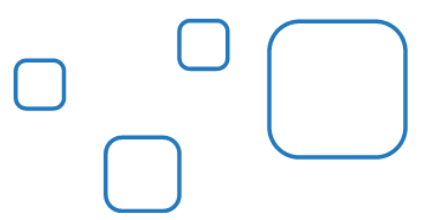
4. To initiate the test, the athlete needs to be located in the assessment area. Tap on **“Jump”**. The athlete needs to take off and land in the area. As soon as the athlete lands, results will be displayed on the screen.



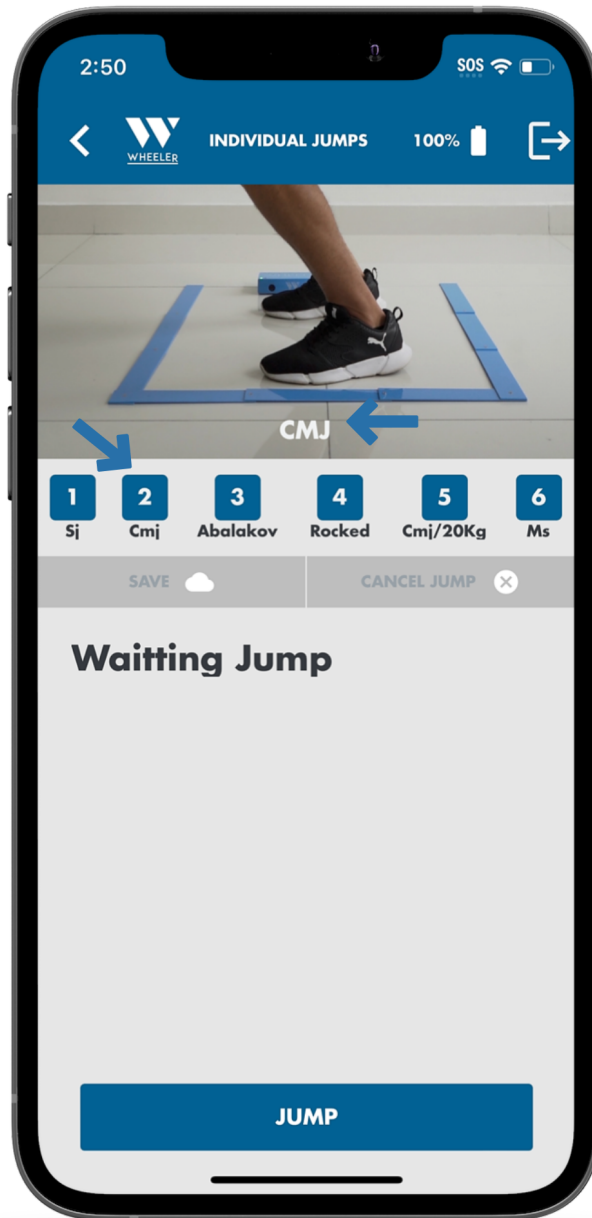


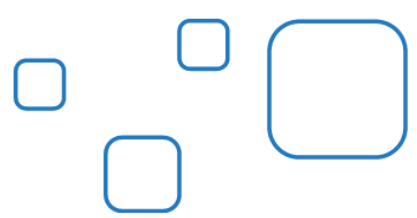
5. Once the results are displayed, the evaluator will be able to:
 - 1) Initiate another test without saving the previous test by tapping on any other test.
 - 2) Save the test results by tapping on **“Save”**, and initiate another test.
 - 3) Repeat the test by tapping on **“Jump”**





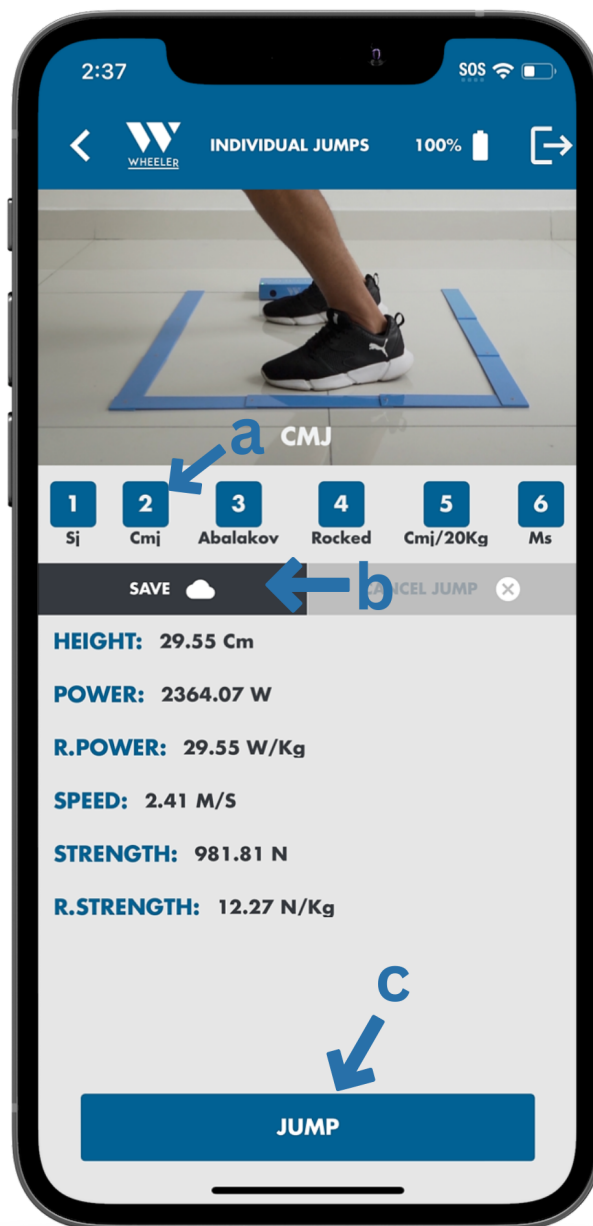
6. To change to a different test, tap on the test icon of the test that will be run. The title of the test will appear once the test is selected. In the following example, we selected the **Counter Movement Jump (CMJ)**.

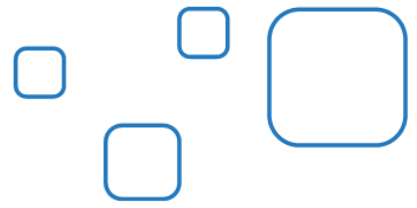




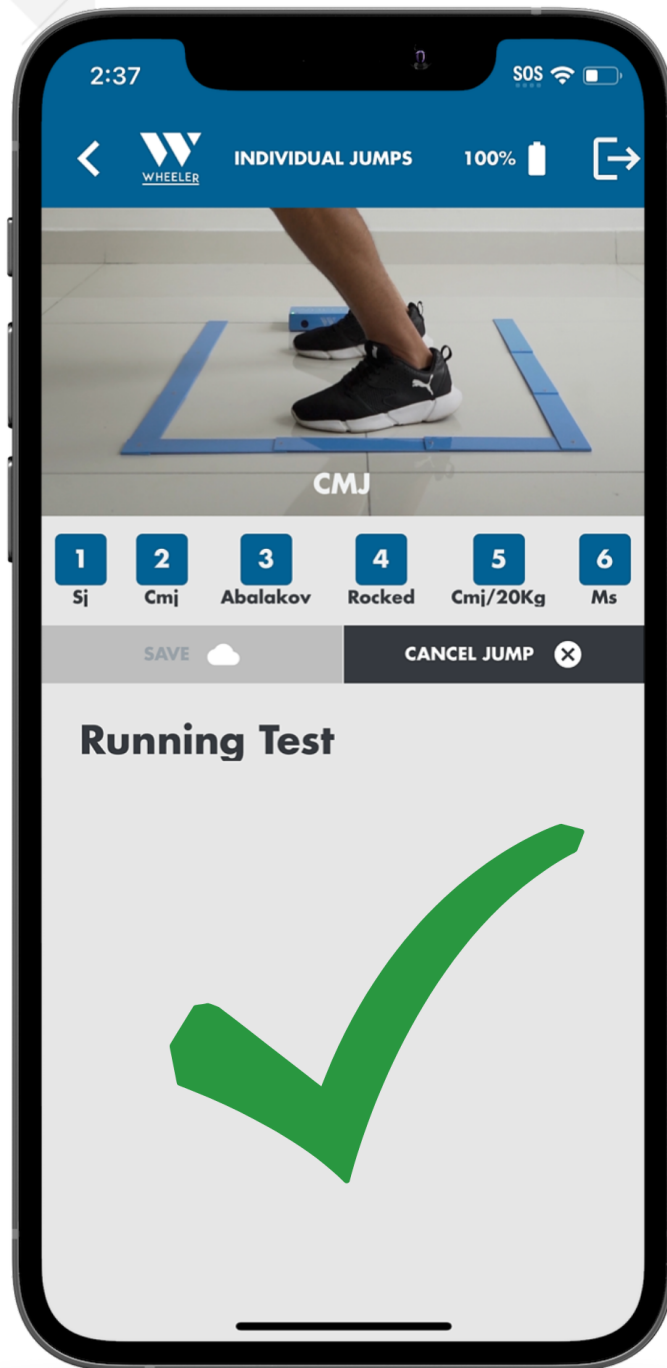
7. Once the results are displayed, the evaluator will be able to:

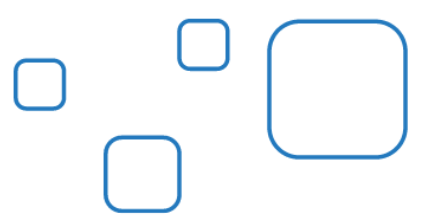
- a. Initiate another test without saving the previous test by tapping on any other test.
- b. Save the test results by tapping on “**Save**”, and initiate another test.
- c. Repeat the test by tapping on “**Jump**”




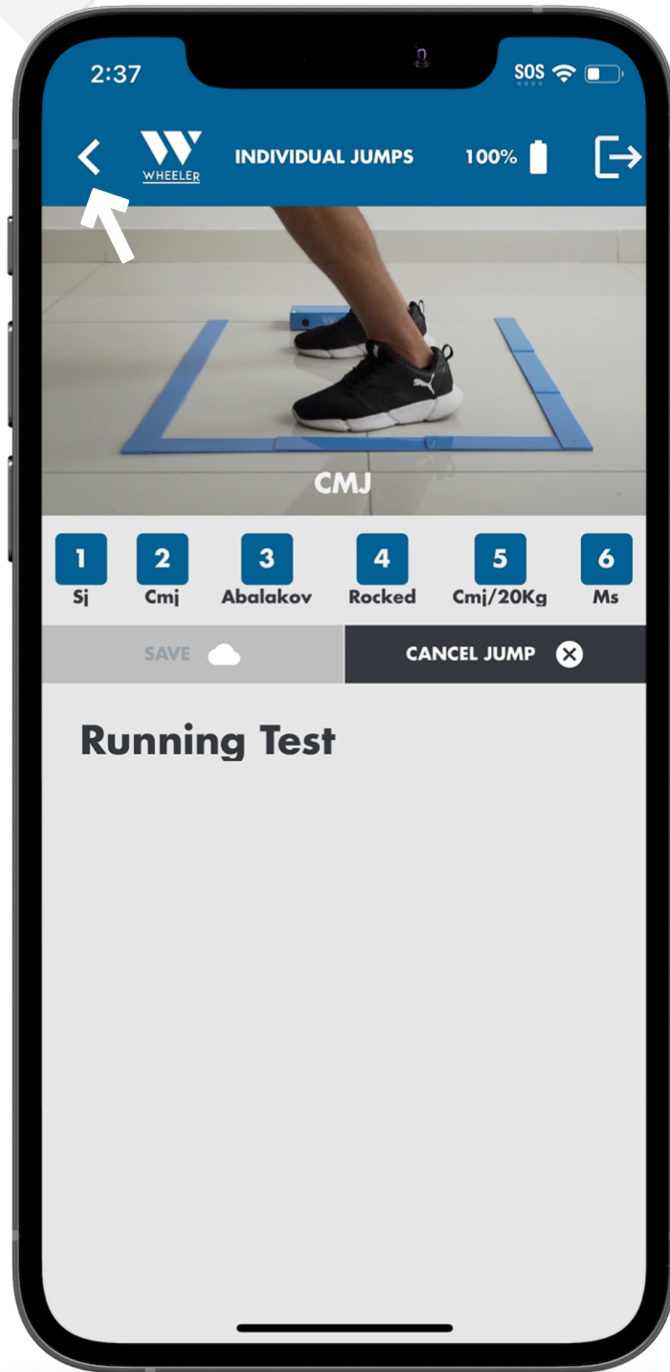


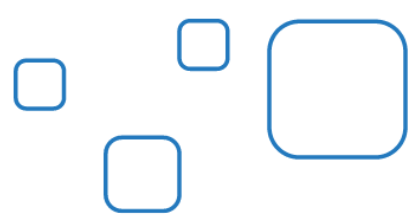
7. To run the rest of the jumps, follow the same steps as the previous jumps.





8. After finishing all of the testings, tap on the  of the left-upper corner to exit the testing interface and return to the main menu.





II. Neuromuscular Profile

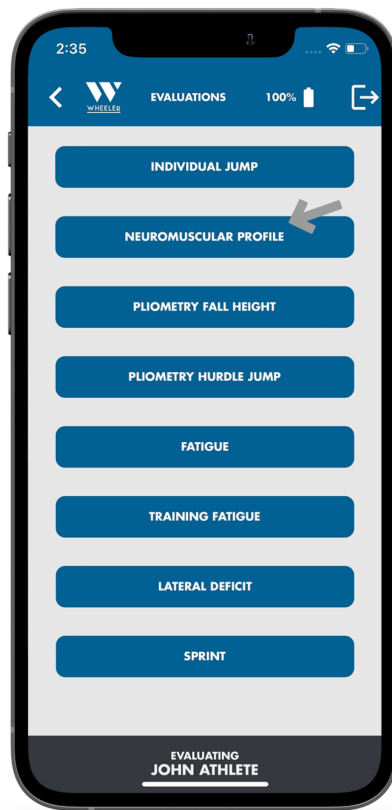
The neuromuscular profile is a test that helps assess the level of an athlete in the 3 different phases of the movement:

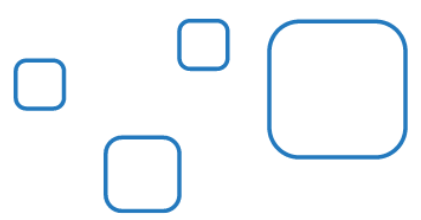
- Concentric
- Eccentric
- Reactive

This test will help the evaluator to assess the strength condition of the athlete in 3 minutes and to prescribe strength training later.

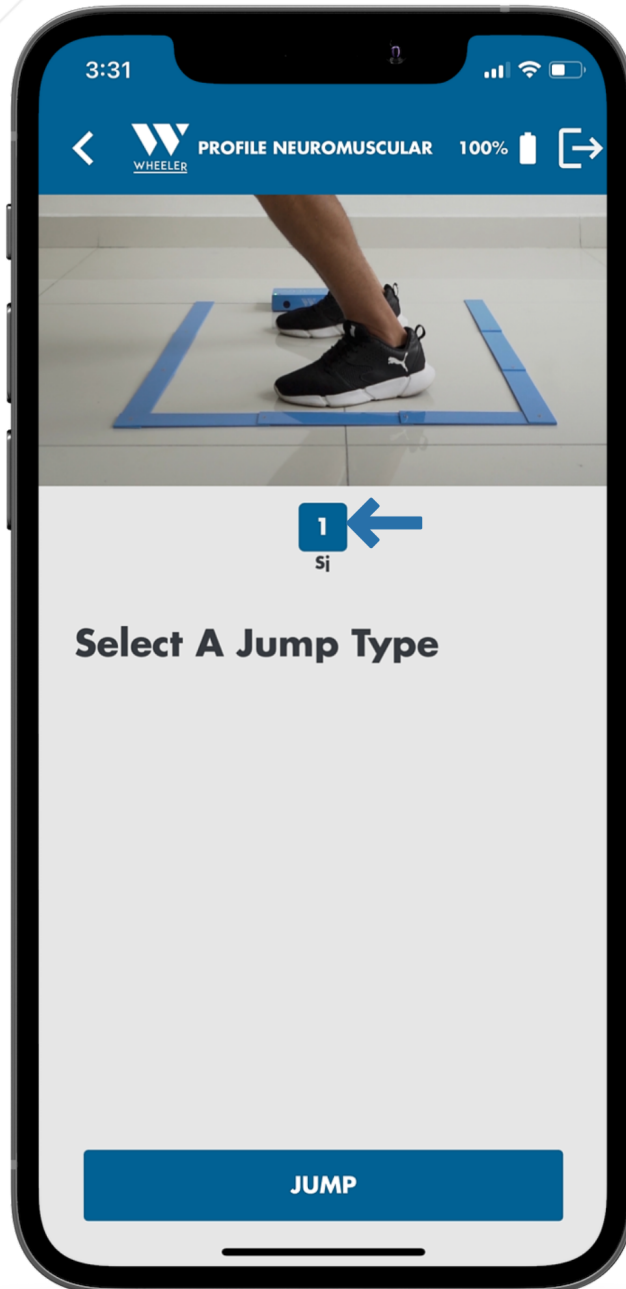
A. Test execution

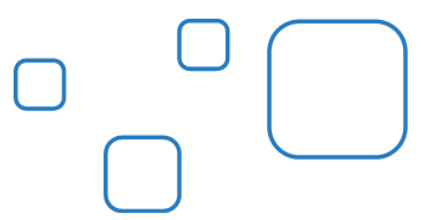
1. To start, choose the **Neuromuscular Profile** assessment.



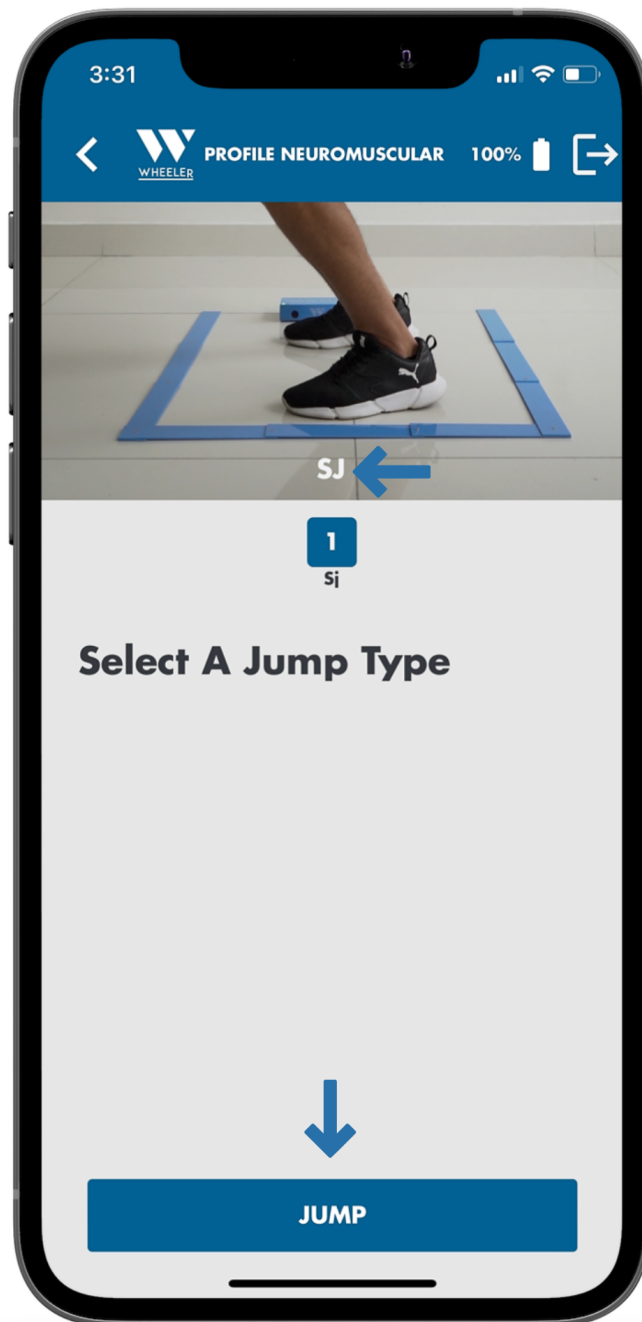


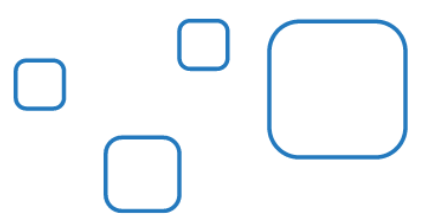
2. Once on the assessment interface, tap on “SJ”. This is the first jump of the Neuromuscular Profile.





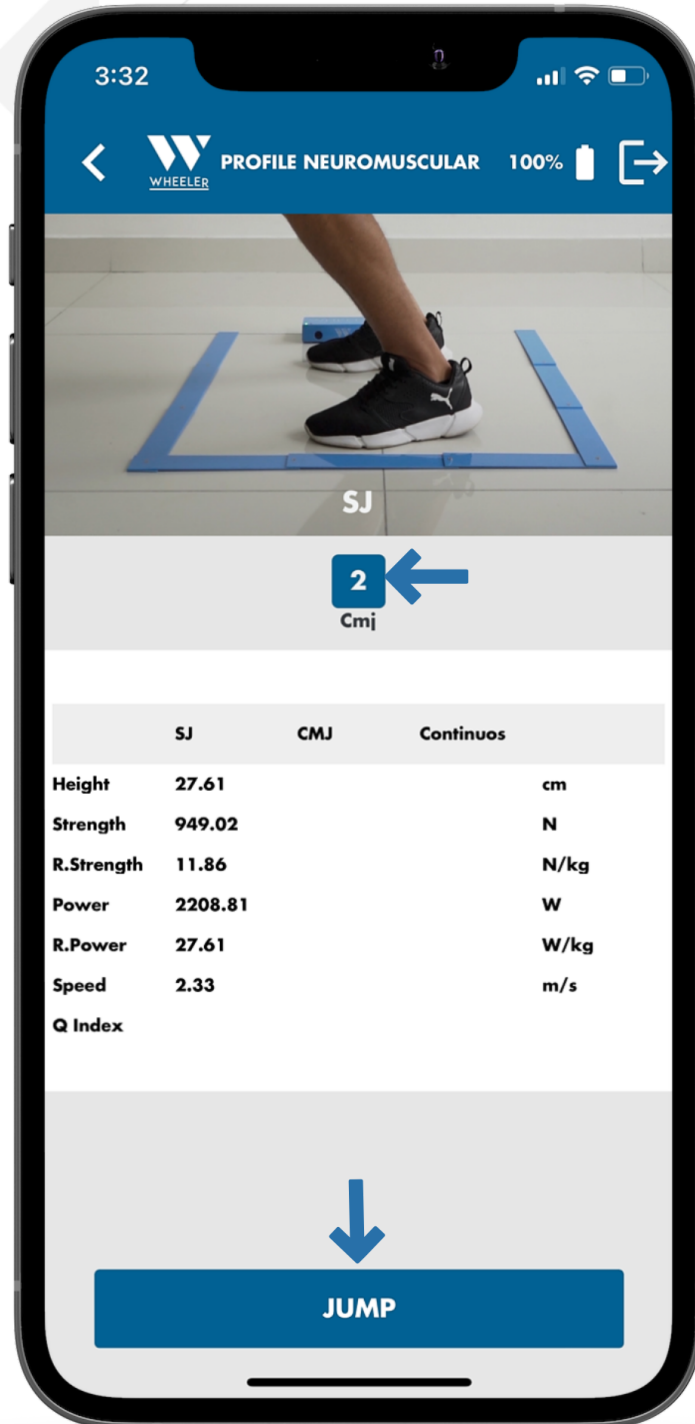
3. Once selected, the title of the jump will appear on the top of the screen. Locate your athlete in the assessment area and select “Jump” to start the assessment.

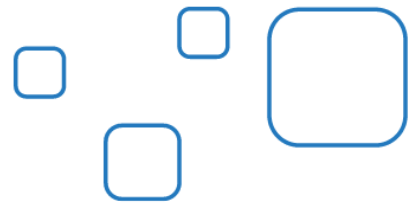




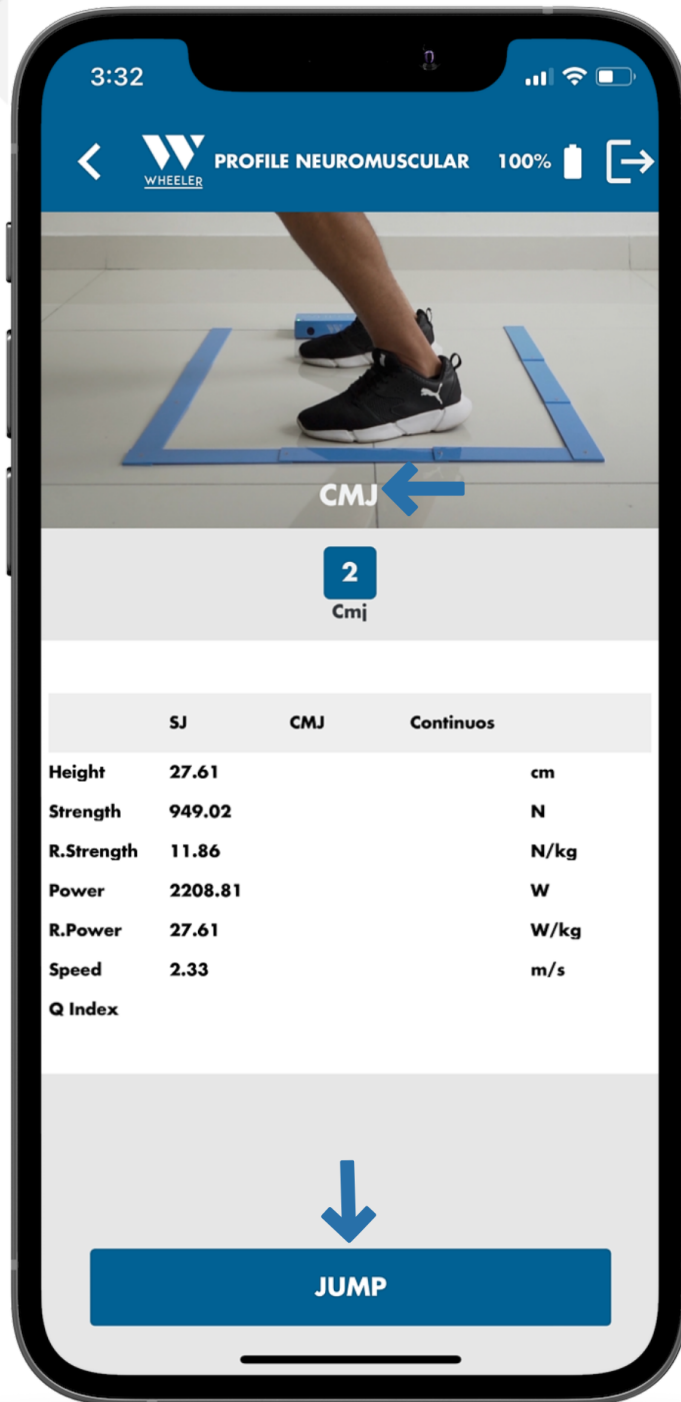
4. If you want to repeat the **SJ**, select on “**Jump**”.

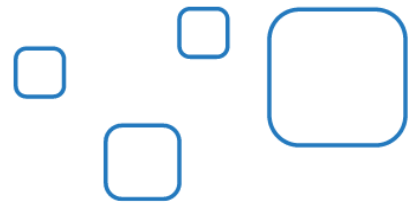
To continue with the **Countermovement Jump**, tap on “**CMJ**”.





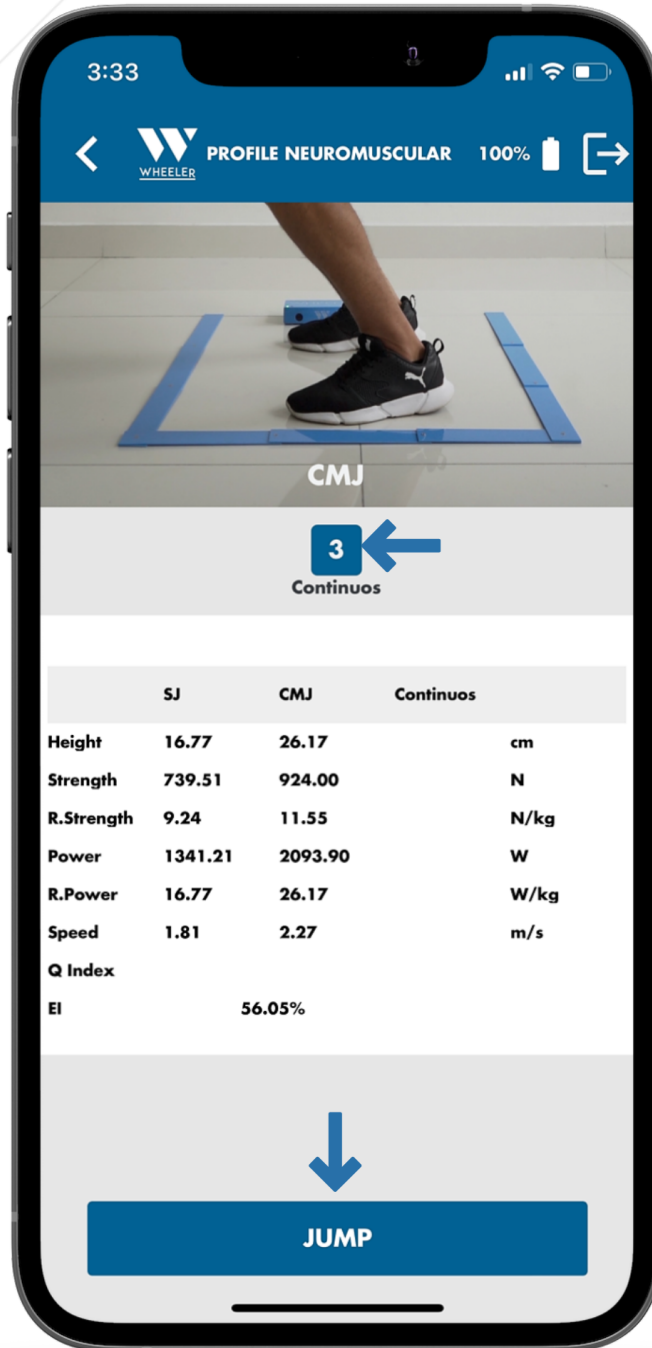
5. If correctly selected, the title **CMJ** will appear on the top of the screen. Locate the athlete in the assessment area and select **“Jump”** to initiate the **Countermovement Jump** assessment.

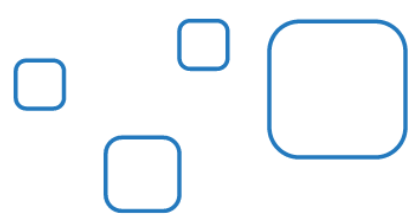




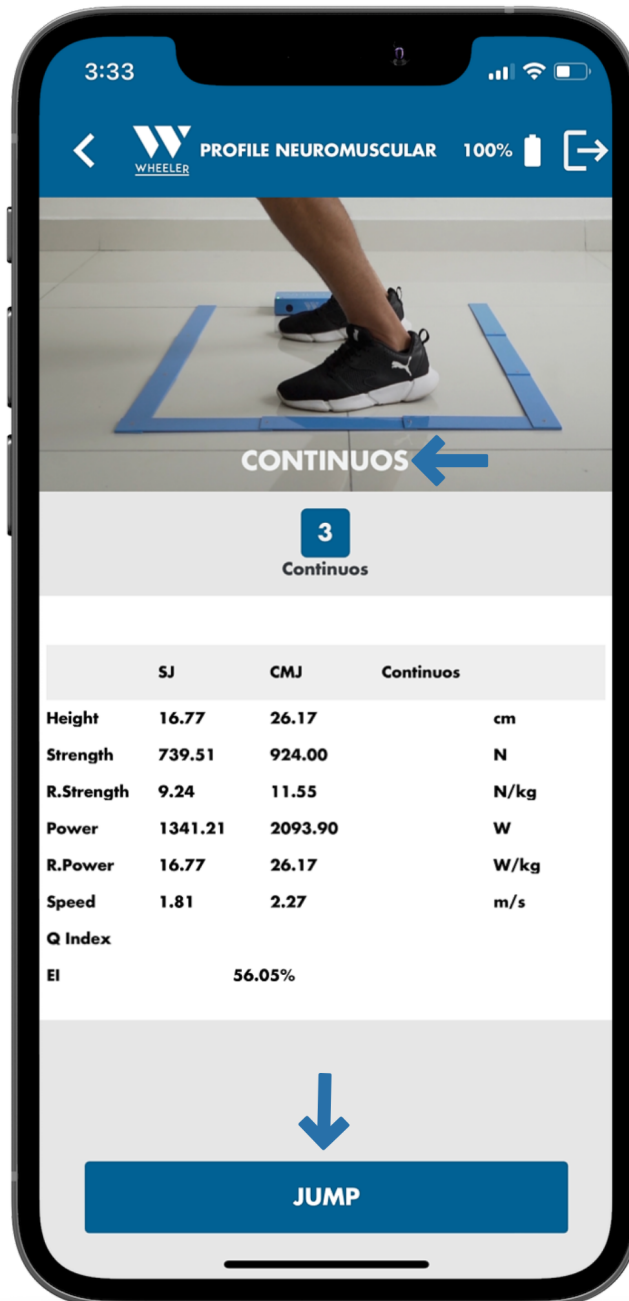
6. If you need to repeat the **SJ**, select “**Jump**”.

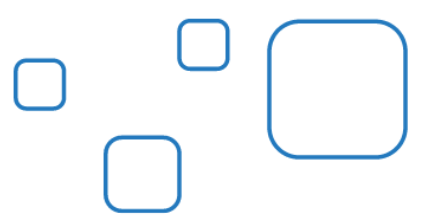
To continue with the **Continuous Jumps**, tap on “**Continuous**”.



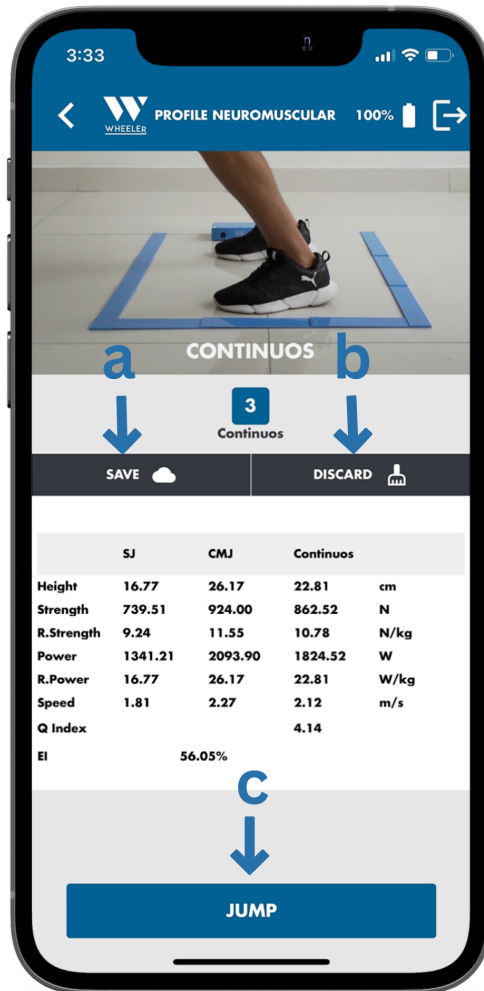


7. If correctly selected, the title **Continuous** will appear on the top of the screen. Locate the athlete in the assessment area and select **“Jump”** to initiate the **Continuous Jump** assessment.



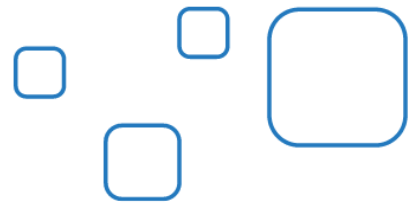


8. When the assessment is completed the following options will become available:
- Save the assessment on the cloud by tapping on **“Save”**.
 - Discard the assessment by tapping on **“Discard”**.
 - Repeat the Continuous jumps by tapping on **“Jump”**.

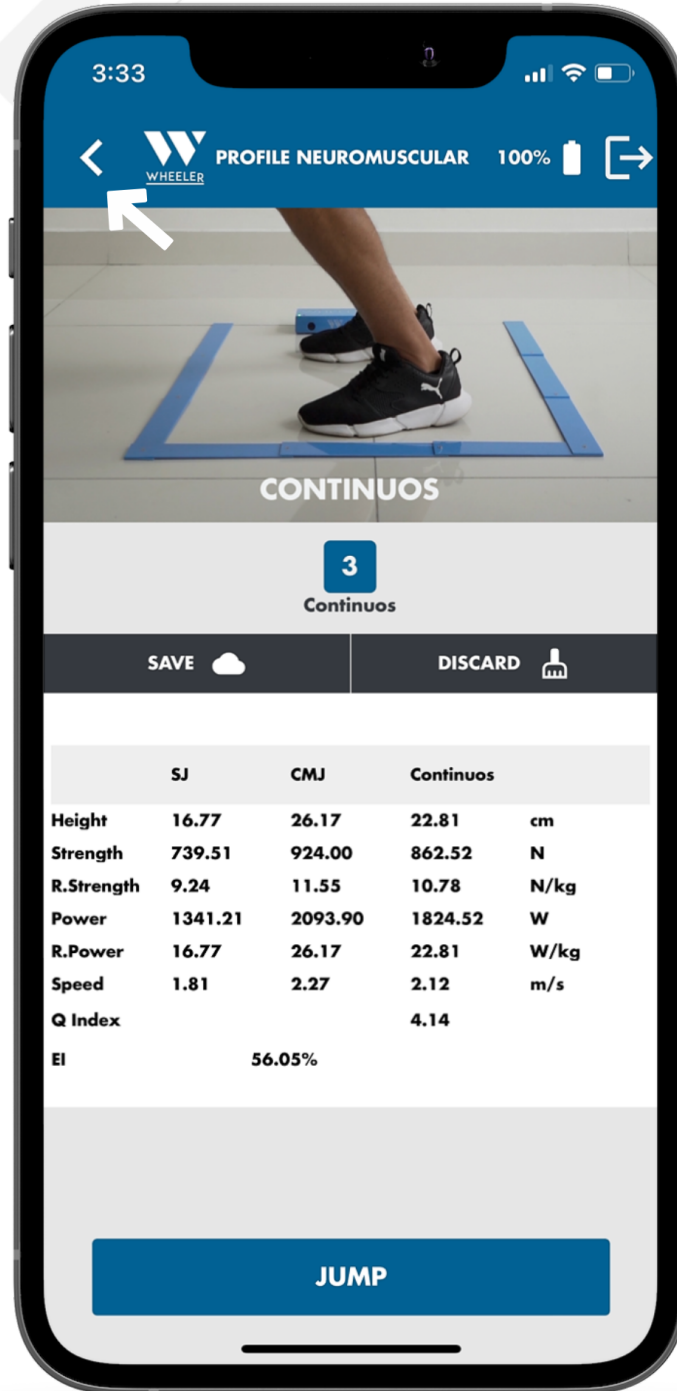


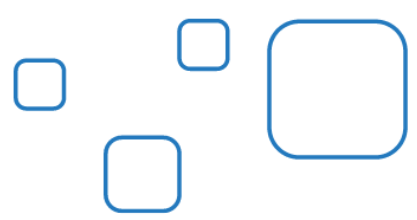
You can review the test results right away. If you decide to save them, you can review them later in the **“Results”** section of the app.





9. To go back to the other tests, tap on the “<” in the top left corner.



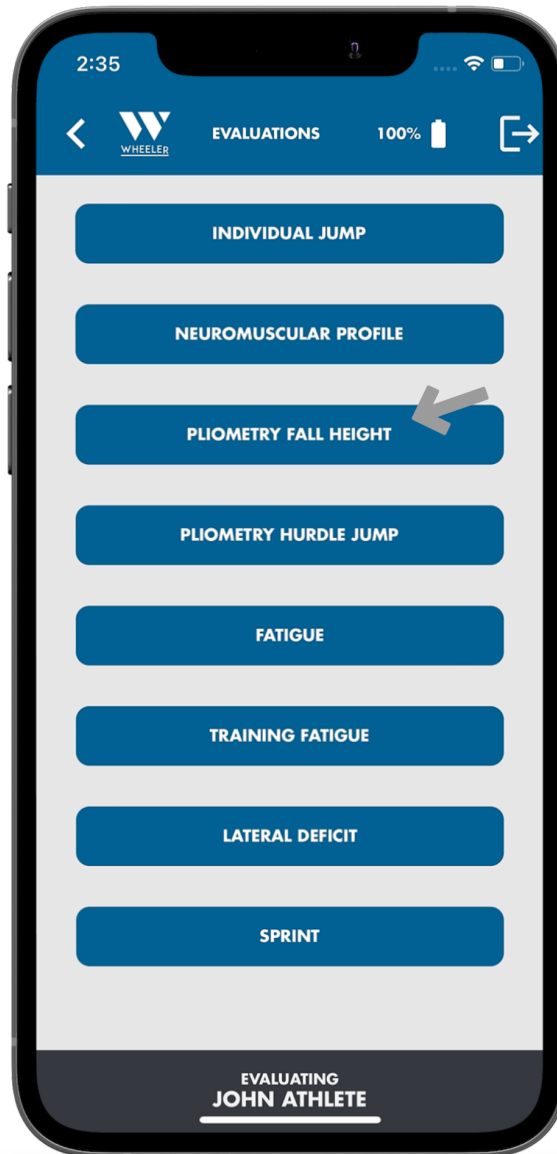


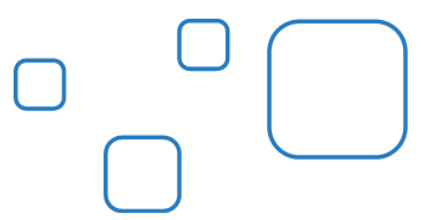
III. Plyometric Drop Jump

The **Plyometric drop jump** test helps the evaluator to find the optimal height for an athlete or patient to perform drop jumps.

A. Test execution

1. To start, choose the test **“Plyometric Drop Jump Height”**

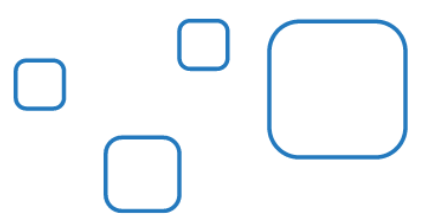




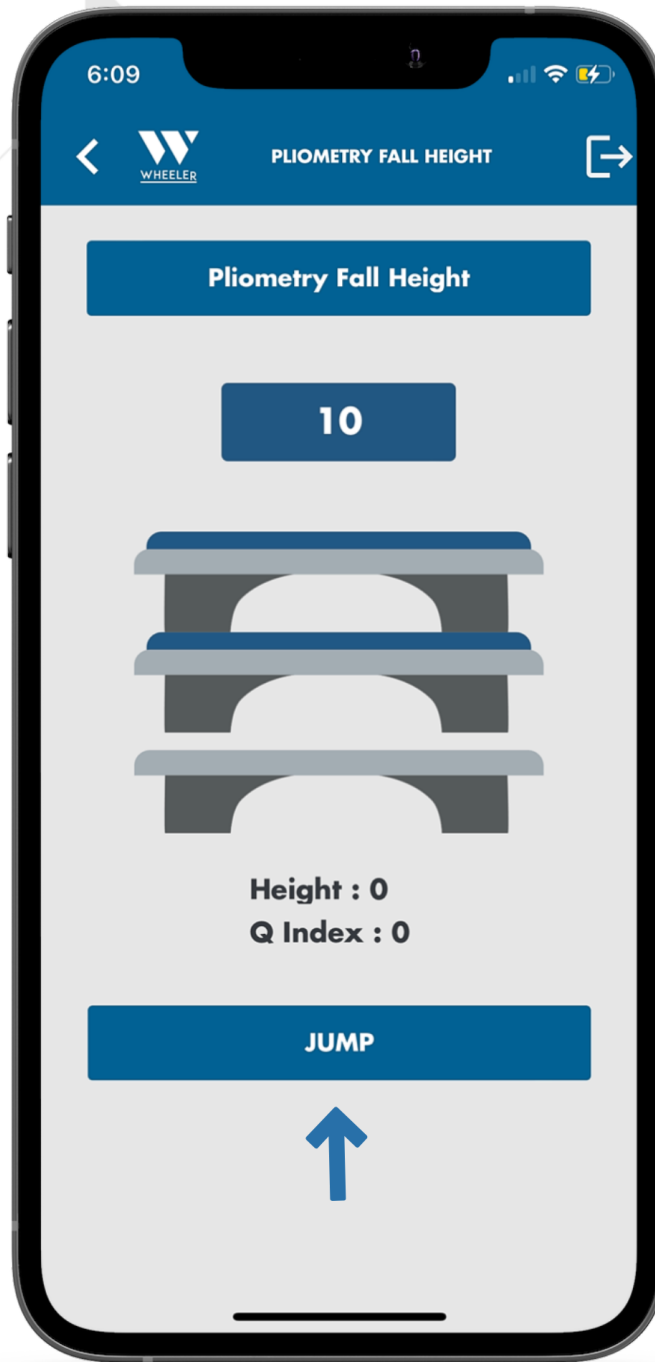
2. Tap on the **height space** to input the first box height.

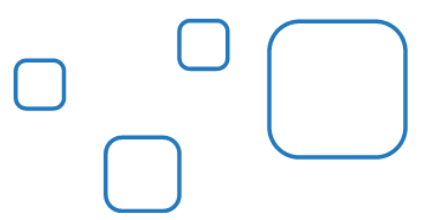
For this example, we will use 10, 20, and 30 cm as the boxes' height.
The first height will be **10 cm**.





3. Once the height has been added, select “Jump”.



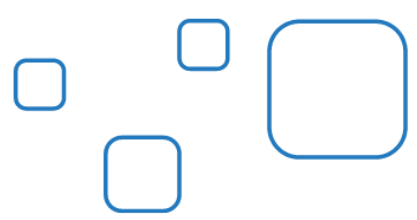


4. After getting the results, type the second height to assess the athlete.

For this example, we will add 20.

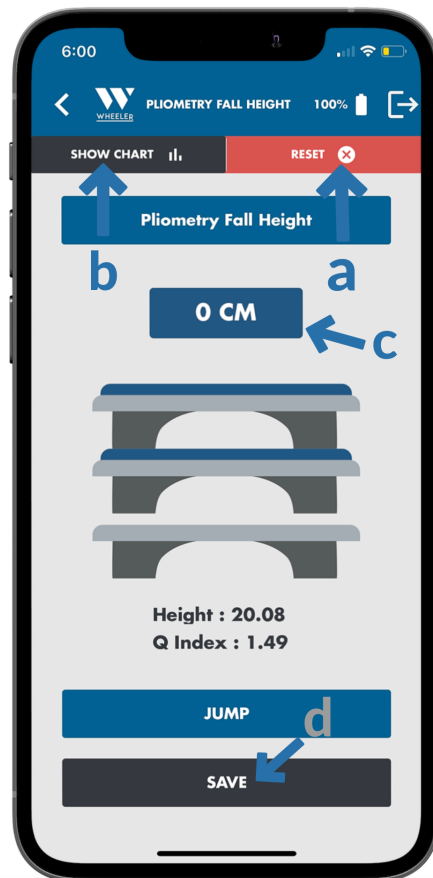
Once the height has already been input, tap on **“Jump”**.

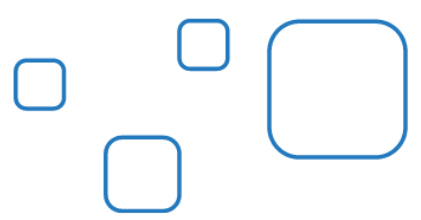




5. After performing 2 or more jumps, multiple options will become available.
 - a. Select “**Reset**” to restart the test from the beginning.
 - b. Select “**Show chart**” to see the graph of the results.
 - c. Select the **height space** to add the next height for assessing a third drop jump.
 - d. Select “**Save**” to save the data on the cloud of the two (2) previously performed jumps.

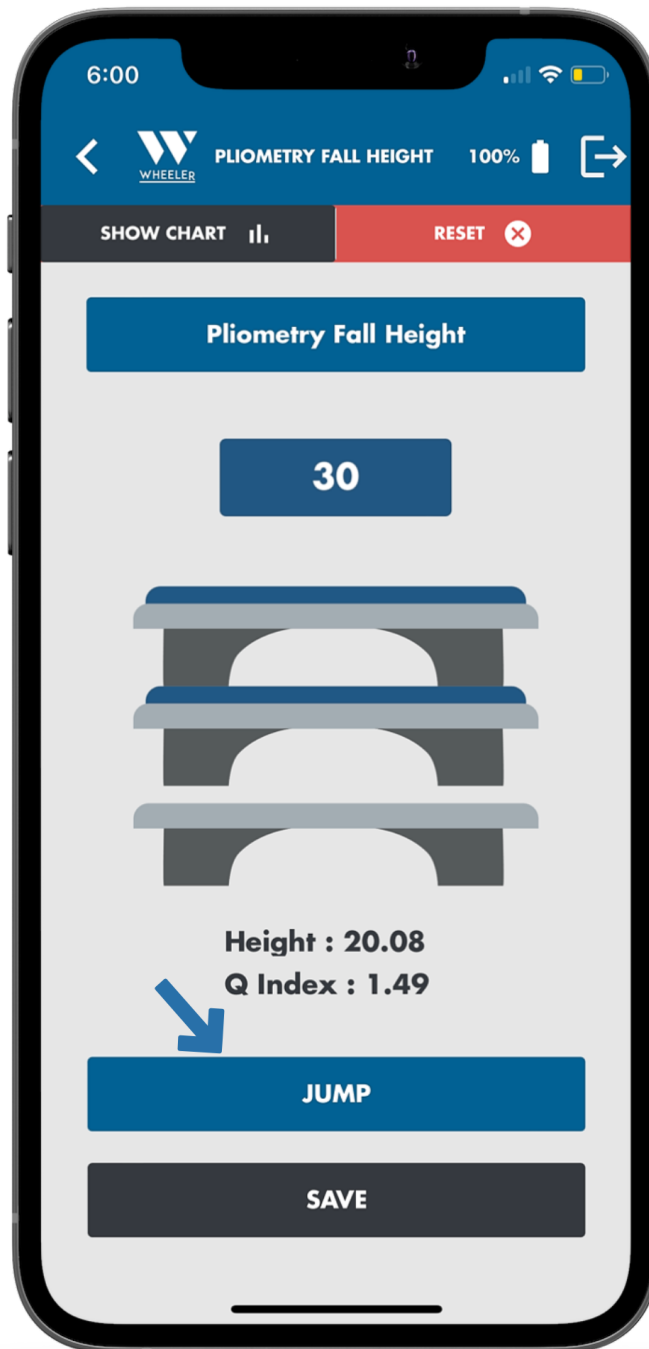
In this example, we will choose a third (3rd) height to compare three (3) different data points.

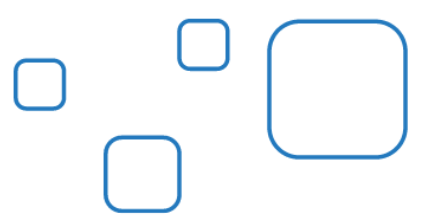




6. After adding the third (3rd) height, select **“Jump”** to initiate the third drop jump.

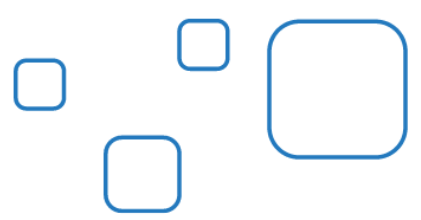
For this example, we will add **30 cm**



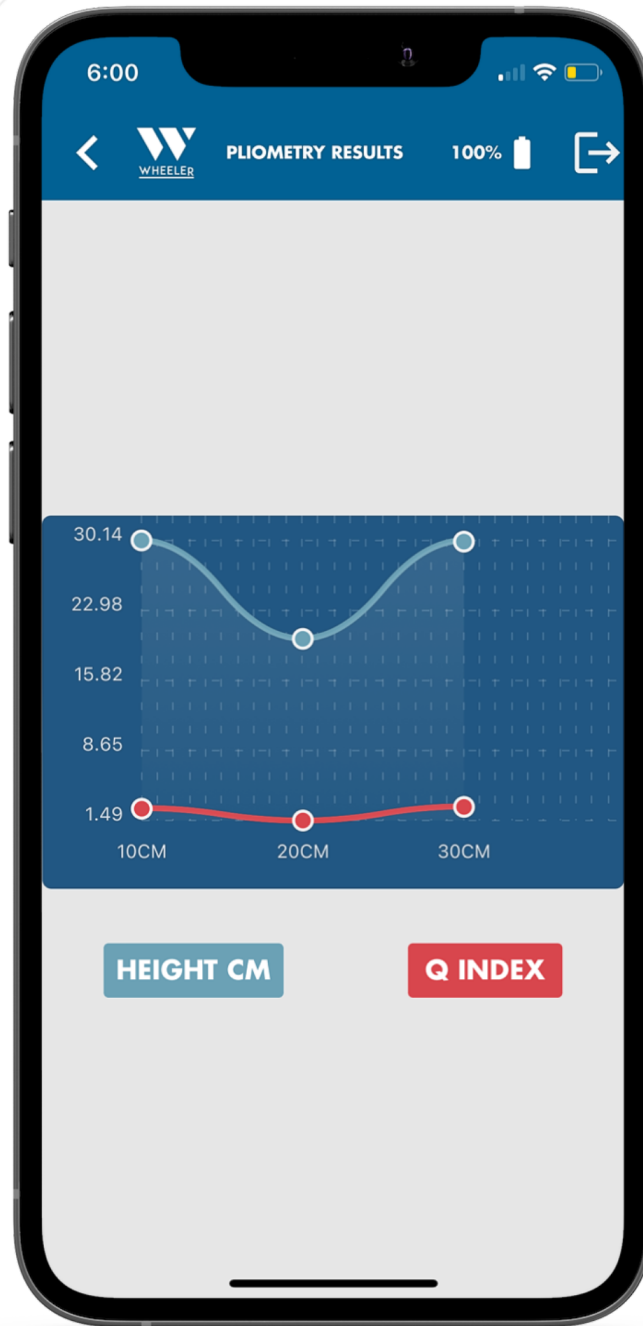


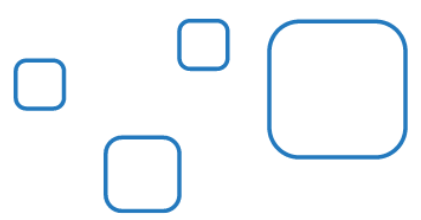
6. After performing the last drop jump, tap on “**Show Graph**” to see the results.



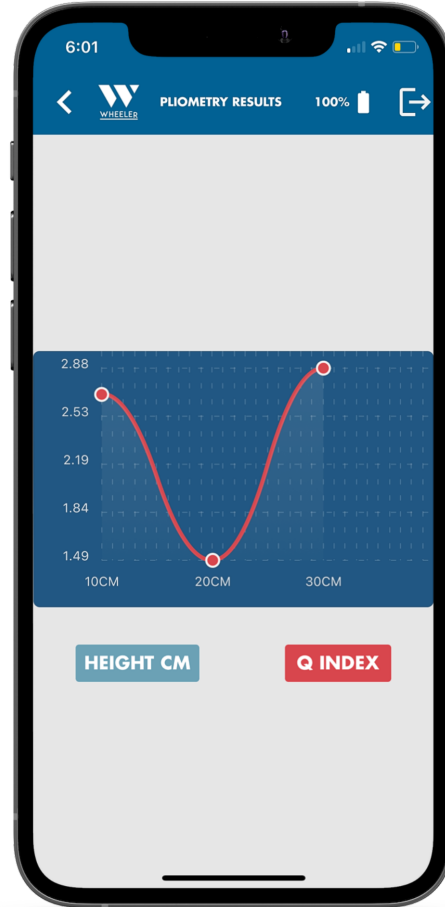
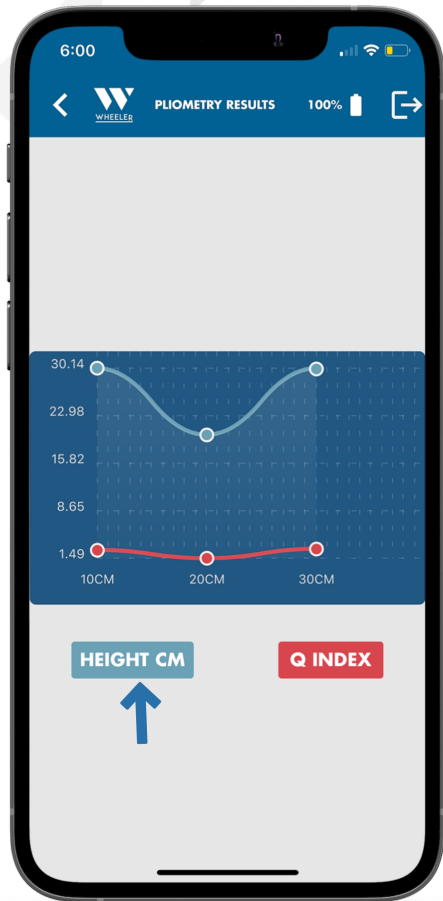


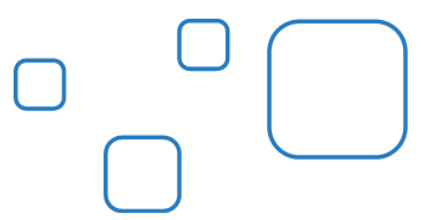
7. The graph interface will show the **Height** and the **Q index** developed by the athletes on the jumps performed. In this case, 3 jumps were performed, so our curve will have three (3) different dots for **Q index** and **height**.



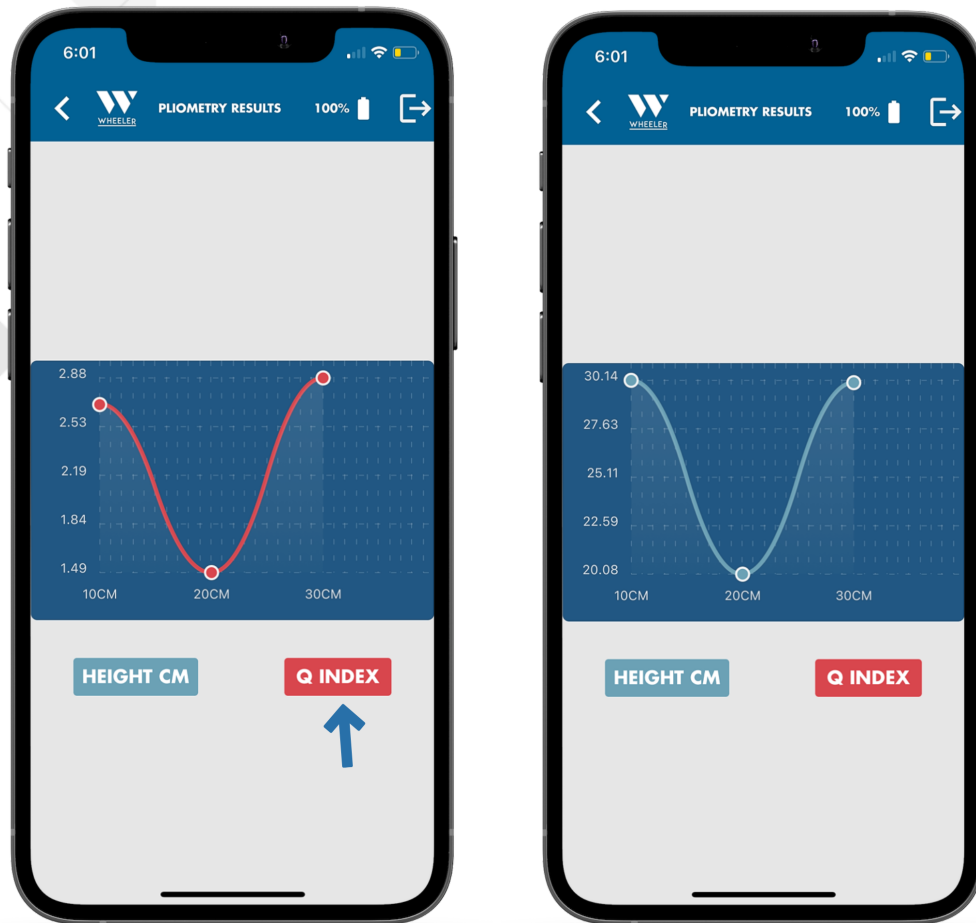



8. Because of the scale, it is clearer to see one curve at a time. To hide a curve, tap on its name. In this case, we will hide the “**Height cm**”



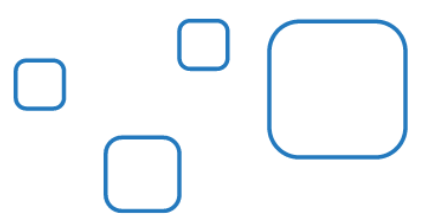


9. The opposite can be done by tapping on the “Q index” button to hide the red curve.



10. To return to all the assessments, tap on  in the top left corner.



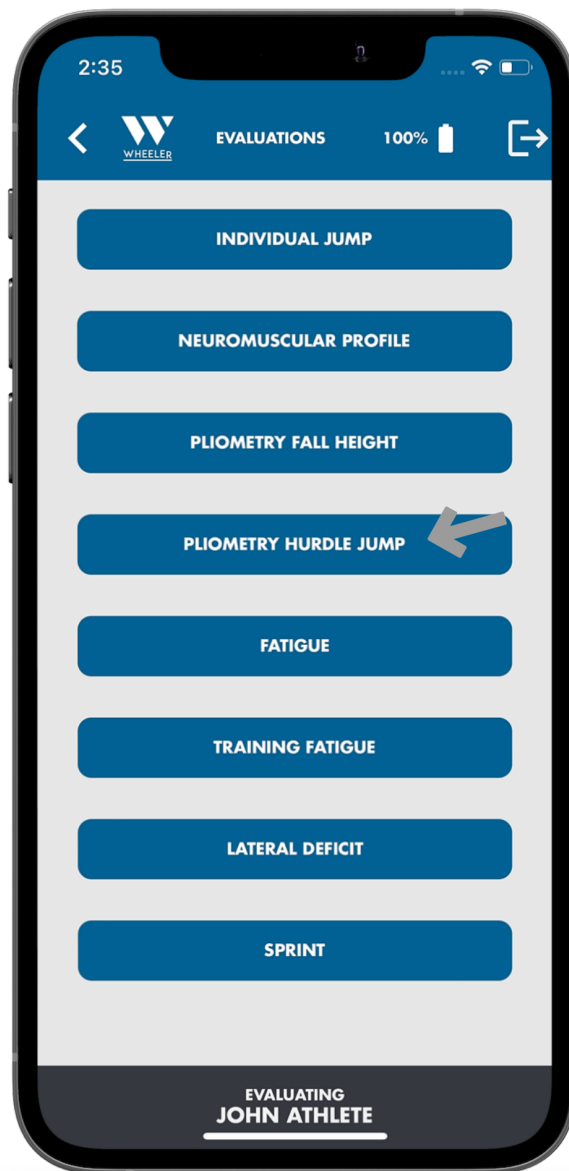


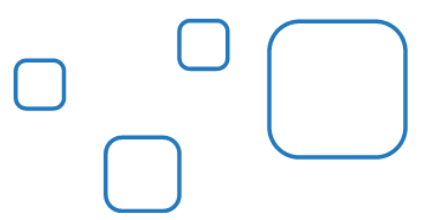
IV. Plyometric Hurdle Height

The Plyometric Hurdle Height assessment allows you to find the optimal height an athlete needs to develop their best reactivity when performing plyometrics with hurdles.

A. Assessment Execution

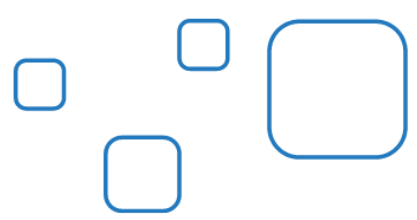
1. To start, tap on “**Plyometric Hurdle Height**”



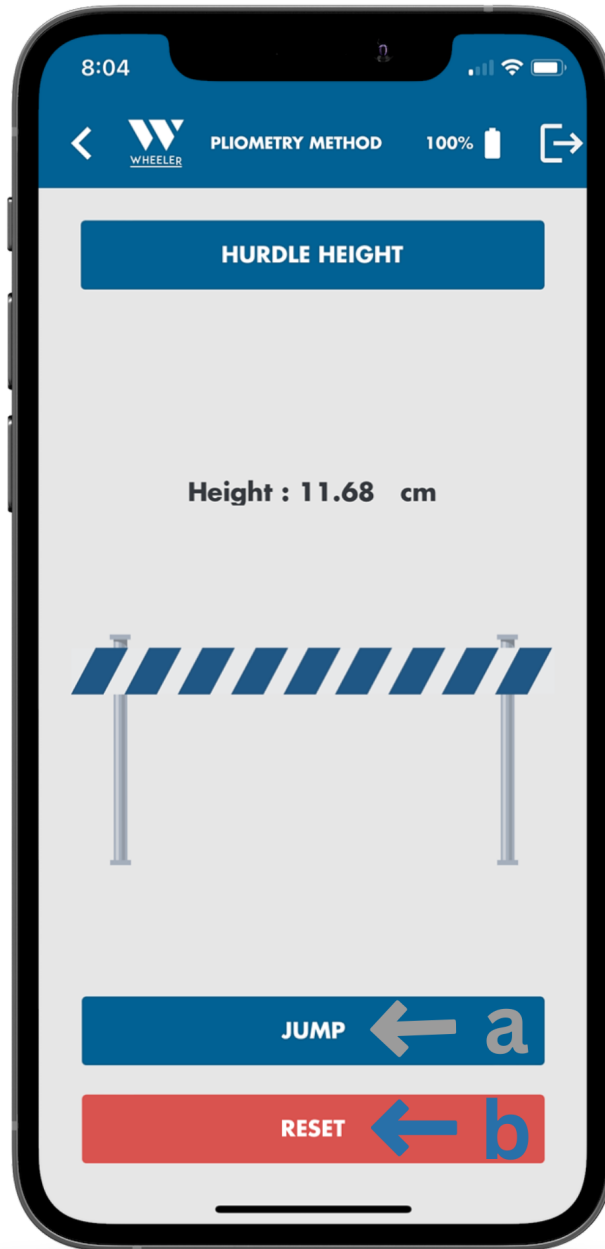


2. Once the athlete is located in the Jumping area, tap on “Jump”



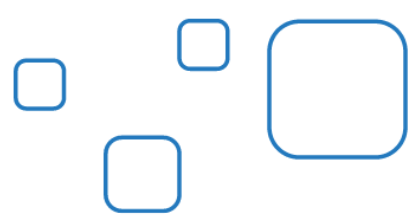


3. After 5 seconds of continuous jumps, the test will yield results. Two (2) options will become available.
 - a. Tap on “**Jump**” to re-assess.
 - b. Tap on “**Reset**” to restart the test from 0.



4. To return to the main menu of assessments, tap on <



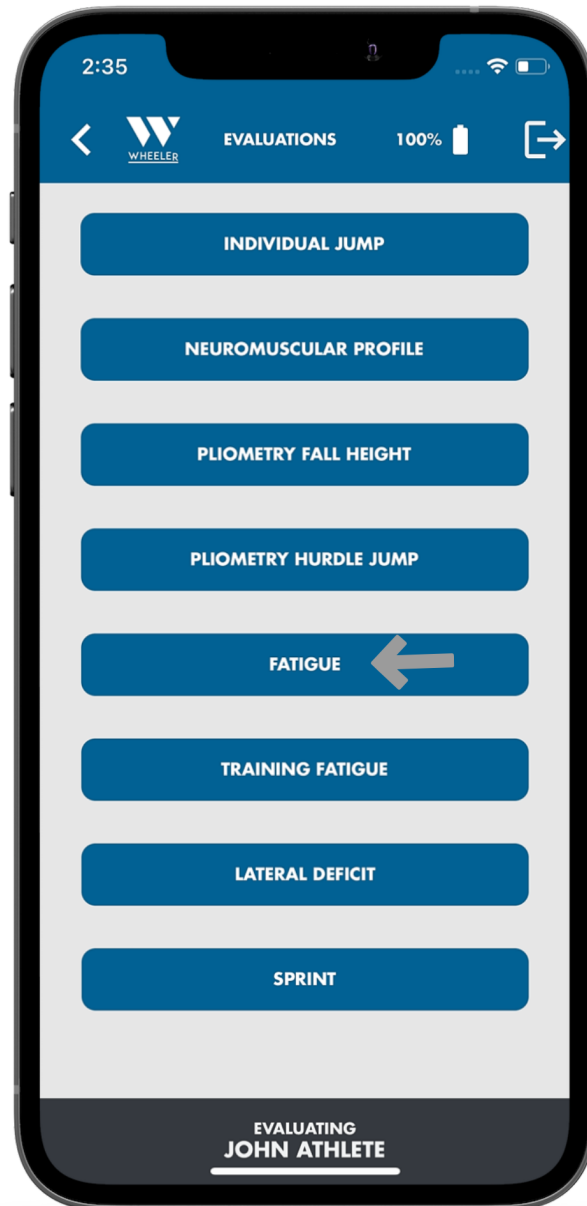


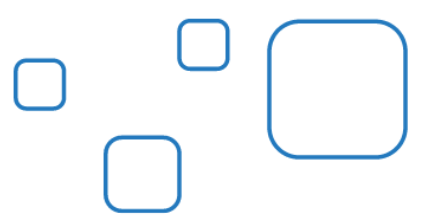
V. Neuromuscular Fatigue

The neuromuscular fatigue test allows the evaluator to assess the fatigue of an athlete after a competition or a long game.

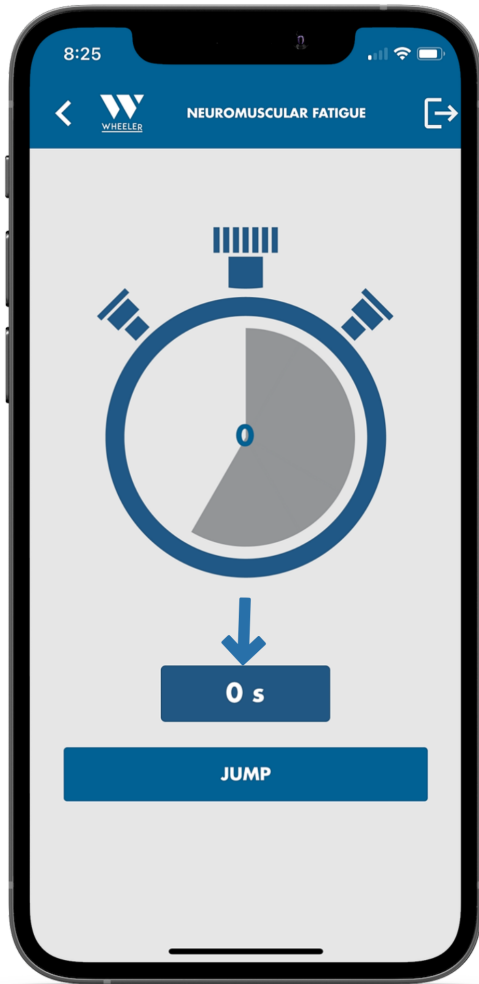
A. Assessment Execution

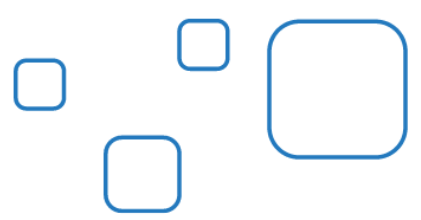
1. To start, choose the “**Neuromuscular fatigue**” assessment.



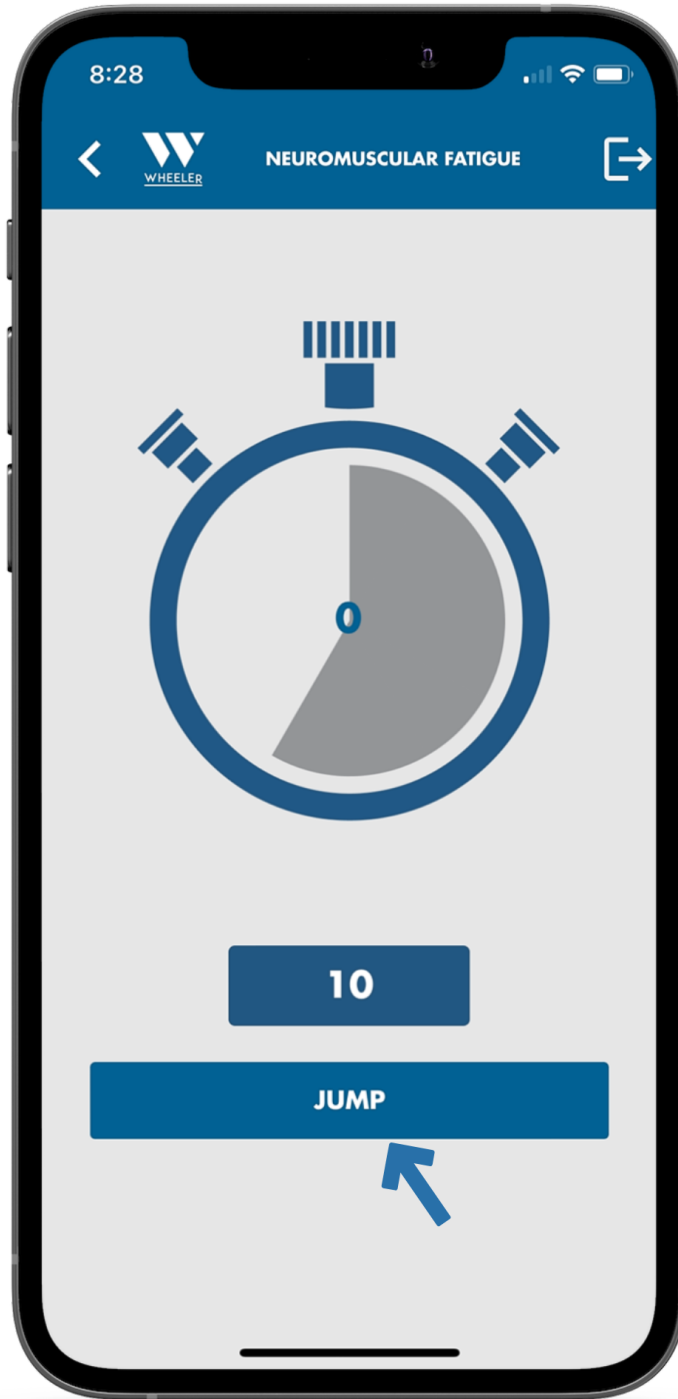


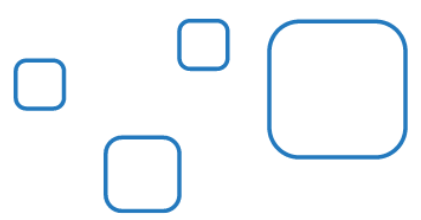
2. Tap on the space for **Time** to add the time needed to complete the assessment.



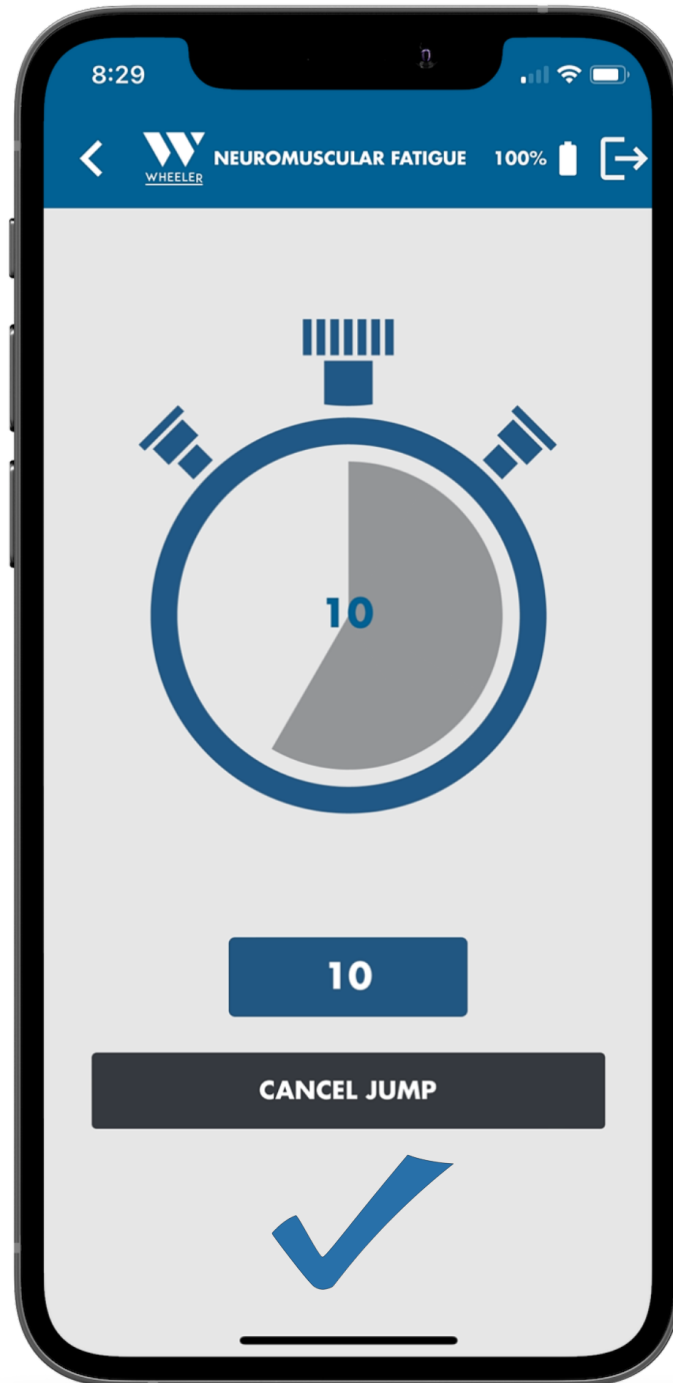


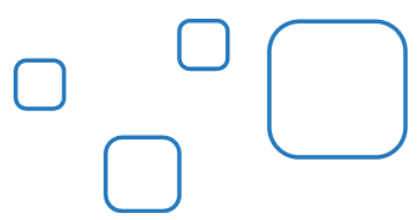
3. Tap on “Jump” to start the assessment.





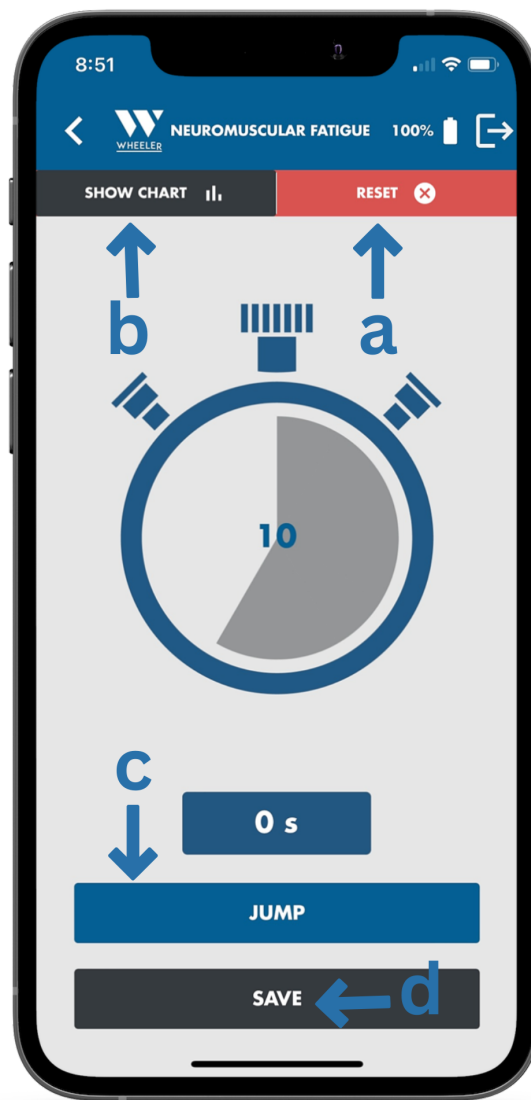
4. The following screen means that the assessment is currently happening.

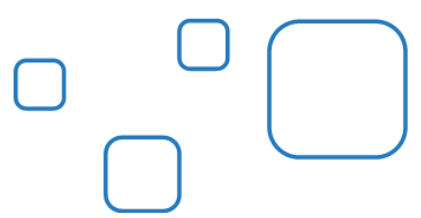




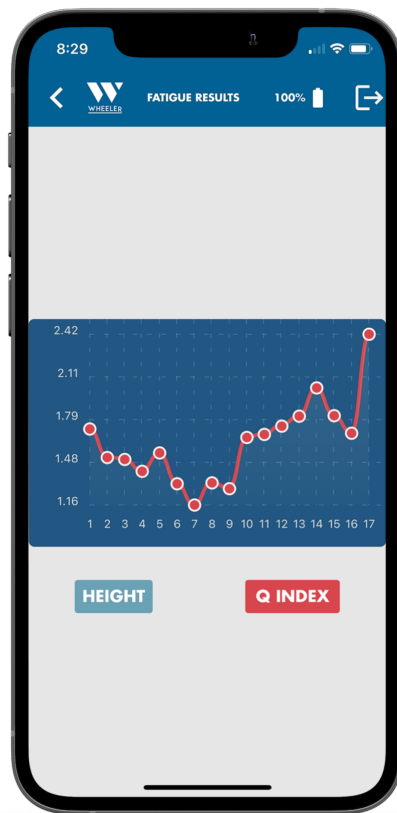
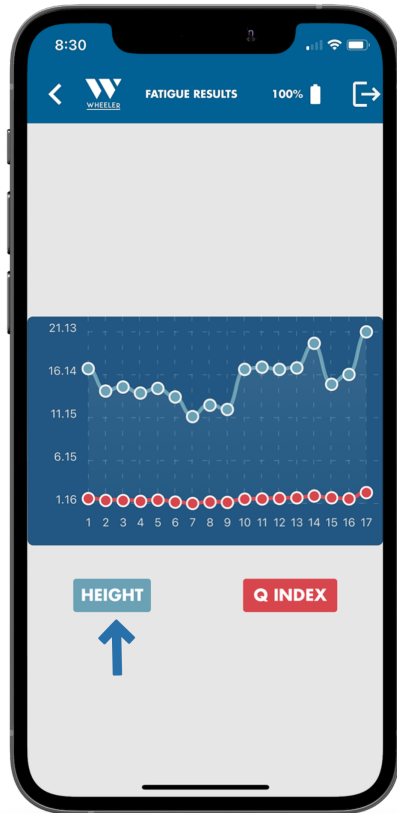
5. Once the assessment is completed, the following options will become available.
 - a. Tap on “**Reset**” to restart the assessment from the beginning.
 - b. Tap on “**Show chart**” to see the results on a graph.
 - c. Tap on “**Jump**” to do a second assessment.
 - d. Tap on “**Save**” to save the data on the cloud.

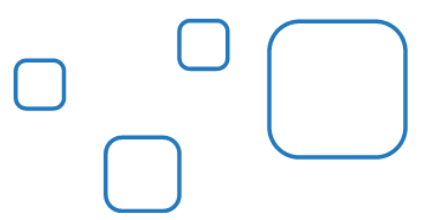
For this example, we will tap on “**Show chart**”



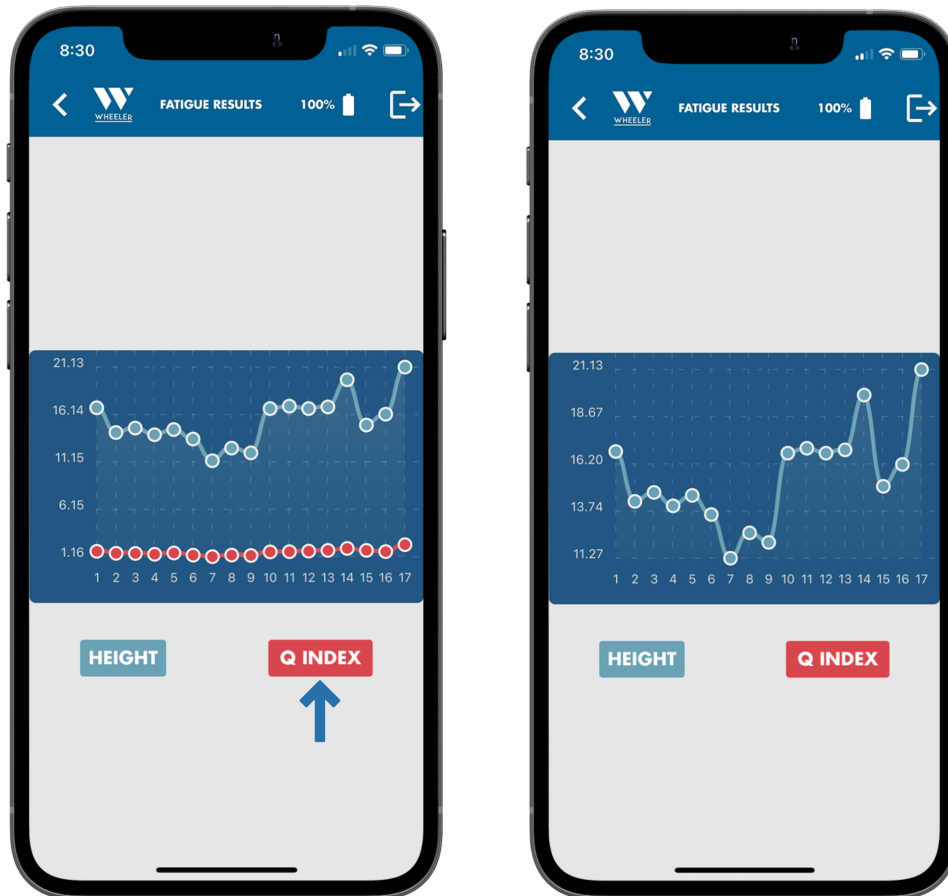


6. Because of the scale, it is clearer to see only one curve at a time. To hide a curve, tap on its name. In this case, we will hide the “**Height**” curve.



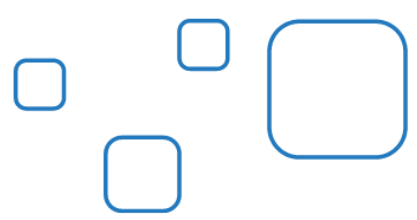


7. The opposite can be done by tapping on “Q index” to hide it to see only the height.



8. To return to the main menu, tap on "<" in the top left corner.



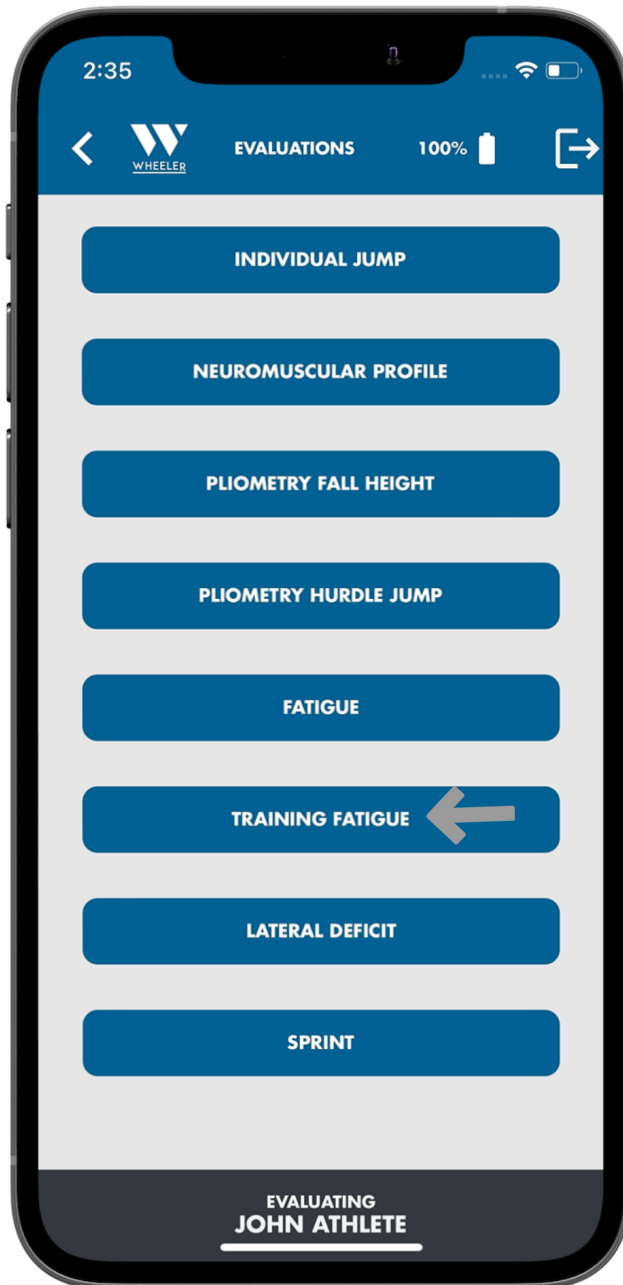


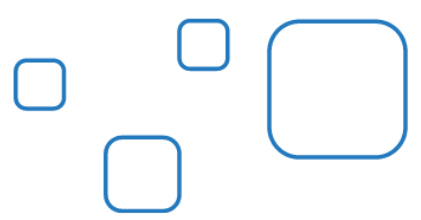
VI. Training Fatigue

The training fatigue test allows the trainer to assess how fatigued the athlete or patient is after a training or rehabilitation session.

A. Assessment Execution

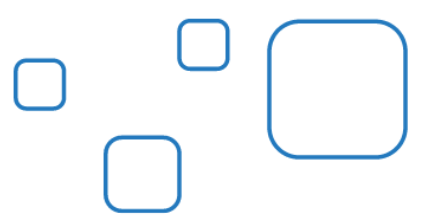
1. To start, choose the test “**Training fatigue**”





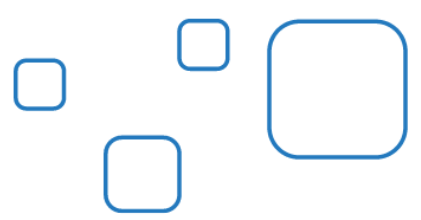
2. Once on the assessment interface, locate the athlete in the jumping area and tap on **“Pre-Training”** to choose the first jump.





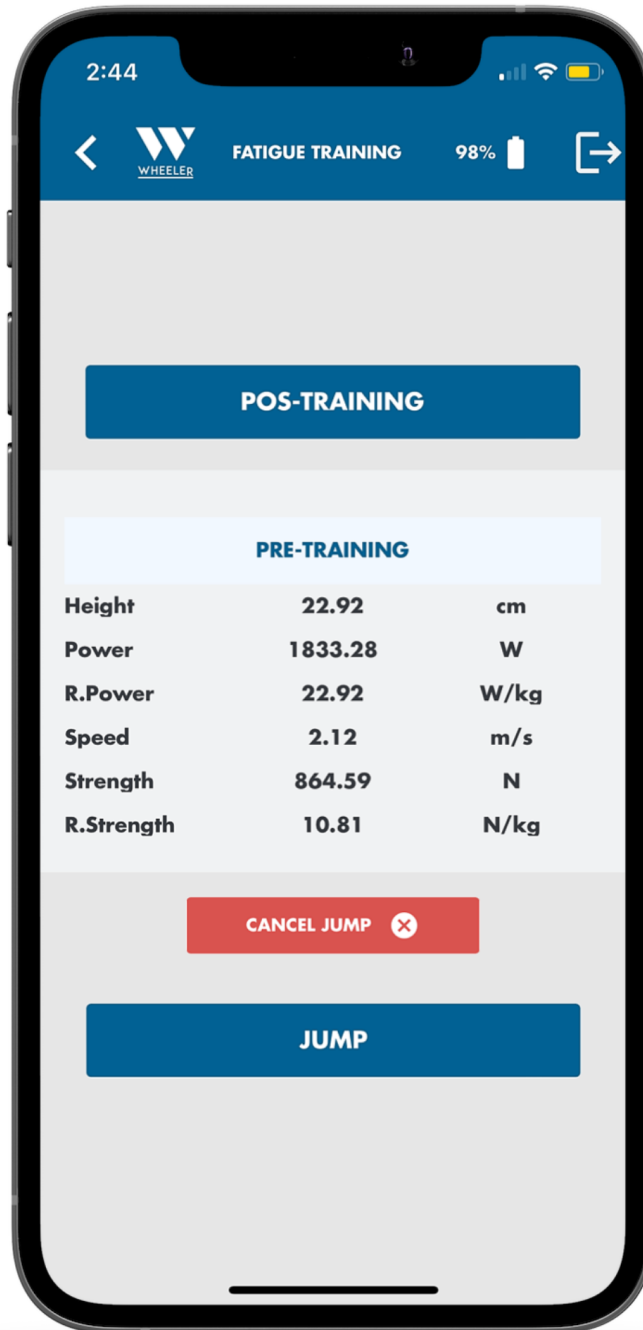
3. Tap on “**Jump**” to initiate the assessment. The athlete will have to perform a **CMJ (Counter Movement Jump)**

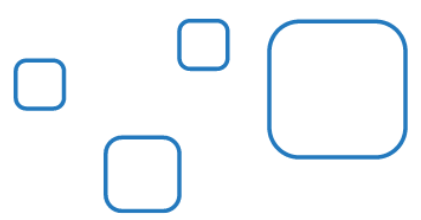




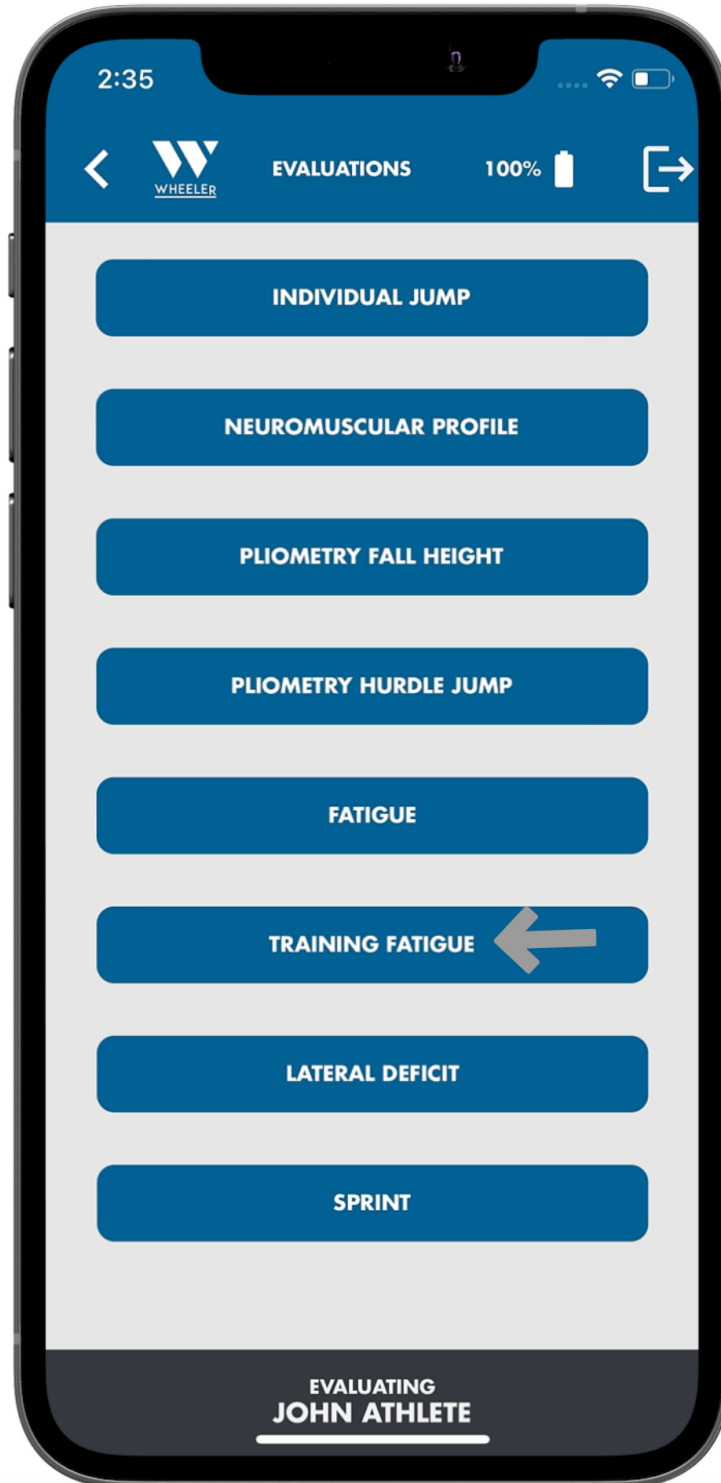
4. After the **Pre-Training** test, you can close the app and perform a training session; or go into another assessment.

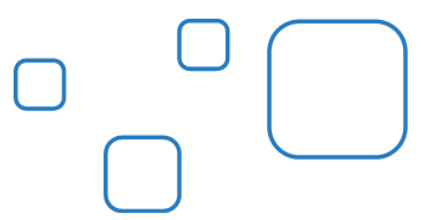
The **Training fatigue** test will stay active until you open it again.



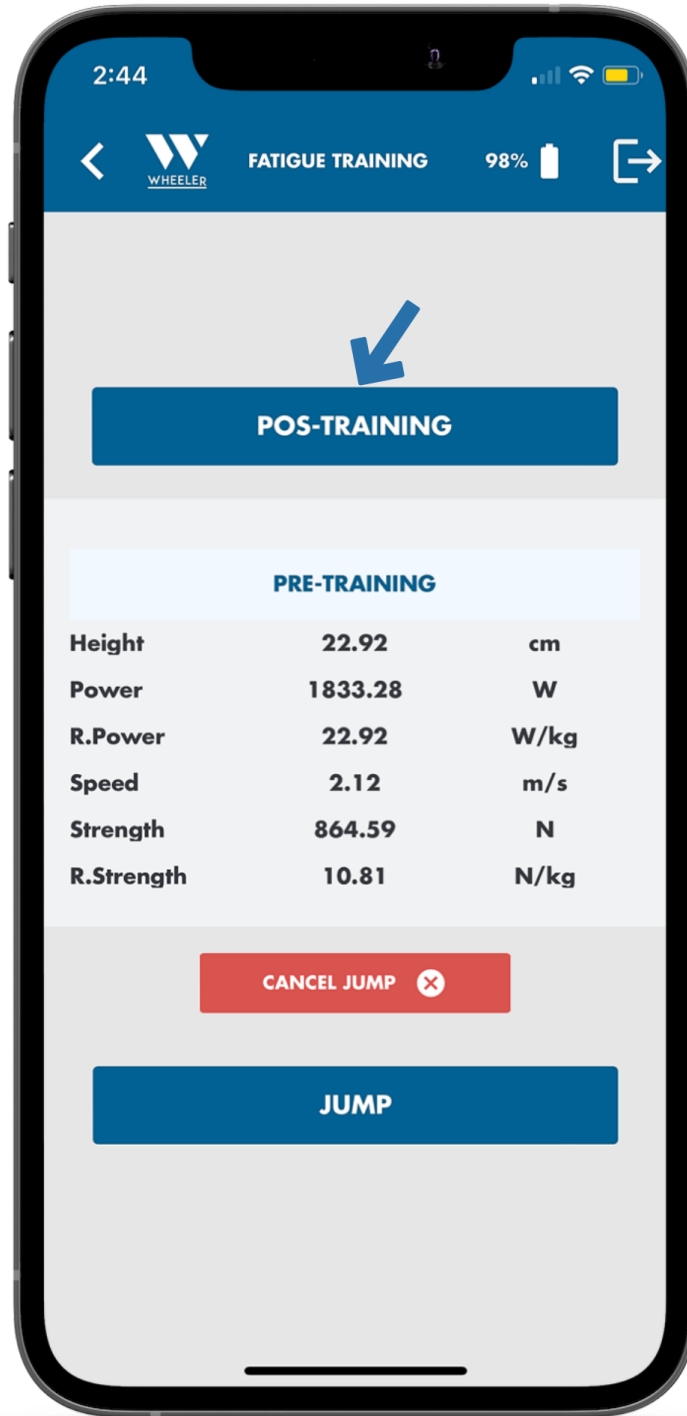


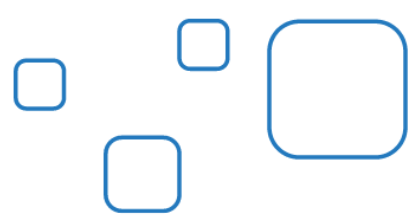
5. After finishing the training session, open the **Training Fatigue** test again.





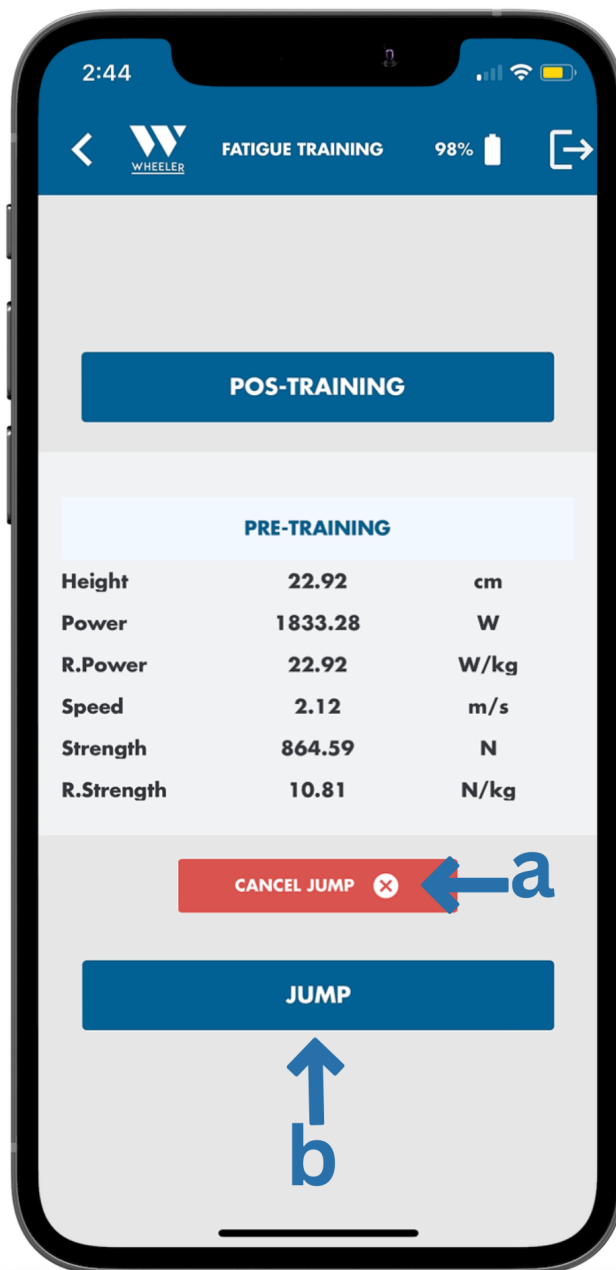
6. Tap on “**Post-Training**” to choose the post-training countermovement jump.

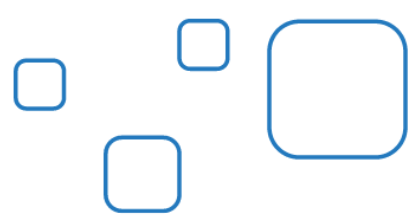




7. Two (2) options will be available once you select the second countermovement jump.
 - a. Tap on “**Cancel Jump**” to cancel the test
 - b. Tap on “**Jump**” to initiate the post-training countermovement jump

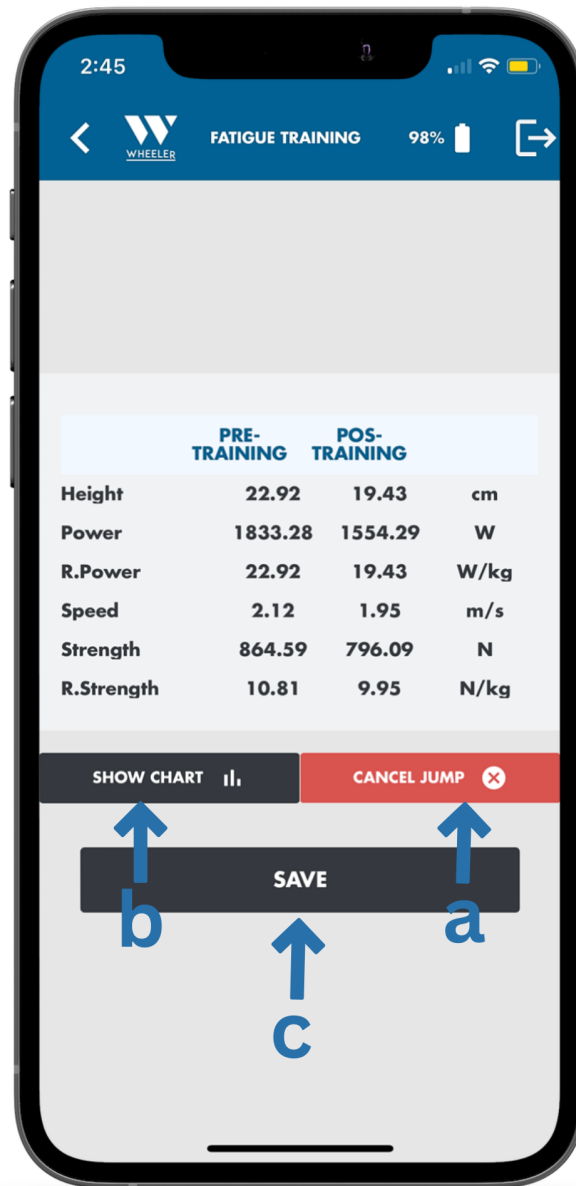
For this example, we will choose “**Jump**”.

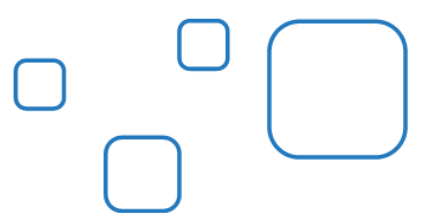




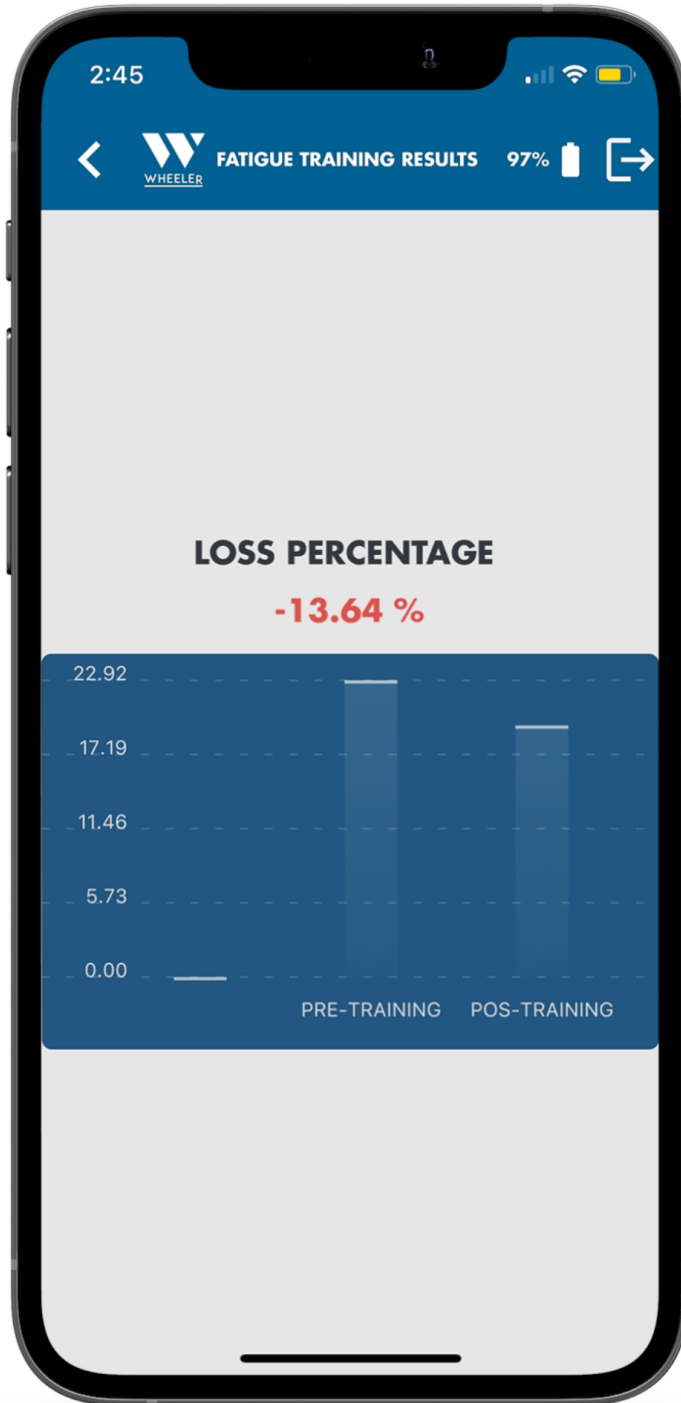
8. After performing the **Post-training** test, 3 options will become available:
 - a. Tap on “**Cancel Jump**” to cancel the test
 - b. Tap on “**Show Graph**” to show the graph
 - c. Tap on “**Save**” to save the assessment on the cloud.

For this example, we will choose **Show Graph**.



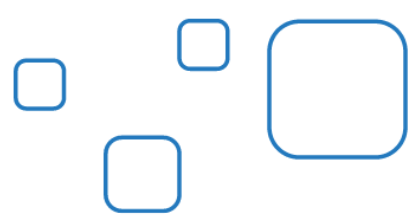


9. On the following screen, both jumps will be compared for interpretation.



10. To return to the main menu of assessments, tap on “<”.



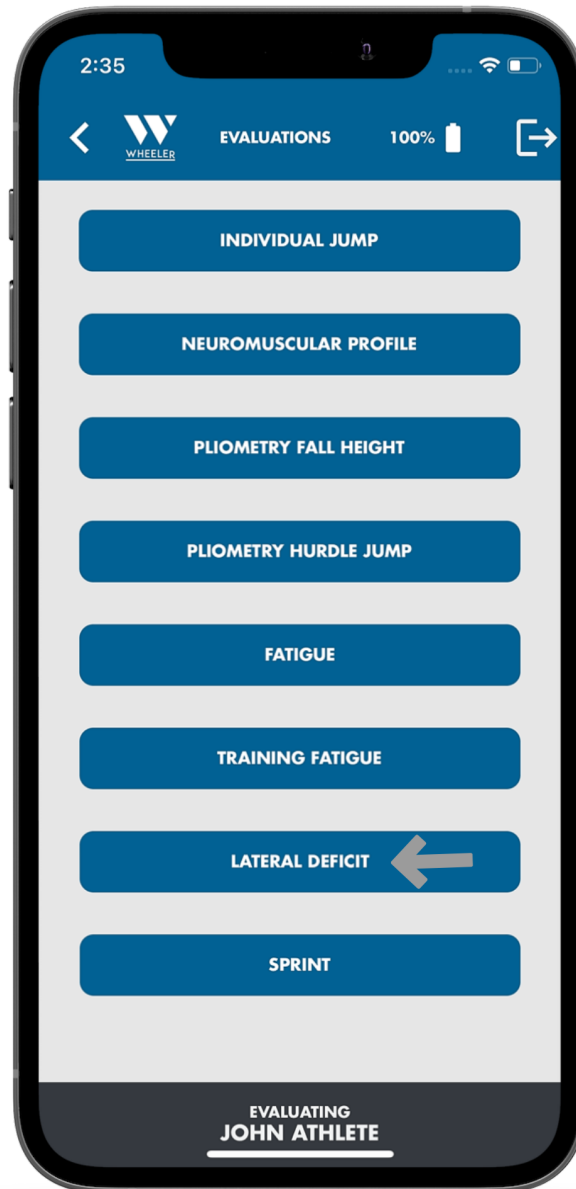


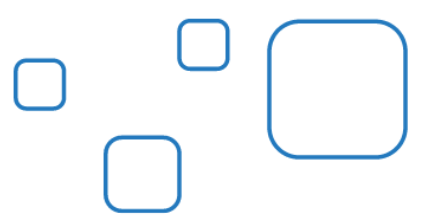
VII. Lateral deficit

The lateral deficit test allows the evaluator to assess the **Neuromuscular Profile** for each leg and find deficits between legs.

A. Assessment Execution

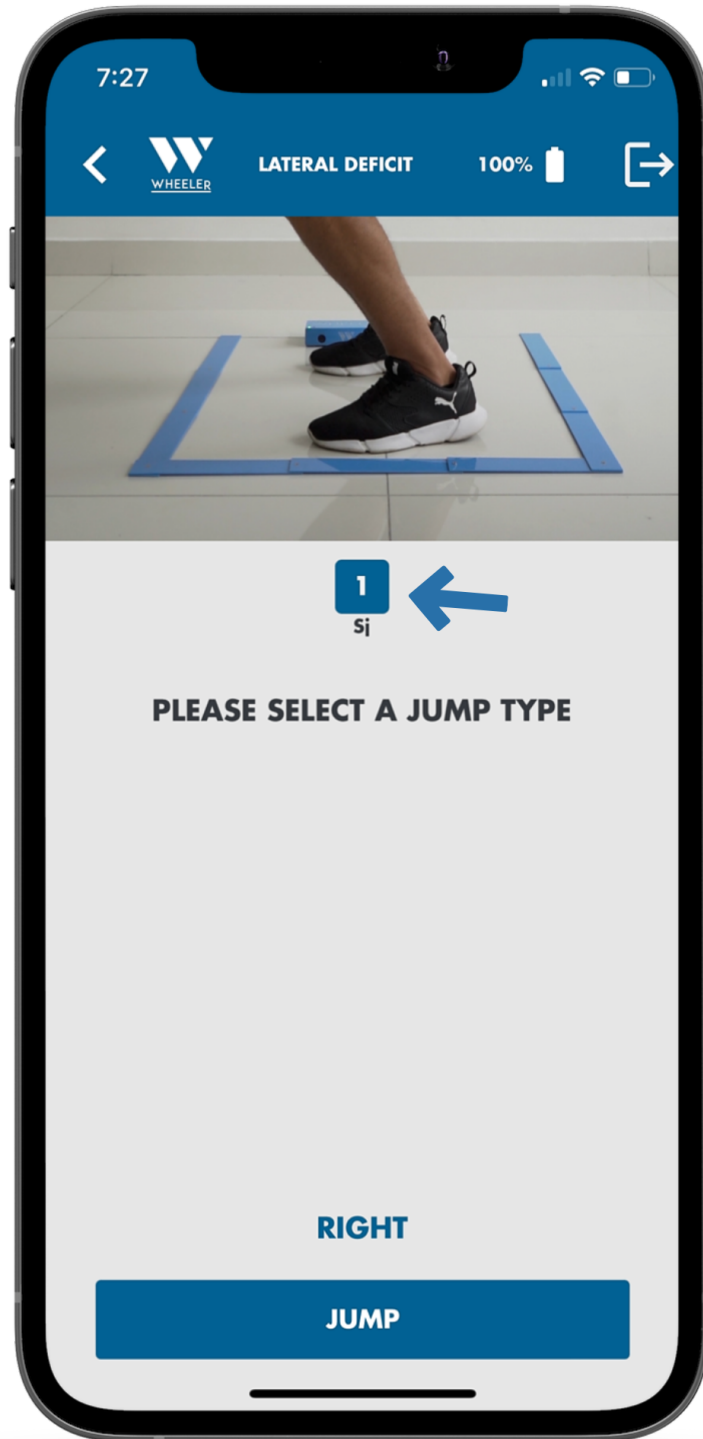
1. To start, select the “**Lateral deficit**” test.

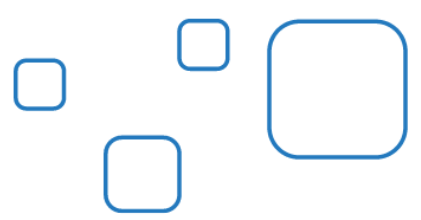




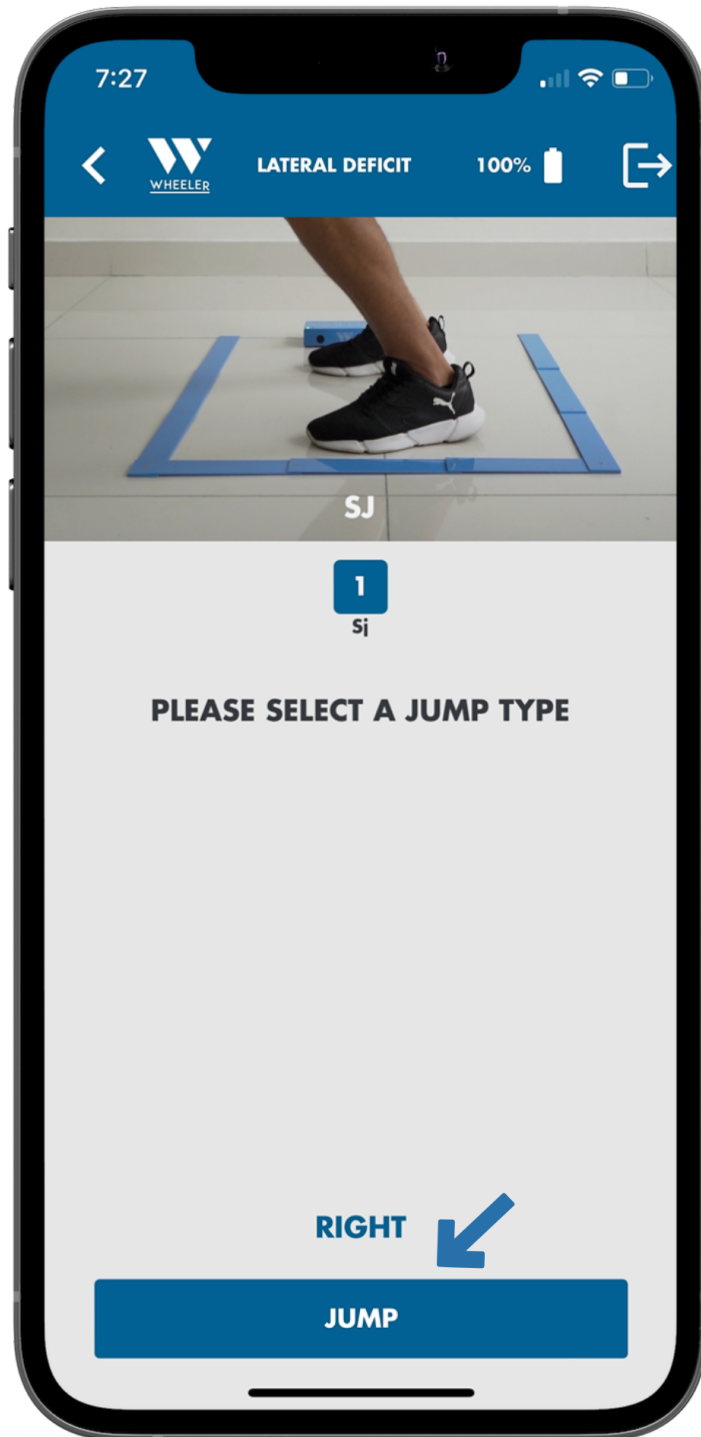
2. The assessment will start always with the **Right Leg**.

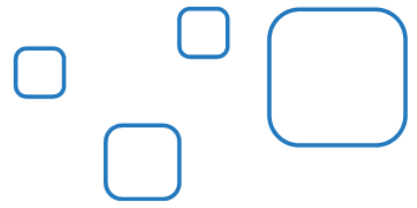
On the assessment interface, select the jump “SJ”(Squat Jump).



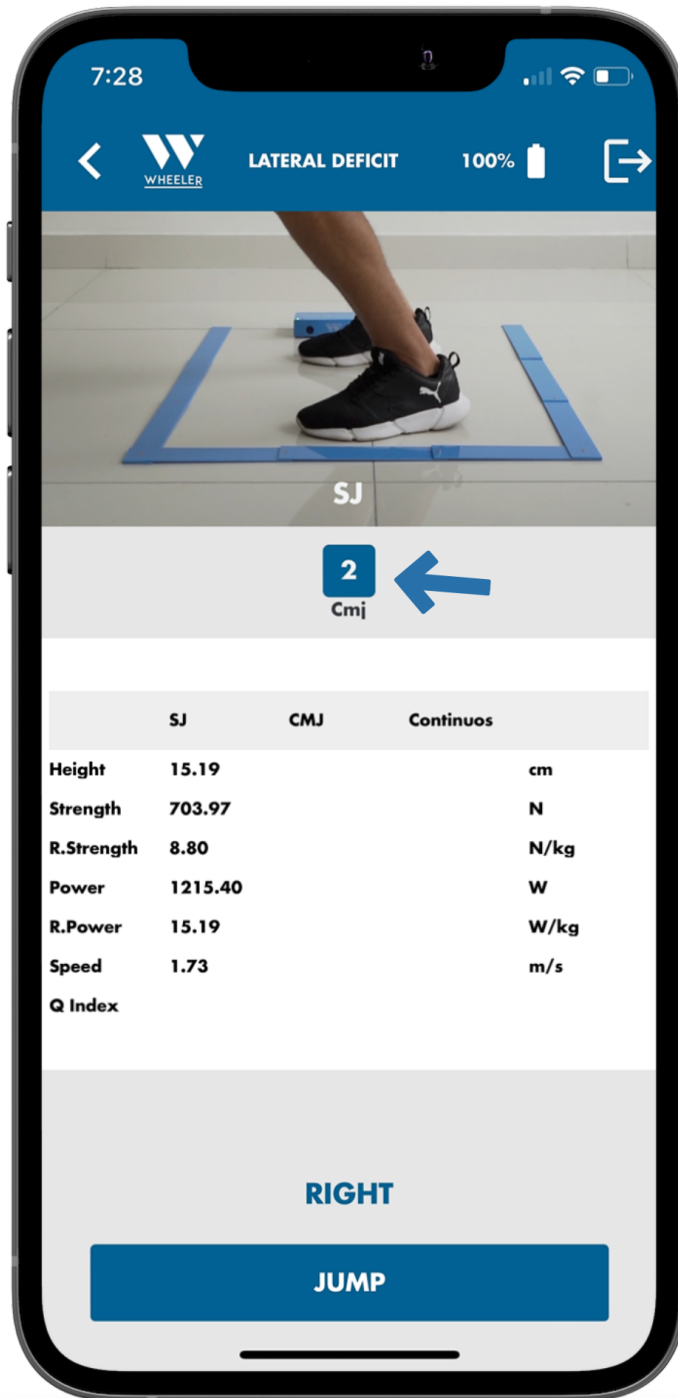


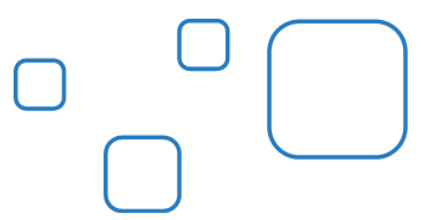
3. The title of the jump will appear on the top of the screen in white. Locate the athlete in the jumping area and tap “Jump”.



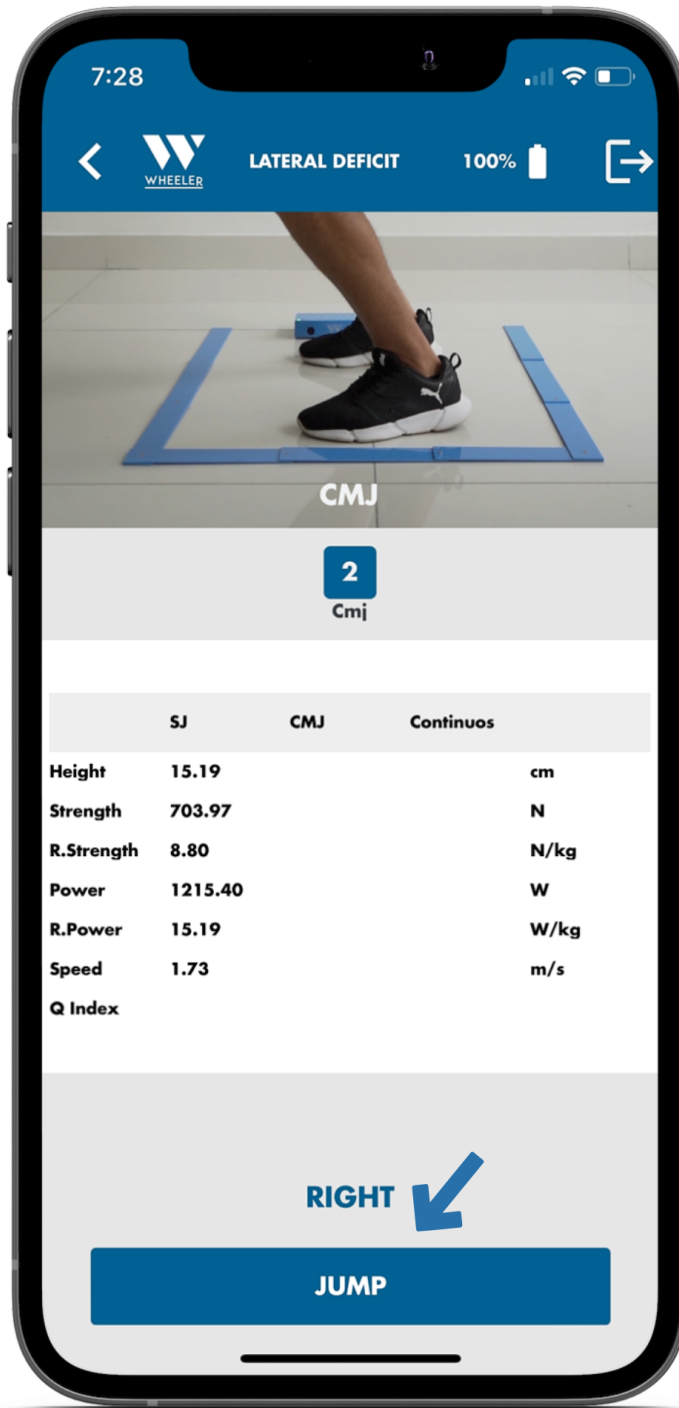


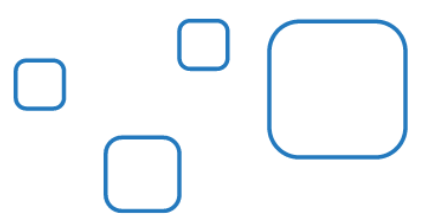
4. After the **SJ**, select “**CMJ**” (Counter Movement Jump) to select the next jump.



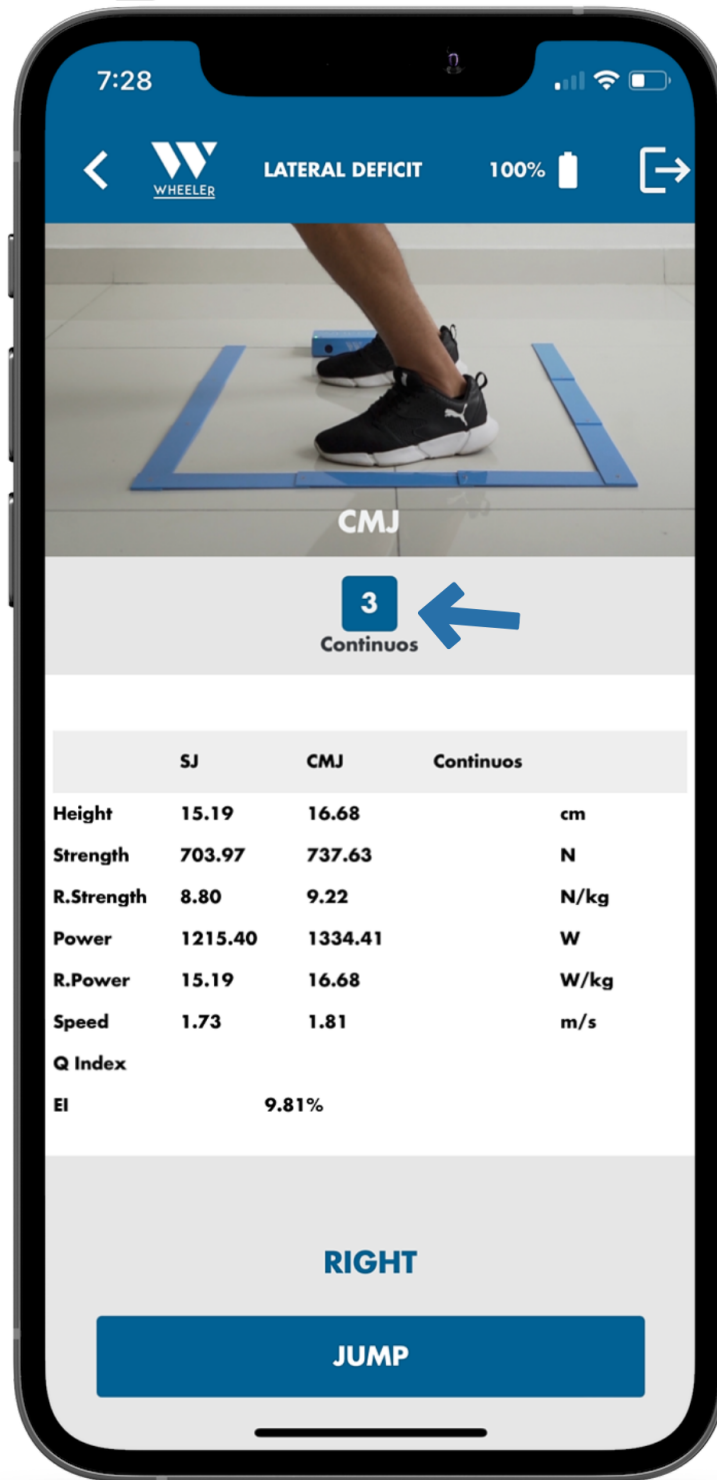


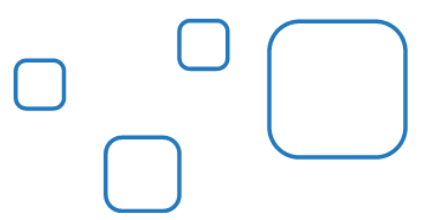
5. The title of the jump will appear on the top of the screen in white. Locate the athlete in the jumping area and select “Jump”.



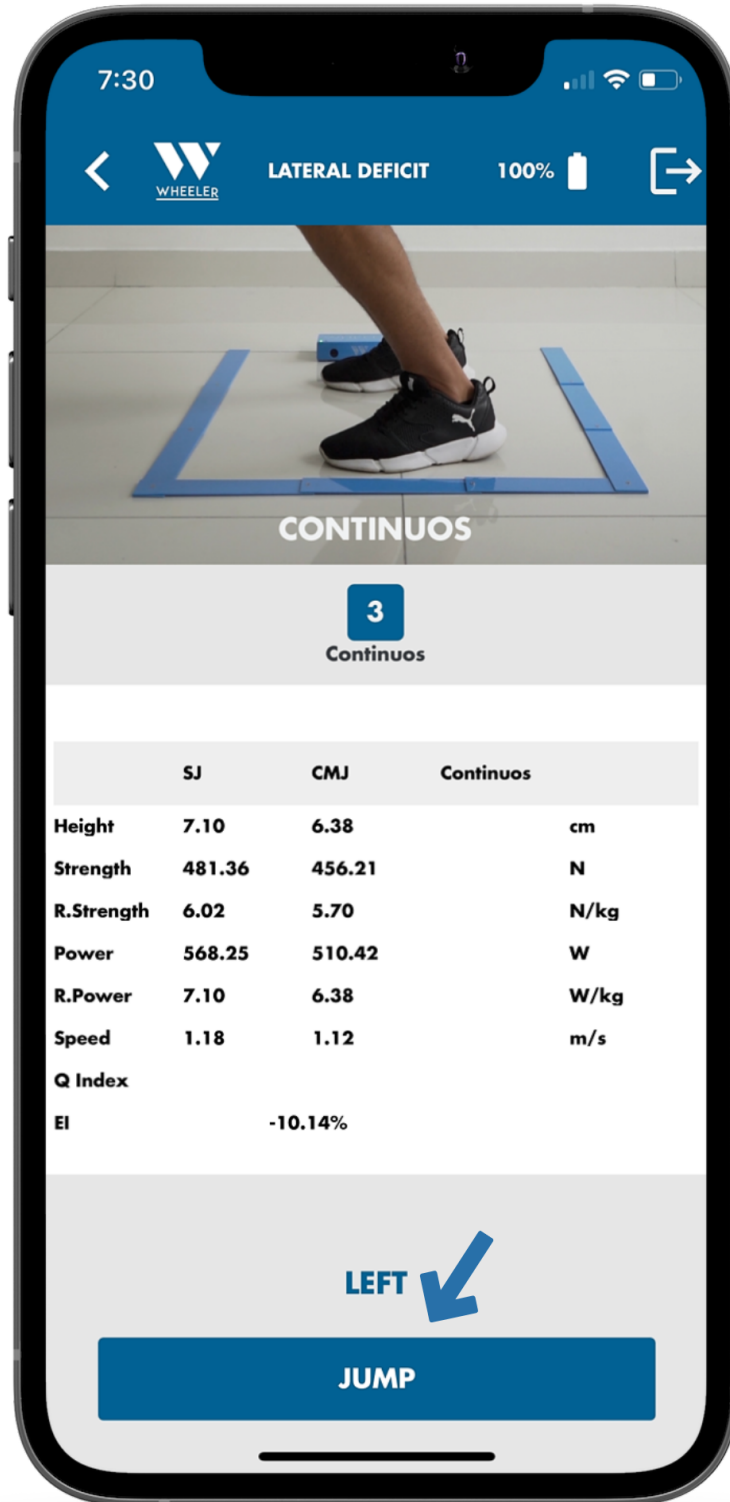


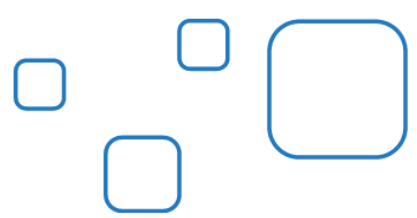
6. After the **CMJ**, tap on “**Continuous**” to select the next jump.





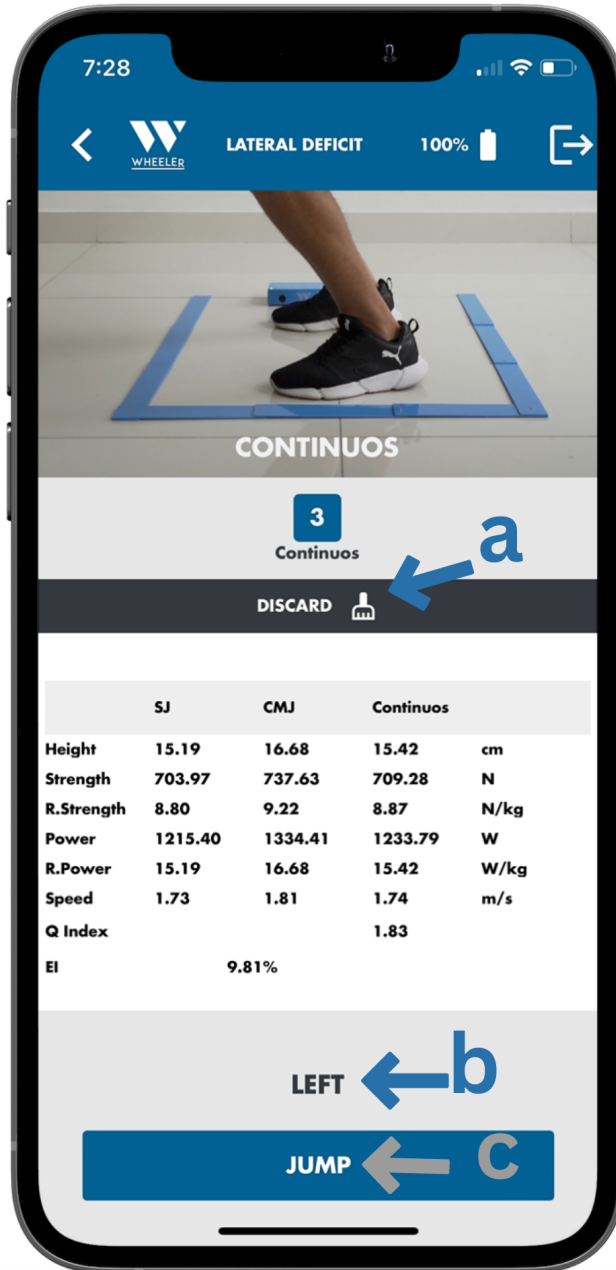
6. The title of the jump will appear on the top of the screen in white. Locate the athlete in the jumping area and tap “Jump”.

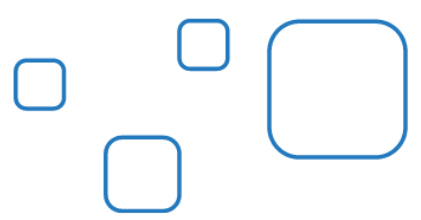




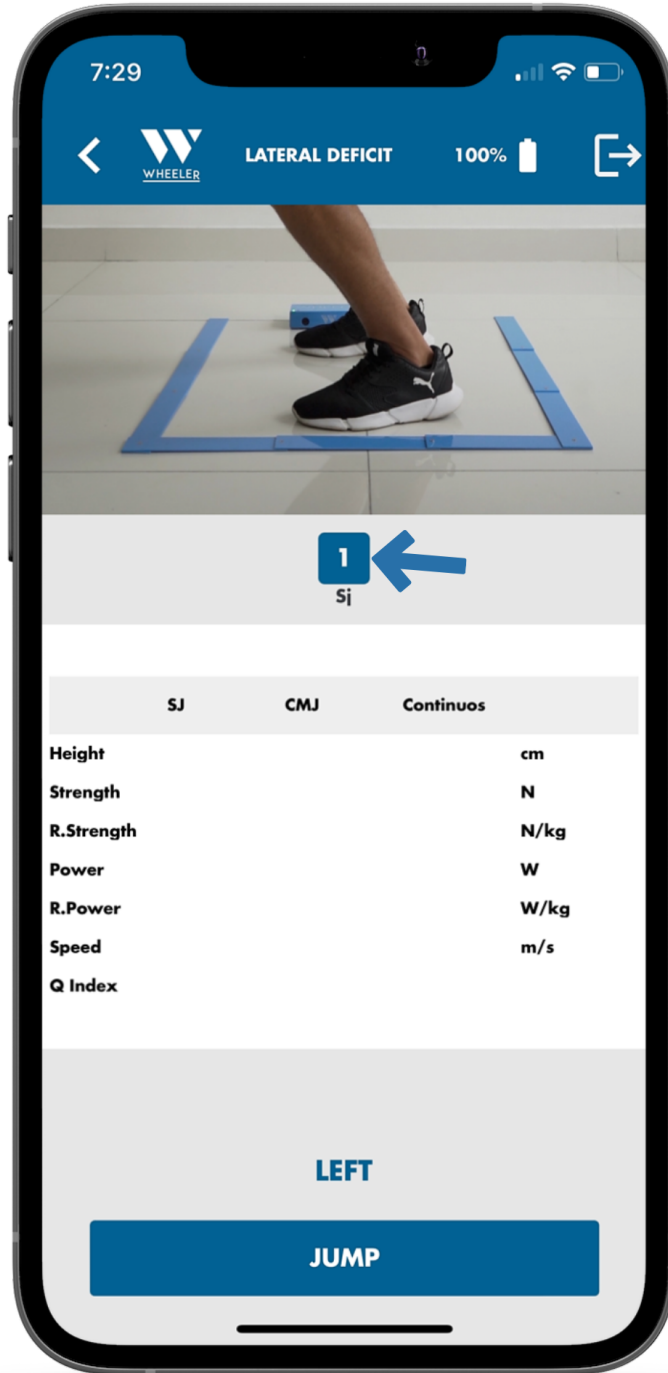
7. After the **Continuous** jumps, multiple options will become available:
- a. Tap on “**Discard**” to discard this test.
 - b. Tap on “**Left**” to continue the testing on the left leg.
 - c. Tap on “**Jump**” to repeat the last jump.

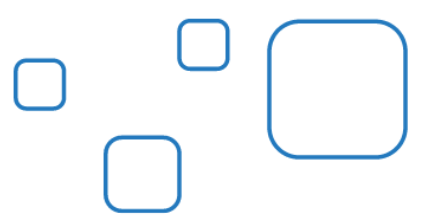
For this example, we will choose “**Left**” to continue with the assessment.



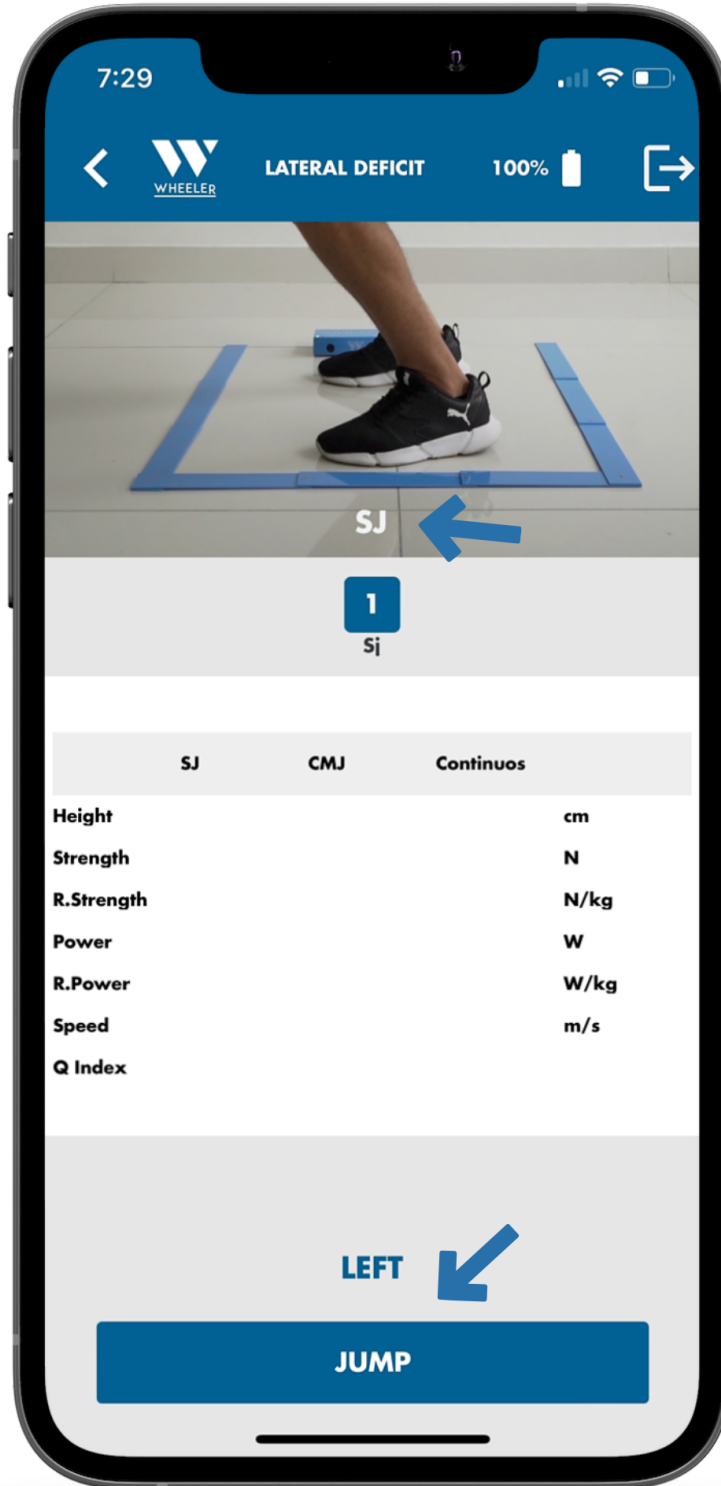


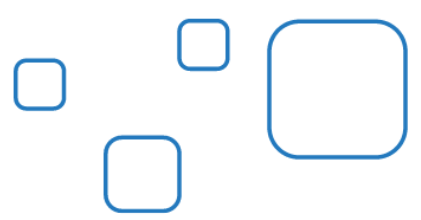
8. After selecting **Left**, the next jump will appear. Tap on “**SJ**” to select the jump.



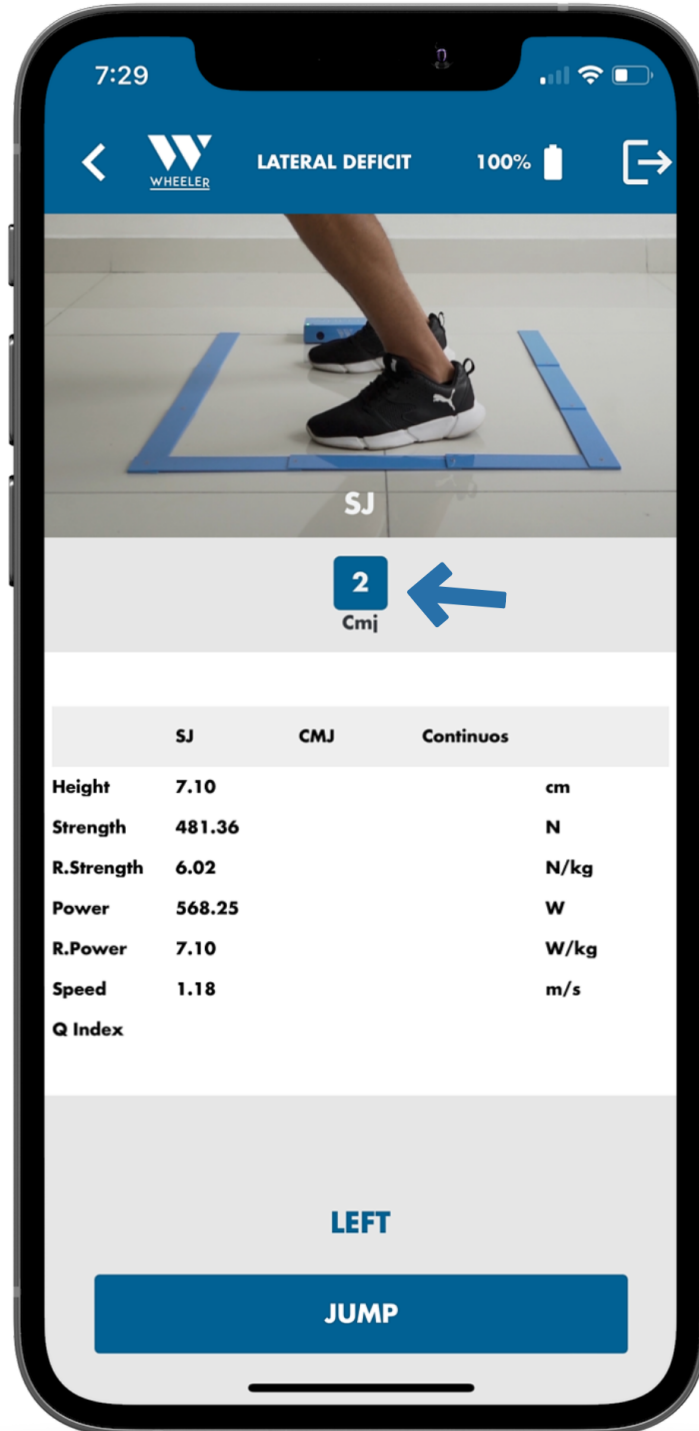


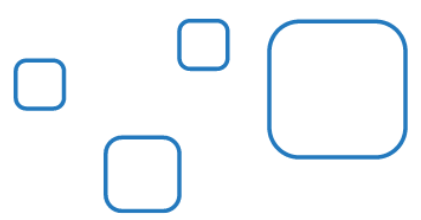
9. The jump title will appear on the top of the screen when selected. Tap on “**Jump**” to initiate the Squat Jump with the left leg.



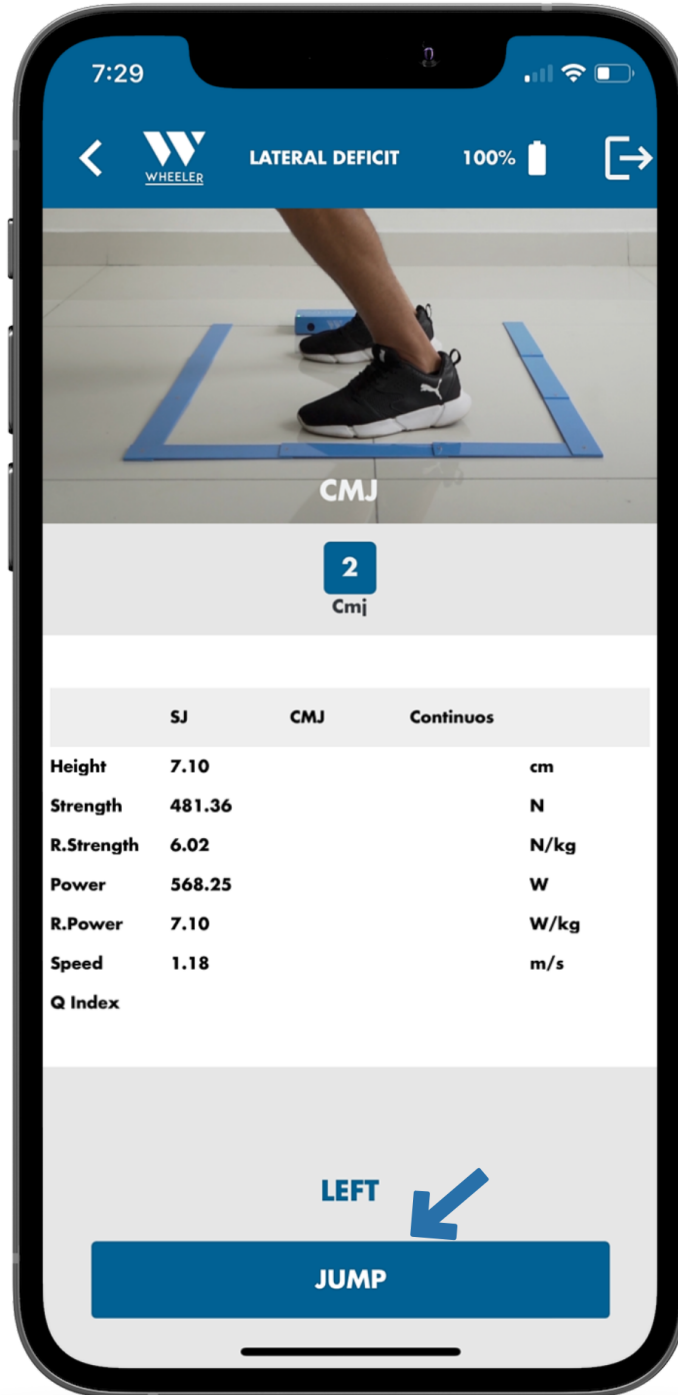


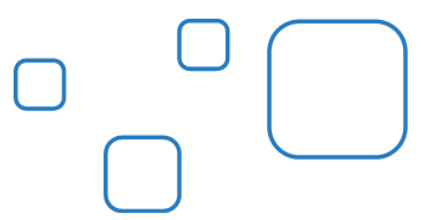
10. Next, tap on “**CMJ**” to select the **Counter Movement Jump** with the left leg.



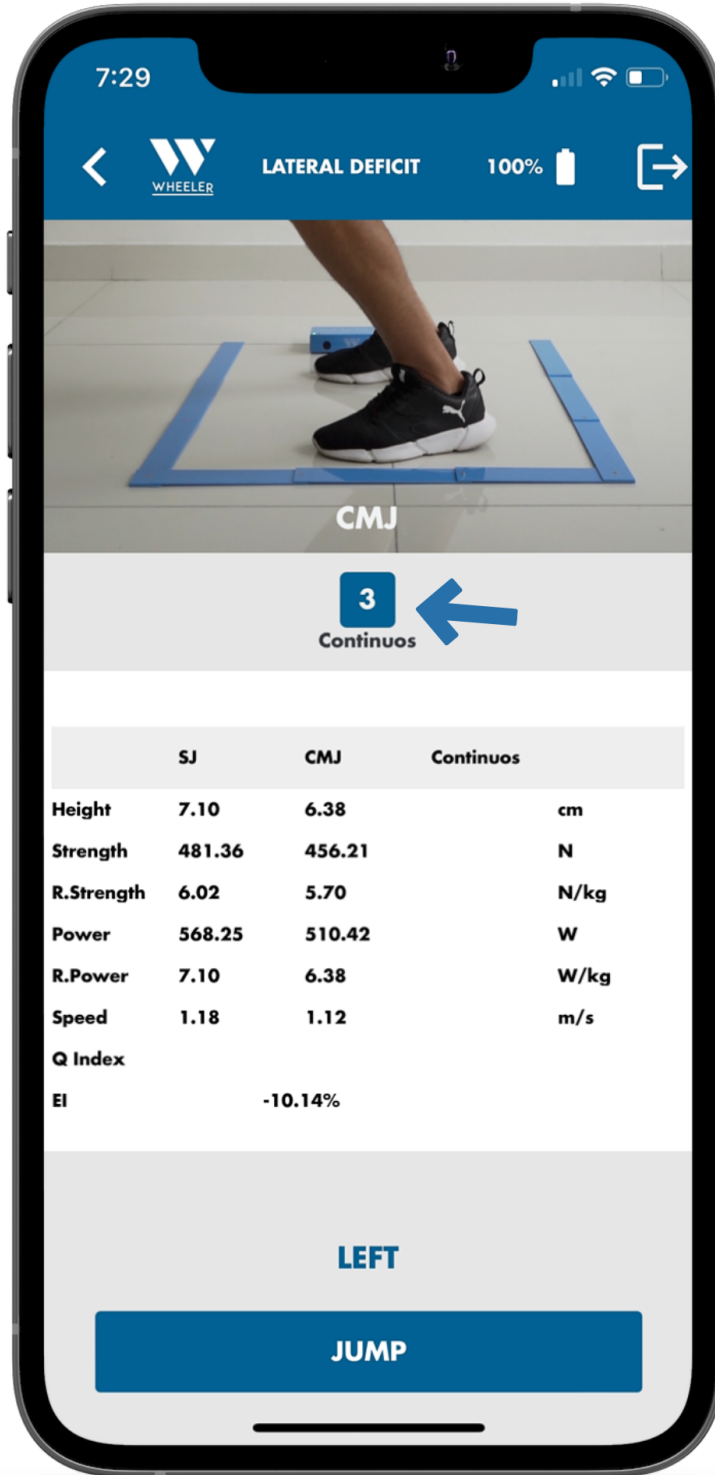


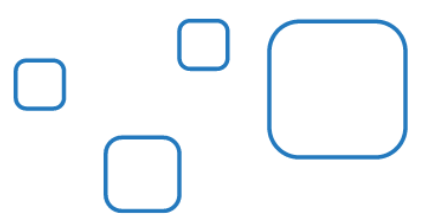
11. The jump title will appear on the top of the screen when selected.
Tap on “**Jump**” to initiate the Counter Movement Jump.



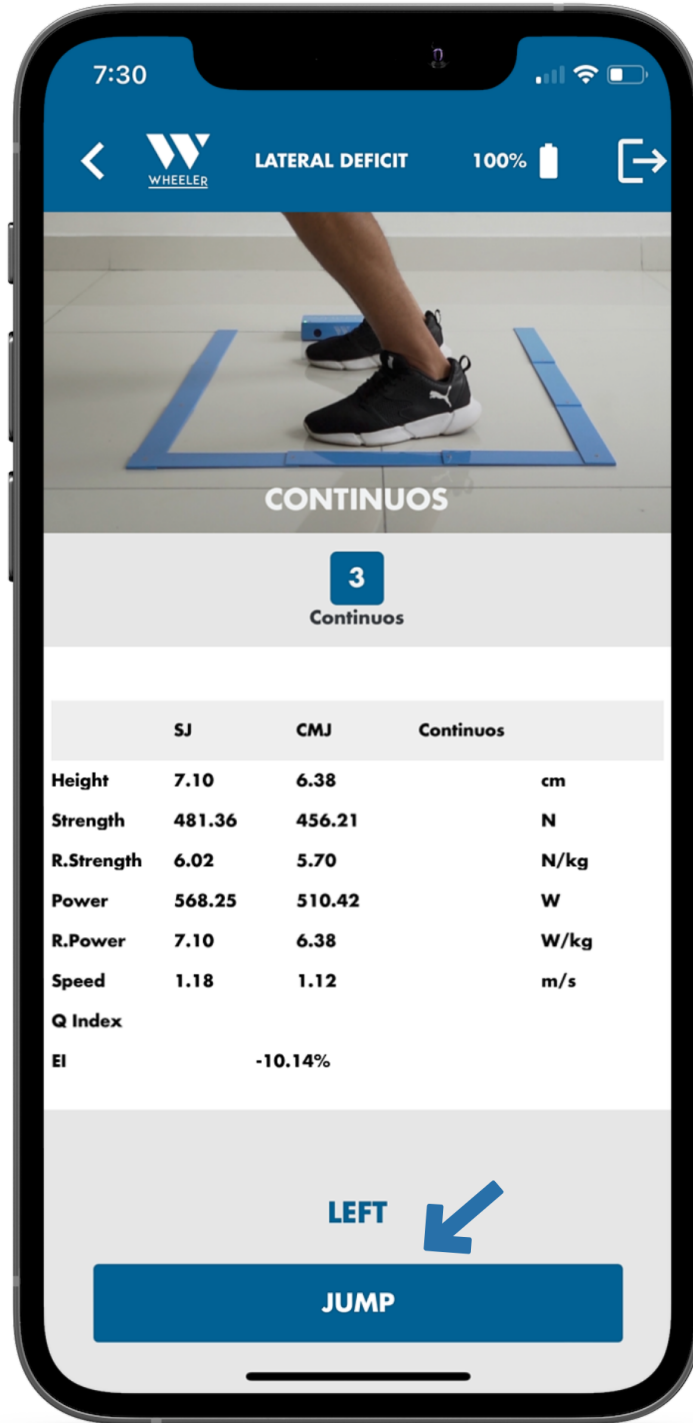


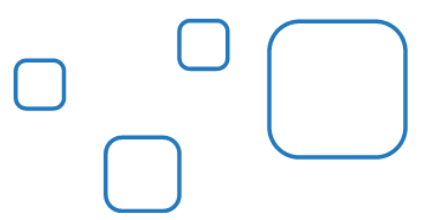
12. Next, tap on “**Continuous**” to select the **Continuous Jumps** with the left leg.





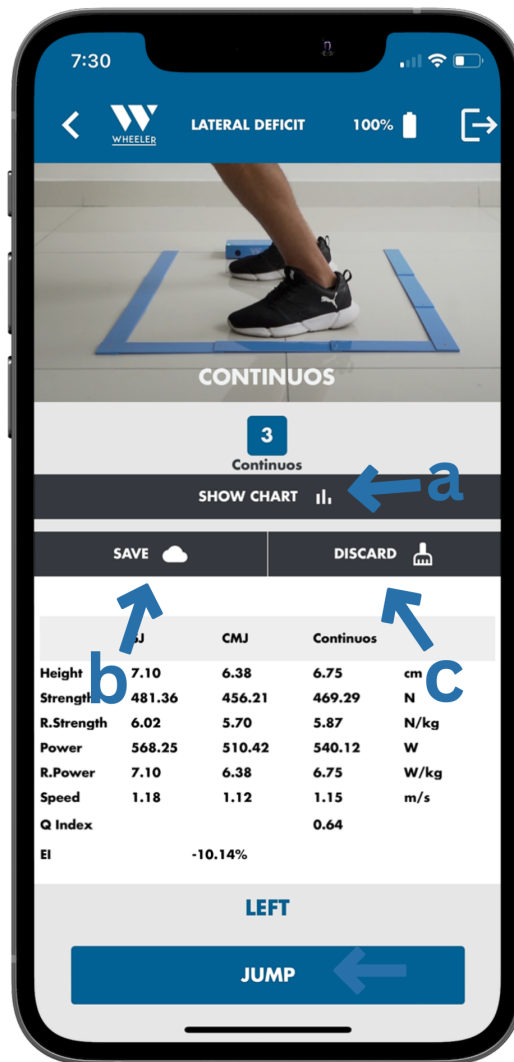
13. The jump title will appear on the top of the screen when selected.
Tap on “Jump” to initiate the Continuous Jump.

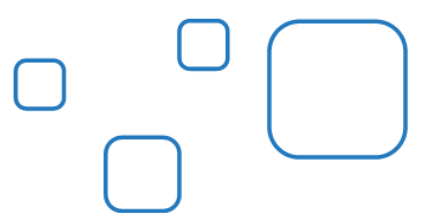




14. Once the final jump has been completed, multiple options will become available:
- Tap on “**Show Graph**” to see the graph with the results.
 - Tap on “**Save**” to save the data on the cloud.
 - Tap on “**Discard**” to discard the whole test.

For this example, we will choose **Show Graph**



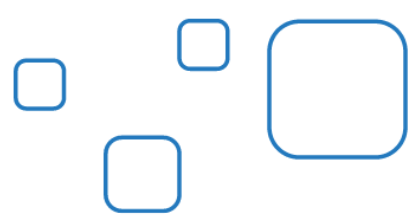


15. The following screen will show the results on a graph comparing both legs so the evaluator can interpret deficiencies.



16. To return to the main menu of assessments, tap on “<”.



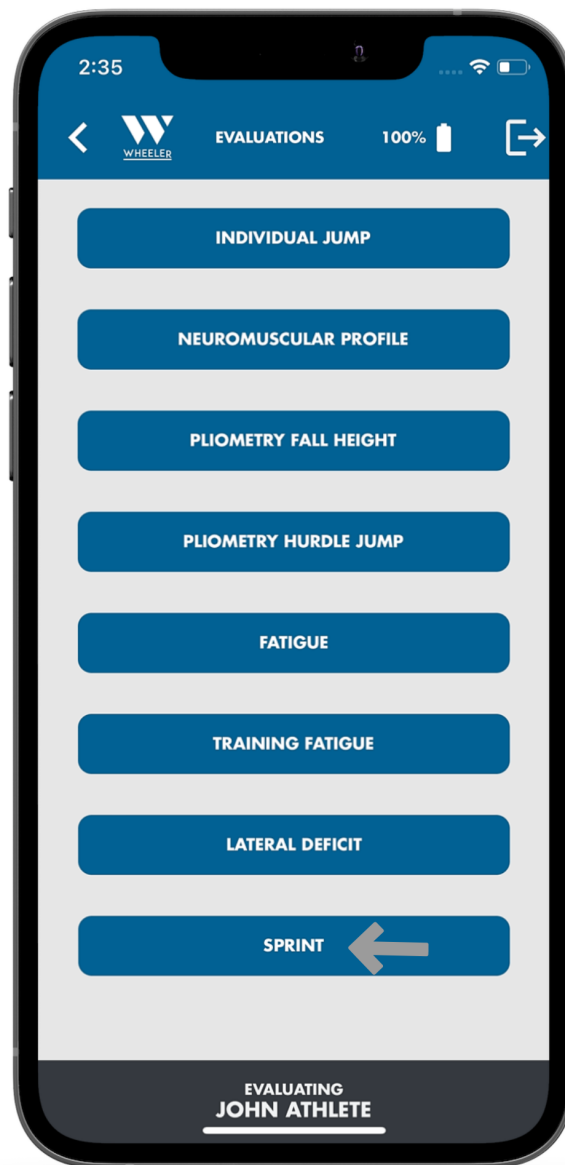


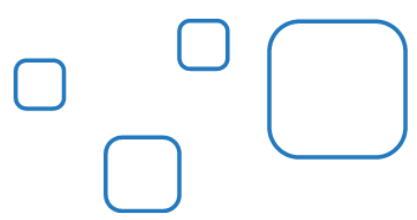
VIII. Sprint

This assessment will allow the evaluator to assess the capacity of repeating sprints at a designated distance. It will also assess which speed was the athlete able to develop during each sprint.

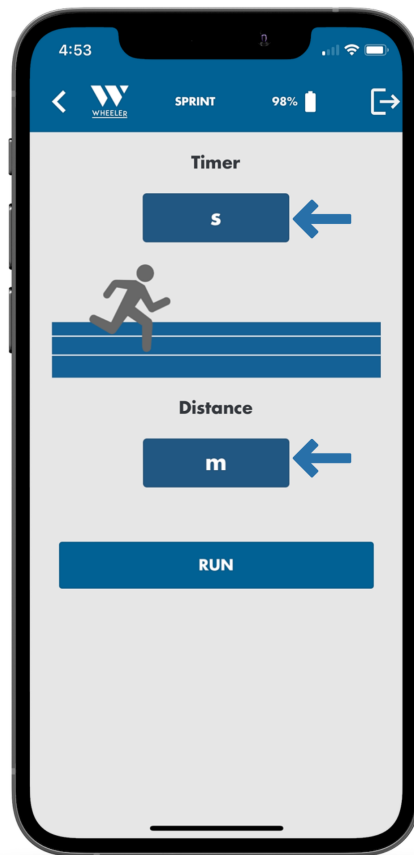
A. Assessment Execution

1. To start, select the “**Sprint**” assessment





2. On the assessment interface, type the resting time between sets in the “**Time**” space; and the distance that the athlete will be running in the “**Distance**” space.



Note that this assessment is a back-and-forth run. The athlete needs to depart the WheelerJump measuring area and pass through the area again to re-activate the system.

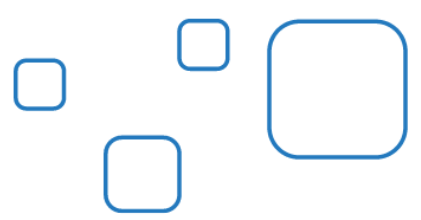
This means that the distance input on the “**Distance**” space is a back and forth distance. If the athlete needs to run from point **A** to point **B** 5 m, the distance to input on the space will be **10 m**:

A to B= 5m

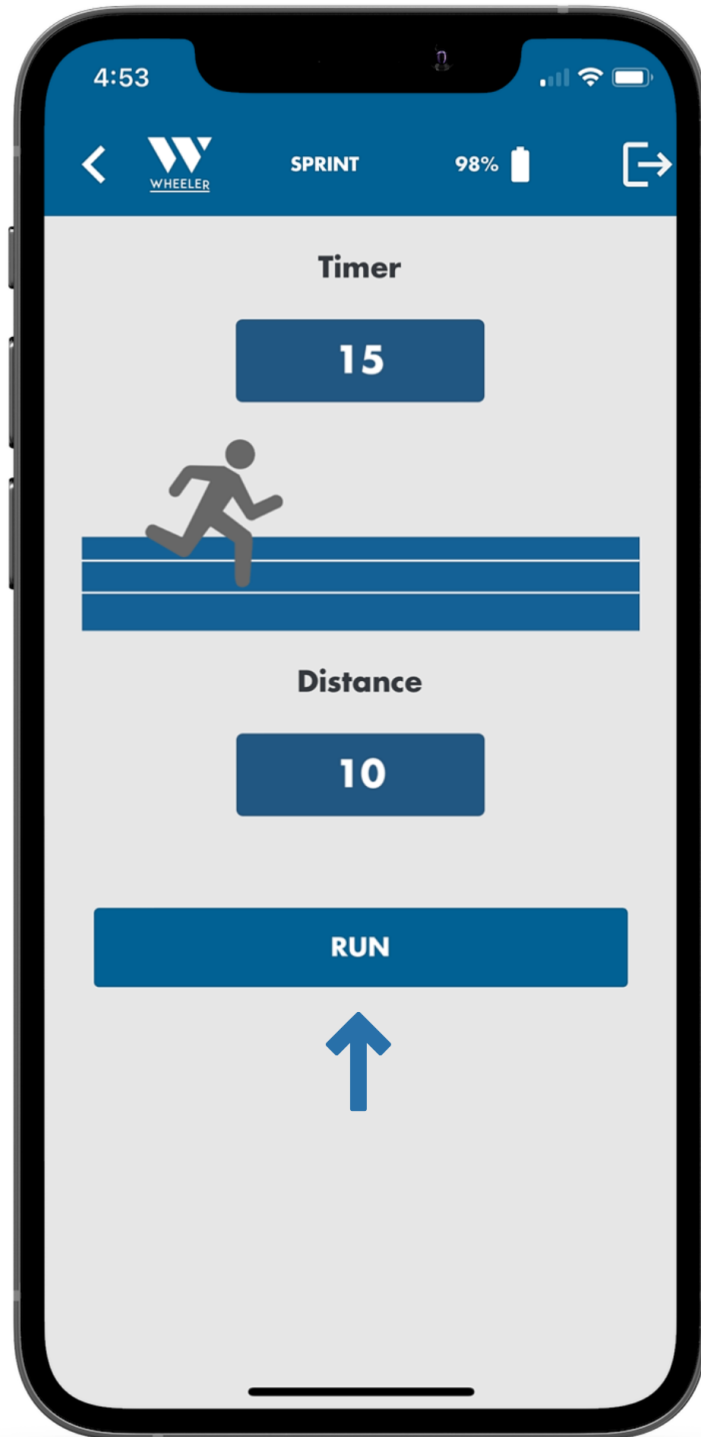
B to A= 5m

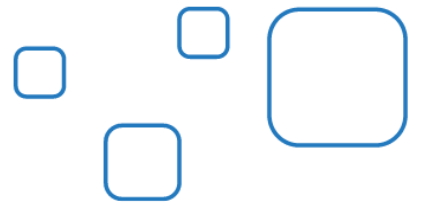
Total distance= 5m+5m= 10m



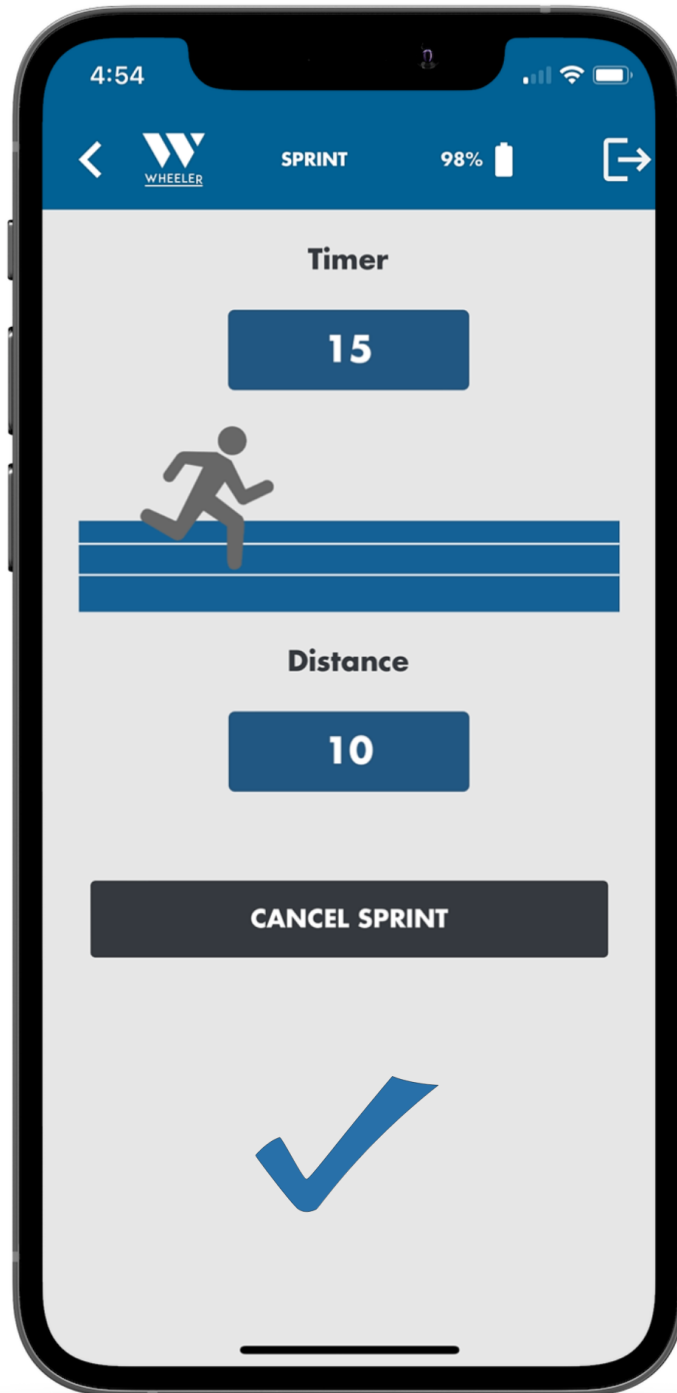


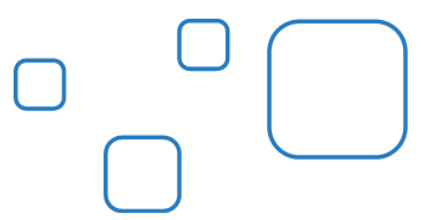
3. Once time and distance are added are in correct spaces, select on **“Run”**





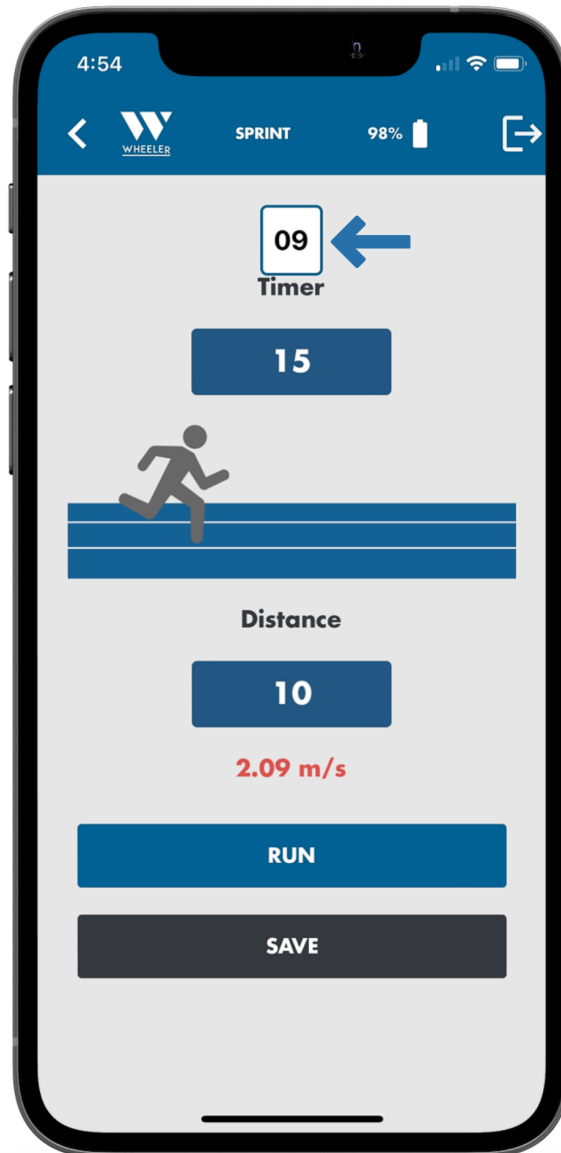
4. The following screen shows that the sprint is currently being assessed.

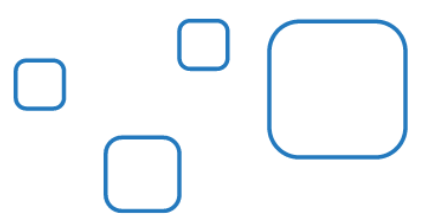




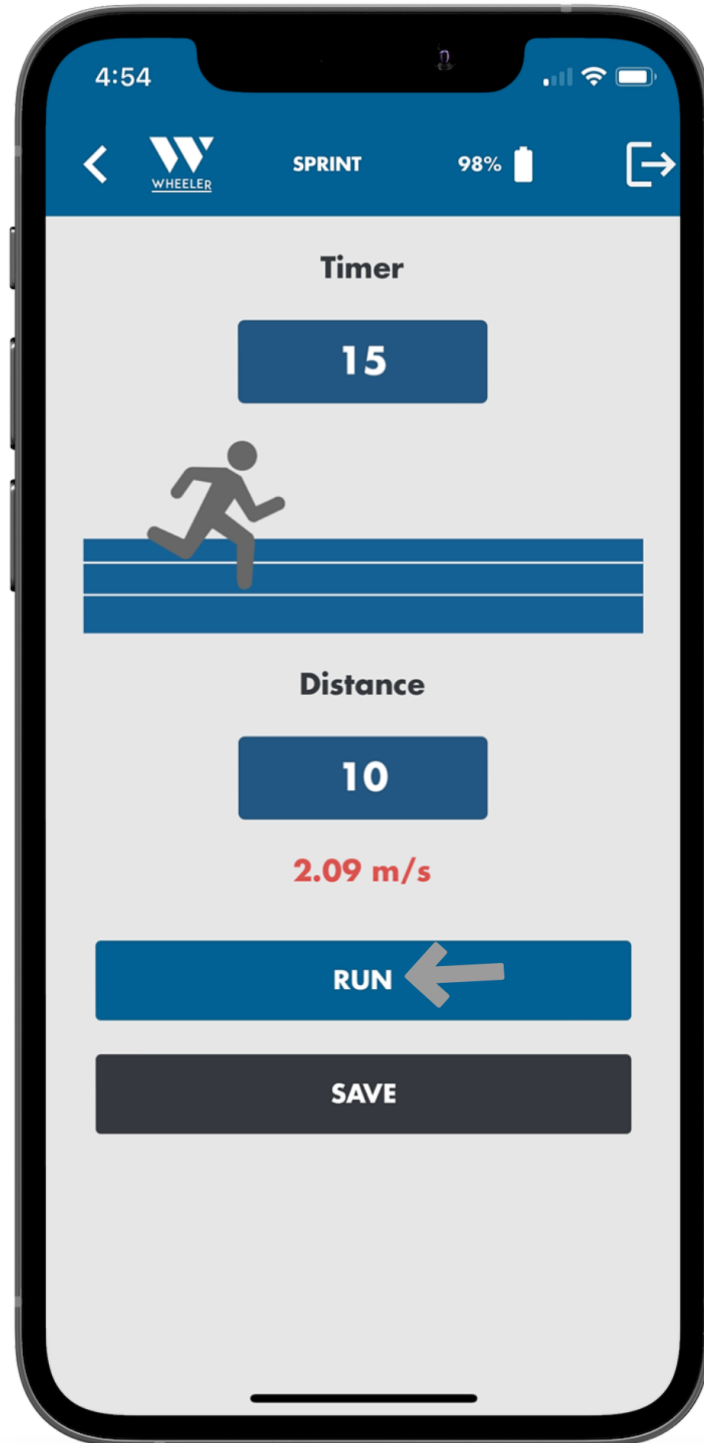
5. Once the athlete crosses the WheelerJump sensors, the resting time will start counting down the time pre-selected.

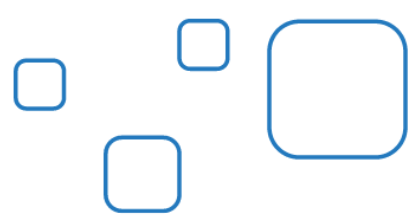
The speed developed by the athlete per second will be displayed in red.





3. Once the time has elapsed, situate the athlete in the testing area again. Select “**Run**” to initiate assessing a second sprint.





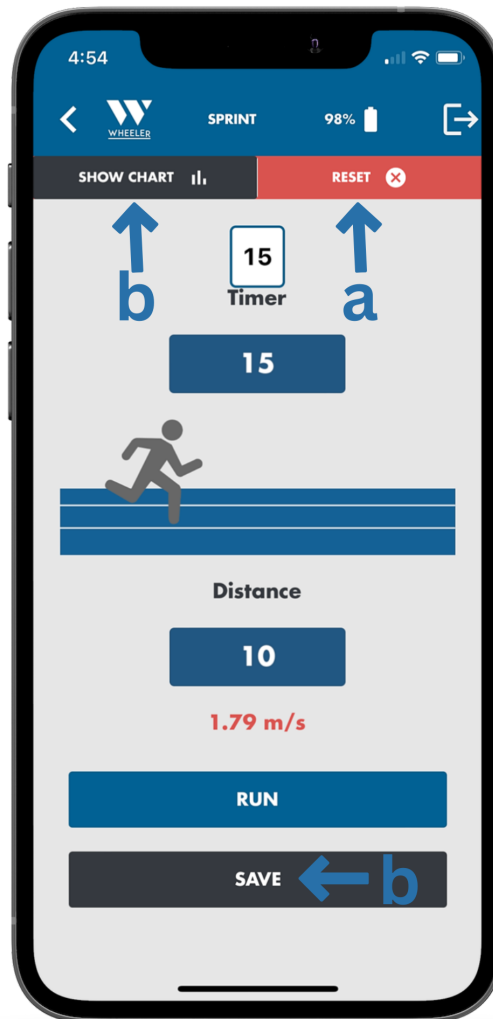
4. Once the athlete crosses the WheelerJump for a second time, the timer will start running again.

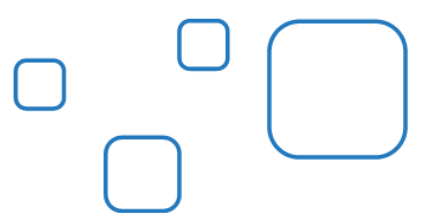
Multiple options will become available:

- a. Tap on “**Reset**” to restart the test.
- b. Tap on “**Show Graph**” to see the results on a graph.
- c. Tap on “**Save**” to save the assessment on the data cloud.

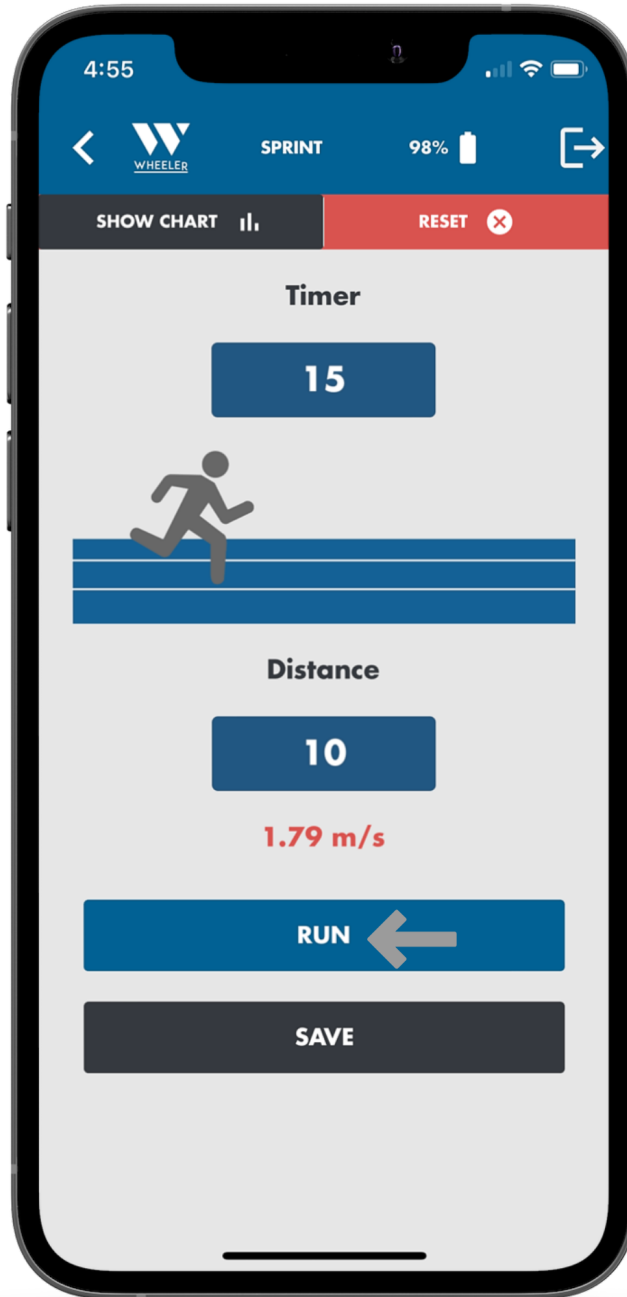
For this example, we will be assessing the third (3rd) sprint.

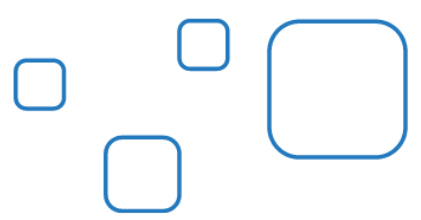
Note that you can assess as many sprints as you want and see the evolution of the athlete through the repetitions.



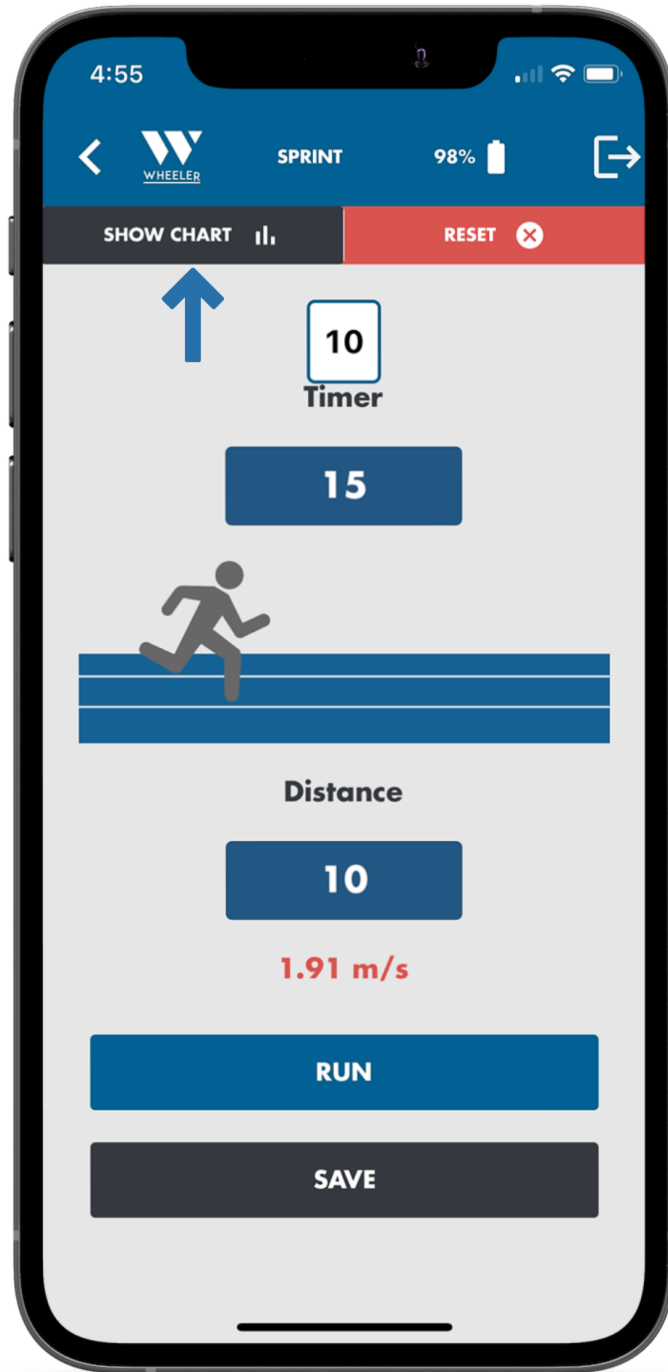


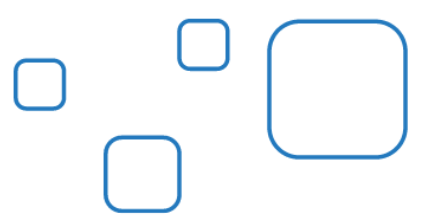
5. Tap on “Run” to initiate the assessment of the third (3rd) sprint



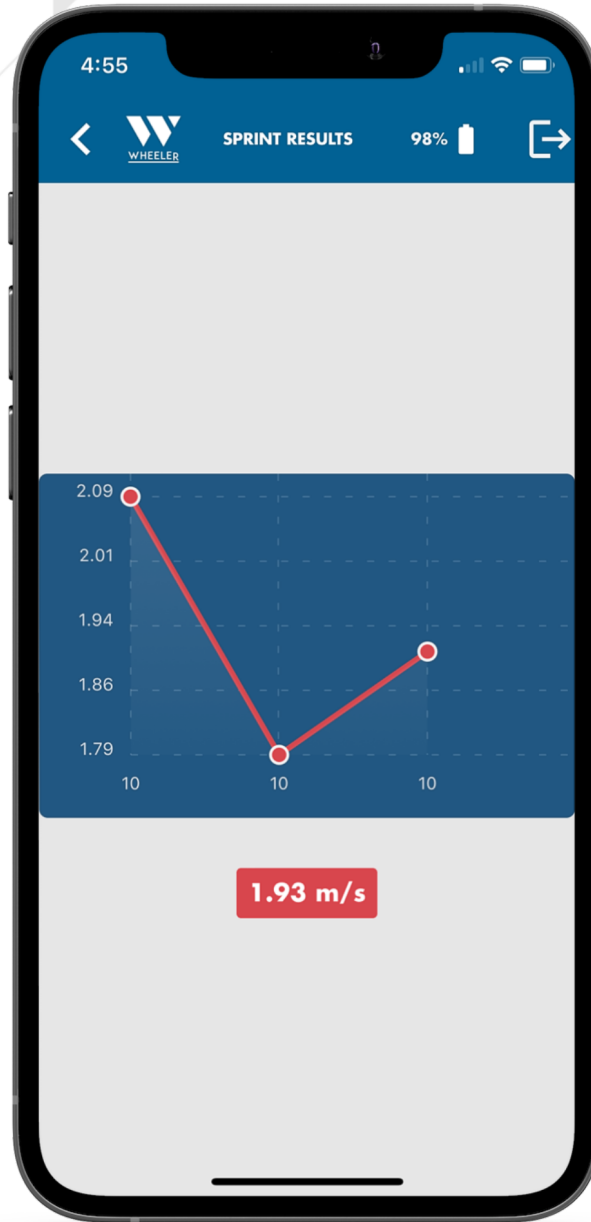


6. Once the athlete finishes the last sprint (in this case the third one), the same options will appear. To see the results as a graph, tap on “[Show Graph](#)”





7. The following screen will show the comparison of the three (3) sprints in the form of a graph.



6. To return to the main menu of assessments, tap on “<”

Now you are ready to roll to the next level!

