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🌐 DEMoNS protocol for measurement and analysis of eye movements V.2

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protocol .

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The complete protocol and instructions on measurement and analysis of eye movements with the DEMoNS protocol.

Quantitative saccadic testing is a non-invasive method of evaluating the neural networks involved in the control of eye movements. The DeMONS protocol is a standardized and reproducible protocol for infrared oculography measurements of eye movements and analysis, which can be applied for various diseases in a multicenter setting. In the accompanying manuscript in PLoS ONE, descriptive and reproducibility values are listed of all parameters.

DEMoNS measurement protocol 08juli2015.pdf demons analysis protocol 28072017.pdf

Instructions analysis 19072018.pdf

Instructions Import Files 19072018.pdf

Demons_all_files.zip

protocol

Nij Bijvank JA, Petzold A, Balk LJ, Tan HS, Uitdehaag BMJ, Theodorou M, et al. (2018) A standardized protocol for quantification of saccadic eye movements: DEMoNS. PLoS ONE 13(7): e0200695. https://doi.org/10.1371/journal.pone.0200695

More automated steps in import and analysis

eye tracking, saccades, eye movements, fixation, infrared oculography

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For instructions on analysis with the accompanying matlabfiles, read the instructions
and standard operation procedures (SOPs)
For questions, send an email to info.demonsprotocol@gmail.com or
vanrijn@amsterdamumc.nl

Protocols and instructions

1   Measurement and analysis protocol, and instructions on analysis and import files in Matlab.

The Eyelink measurement is created in the Experiment software of SR research and can
therfore only be used with an Eyelink (SR Research) eyetracker. These zipped files contain the
folders of the developed experiment.
For other eyetracker, the experiment has to be created as indicated in the measurement
protocol .pdf file

📎 **Summary analyis with DEMoNS protocol 16032022.pdf**

📎 **DEMoNS measurement protocol 08juli2015.pdf**

📎 **DEMoNS analysis protocol 08022022.pdf**

📎 **SOP_importfiles_eyetracking_08022022.pdf**

📎 **SOP_Matlab_analysis_08022022.pdf**

📎 **SOP_Visualization_eyemovementdata_08022022.pdf**

2   Matlabfiles needed for automated import of data in Matlab (see document
'SOP_importfiles_eyetracking_08022022')

📎 **Import_split_data_fromtextfile.m**

📎 **importfiletotal.m**

3   Matlabfiles needed for automated analysis of eye moveement data in Matlab (see document
'SOP_Matlab_analysis_08022022')

📎 **Anti_data_variablenames.m**   📎 **Anti_main.m**   📎 **Anti_output.m**

Anti_parameters.m Anti_write_data.m ASerrordeg.m

Detect_saccades.m diffangle.m direction.m Distancedeg.m

Double_data_variablenames.m Double_main.m Double_output.m

Double_parameters.m Double_write_data.m DSerrordeg.m

Express_data_variablenames.m Express_main.m Express_output.m

Express_parameters.m Express_write_data.m eye_signal.m

Filter_gaze.m Fix_data_variablenames.m Fix_main.m Fix_output.m

Fix_parameters.m Fix_stability.m Fix_write_data.m

Main_script_autoanalysis.m pixtodegX.m pixtodegY.m

Prosac_data_variablenames.m Prosac_main.m Prosac_output.m

Prosac_parameters.m Prosac_write_data.m Remove_artefacts.m

Repeat_data_variablenames.m Repeat_main.m Repeat_output.m

Repeat_parameters.m Repeat_write_data.m xlsappend.m

4 Matlabfiles needed for visualization of eye moveement data in Matlab (see document 'SOP_Visualization_eyemovementdata_08022022')

BCEA68calc.m meanangle.m Plot_doubleXY.m plot_error_ellipse.m

Plot_filt_all.m Plot_filt_all_deg.m Plot_graph_all.m Plot_vergence.m

Plot_XY.m prodmomcorr.m scatterfit.m XY_radcircle.m