

Overview Assessments

Dividat.

The importance of digital assessments

Assessments are an essential part of any training and therapy measure.

Assessments are standardized procedures that objectively measure performance. Digital assessments, especially, have the advantage of being able to standardize the procedure to a large extent and minimize errors in execution.

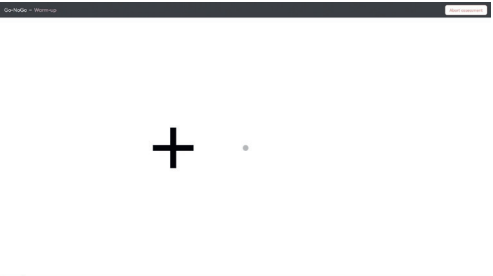
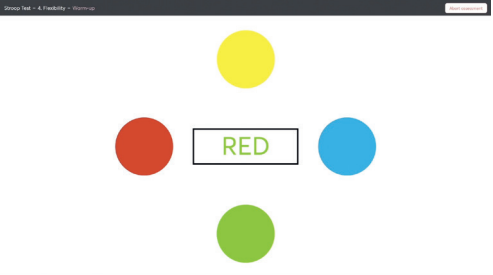
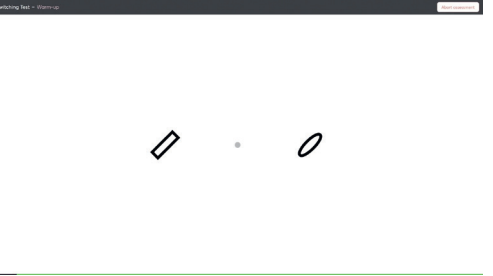
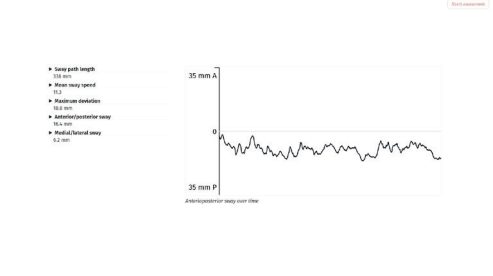
Dividat has developed several digital assessments in collaboration with ETH Zurich. Each assessment focuses on a specific physical or cognitive function.

In line with our approach to cognitive-motor training, we also find it highly important to measure brain performance „in motion“, as our daily life relies on the interaction between cognitive and motor abilities.

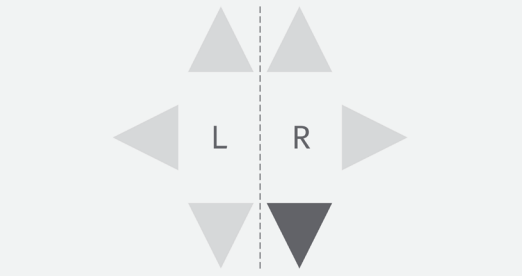
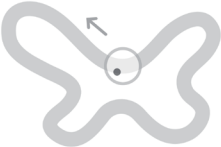
ETH zürich



List of assessments 1/2

Name	Category	Description	Screenshot
Go-NoGo Test	Reaction & Attention	Measures selective attention and conscious control of reactions	
Stroop Test	Executive Functions	Measures the ability to inhibit irrelevant information and actions	
Switching Test	Executive Functions	Measures cognitive flexibility and ability of switching	
Sway Test	Balance	Measures postural control	

List of assessments 2/2

Name	Category	Description	Screenshot
Inhibition Test	Executive Functions	Measures the ability to inhibit a dominant response to a stimulus	
Reaction Time Test	Executive Functions	Measures the average reaction time in six stepping directions	
Coordinated Stability Test	Balance	Measures the ability for static balance control	



Go-NoGo

Reaction & Attention

Measures selective attention and conscious control of reactions

This test measures if specific stimuli are processed and responded to whereby others can be ignored. Selective attention is a fundamental function for focus and orientation in daily life.

Measured Metrics

- Average reaction time
- Average reaction time left
- Average reaction time right
- Errors
- Missed
- Wrong direction

Related Activities



Simple



Divided



Birds



Habitats

Test Description

Intact attention functions are central to efficient action in everyday life. The attention functions control our thought processes, our perception as well as our behavior. Practical activities, mental tasks but also social interactions require a certain amount of concentration.

The Go-NoGo test measures the function of selective attention. The test measures whether under time pressure specific stimuli (target stimuli, Go stimuli) can be reacted to, while others (Nogo stimuli) have to be ignored.

Instruction

Start with both feet on the center plate. Look at the small gray dot at the center of the screen. To the right or left of this dot a **x** or **+** symbol will appear.

x: React by stepping into the direction of appearance as fast as possible

+: Do not react.

Go-NoGo - Warm-up Abort assessment



Go-NoGo - Warm-up Abort assessment



Wait for a symbol to appear

Do not react

Go-NoGo - Warm-up Abort assessment



React with a step to the left

React with a step to the right

Stroop

Executive Functions

Measures the ability to inhibit irrelevant information and actions

This test measures the ability to inhibit not relevant stimuli and provoked reactions. Inhibition is a fundamental function to be able to focus on important information and act adequately in daily life.

Measured Metrics

- Average reaction time
- Errors

Related Activities



Targets



Flexi



Evolve



Drops



Arrows

Instruction

1. Assigning colors

A colored square will appear in the center of the screen. Match the color of the square to the matching circle with a step in the corresponding direction.

2. Reading words

A word will appear in the center of the screen. Read the word and assign the color to the matching circle with a step in the corresponding direction.

3. Inhibition

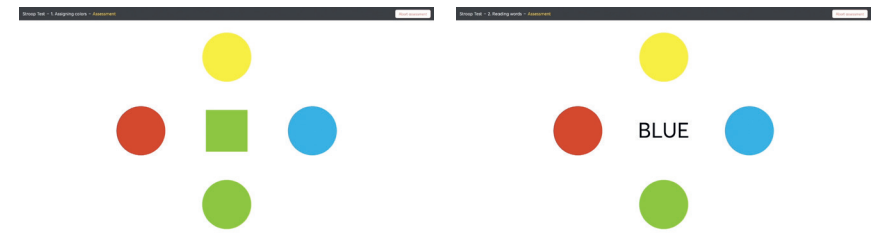
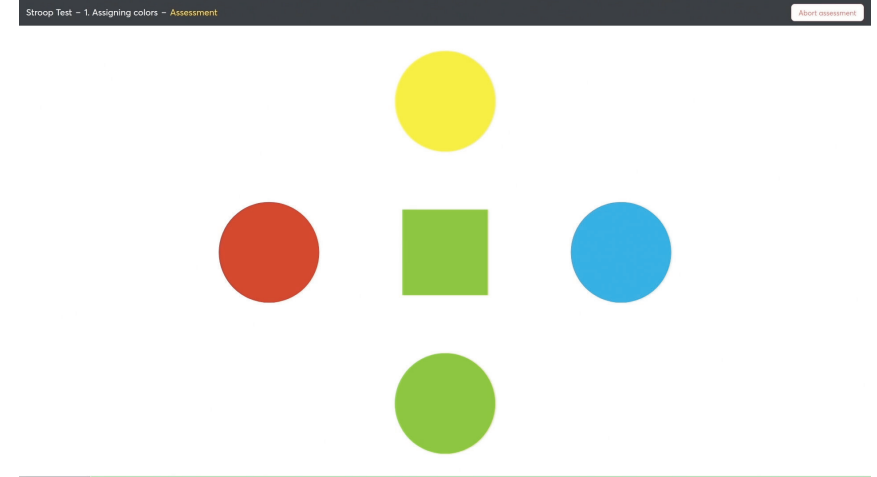
A word written in color will appear in the center of the screen. Assign the color in which the word is written to the matching circle with a step in the corresponding direction.

4. Flexibility

A word with or without a frame will appear in the center of the screen.

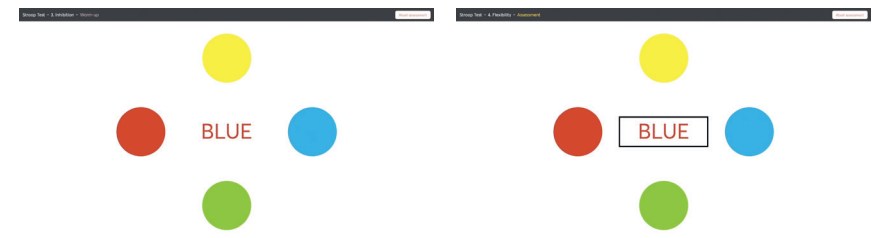
→ Word with frame: Read the word and match the color you read to the appropriate circle.

→ Word without frame: Match the color in which the word is written to the appropriate circle.



1. Assigning Colors. React with a step down (Green)

2. Reading words. React with a step to the right (Blue)



3. Inhibition. React with a step to the left (Red)

Flexibility. React with a step to the right (Blue)



Switching

Executive Functions

Measures cognitive flexibility and ability of switching

This test measures the ability to mentally switch between different concepts. Cognitive flexibility enables fast switching between different (thinking) content in daily life.

Measured Metrics

- Average reaction time
- Errors

Related Activities



Targets



Flexi



Evolve



Drops



Arrows

Test Description

Our everyday actions often require switching between different relevant aspects in addition to focusing on the relevant aspects and suppressing irrelevant aspects. Efficient behavior requires a flexible change of the focus of attention (in perception as well as in thinking)

The Switching Test measures the function of cognitive flexibility. The test measures the ability to switch mentally flexibly between different aspects/concepts. This test uses figures that are either square or round in shape .

Instruction

Look at the small gray dot at the center of the screen. Rounded and angular figures will appear to its sides. Respond by alternating between stepping towards the rounded and angular figure.

First the rounded figure, then the angular figure, then the rounded figure, and so on.

Switching Test - Assessment

Abort assessment



Switching Test - Assessment

Switching Test - Assessment



Start 1st Sequence: Step to the right (round)

2nd Sequence: Step to the left (angular)

Switching Test - Assessment

Switching Test - Assessment



3rd Sequence: Step to the left (round)

4th Sequence: Step to the right (angular)



Sway Test

Balance

Measures postural control

This test measures the static balance and postural control, which is fundamental for safe standing and secure mobility in daily life.

Measured Metrics

- Maximum deviation
- Mean sway speed
- Sway path length
- Anterior/posterior sway
- Medial/lateral sway

Related Activities



Ski



Cloudy



Lumina



Ladybug

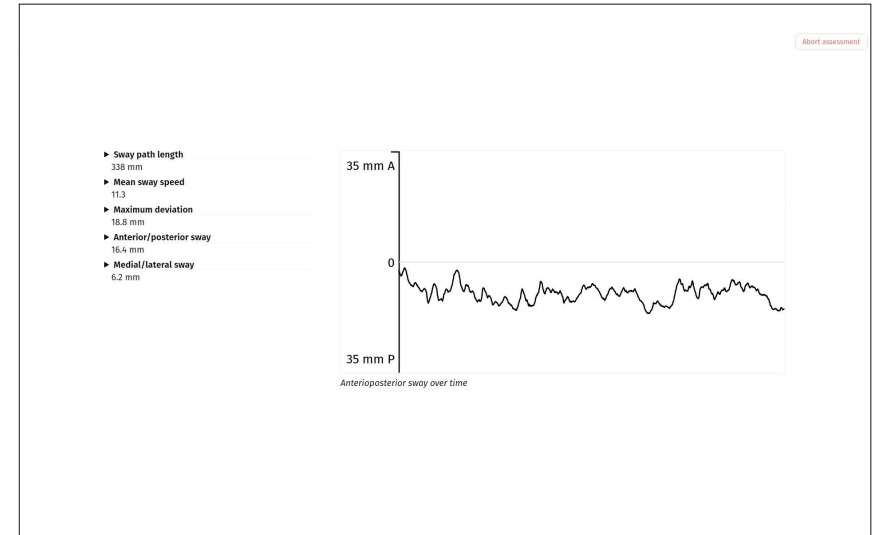
Test Description

This test measures static balance and postural control, which are important for most standing activities.

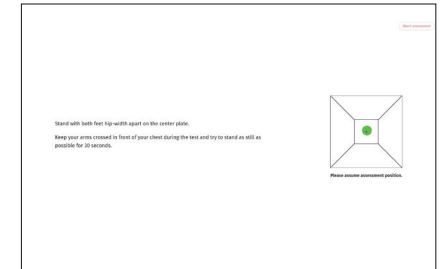
Instruction

Stand with both feet hip-width apart on the center plate.

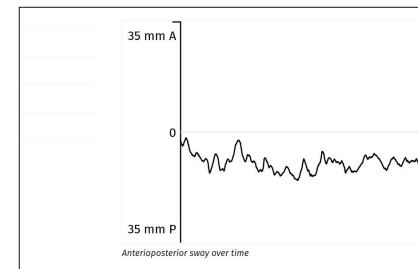
Keep your arms crossed in front of your chest during the test and try to stand as still as possible for 30 seconds.



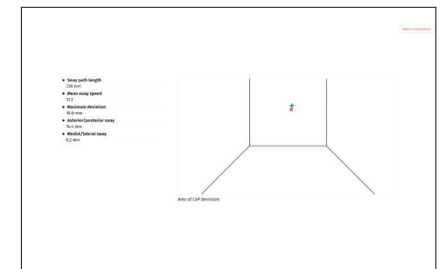
First wait for the device to calibrate



Position yourself in the middle plate



See the results of the different outcomes



See the results of the different outcomes