

# "Eye tracking as a supporting diagnostic tool for Autism Spectrum Disorders"

# REQUEST FOR PARTICIPATION IN THE RESEARCH PROJECT

We are a group of researchers in interaction design from NTNU Gjøvik. With this request, we ask you to participate in a research study that intends to evaluate the applicability of a procedure of eye tracking on 12-24 months old children. The procedure is aimed to highlight some eye movements which can be used as an early sign of Autism Spectrum Disorders. However, in this experiment no judgements will be done on the children's performance. The aim of the experiment is to assess only the feasibility of the procedure on a representative user.

#### WHAT DOES THE STUDY ENTAIL?

Your child will be asked to watch a series of images and/or videos on a screen. At the beginning of the experiment, a calibration exercise will be done with the child, and from that moment on the eye tracker will start to collect data about the child's eye movements. The eye tracker appears as a black box attached underneath the computer screen. It does not produce any sound or movement, and it does not hurt in anyway the child's eyes.

#### POTENTIAL ADVANTAGES AND DISADVANTAGES

The study will provide information about the suitability of the procedure on small children. One day, if the experiment will prove to be feasible on small children, it will be possible that this kind of test could be carried out on small children with high risk of developing Autism Spectrum Disorders (ASD). The earlier it is possible to detect potential markers of ASD, like particular eye movements, the quicker is possible to intervene with appropriate therapies, and therefore increase the opportunities of rehabilitation. However, in this case no judgement will be done on the child's eye movement.

Eye tracking technology has been already used extensively in experimental research for more than two decades, in order to collect information about what the study participants look at and what they pay attention to. No damaging consequences are known for this type of equipment. No particular stressing or discomforting situations are involved in the experiment.

## **VOLUNTARY PARTICIPATION**

Participation in the study is voluntary. If you wish to participate, sign the declaration of consent on the final page. You can withdraw your consent to participate in the study at any time and without stating any particular reason. If you withdraw from the study, you are entitled to demand that the collected data are deleted, unless the data have already been incorporated in analyses or used in scientific publications. The researchers who are present in the experimental facility are Giampiero Dalai and Frode Volden. If you later on wish to withdraw your consent or have questions concerning the study, you may contact Giampiero Dalai (giampied@stud.ntnu.no, +47 47731016) or Frode Volden, (frodv@ntnu.no, +47 93227262).

#### WHAT WILL HAPPEN TO THE INFORMATION ABOUT YOU?

The data that are registered about you will only be used in accordance with the purpose of the study as described in *WHAT DOES THE STUDY ENTAIL?*. You are entitled to have access to what information is registered about you and you are further entitled to correct any mistakes in the information we have registered. All the data will be processed without name, ID number or other directly recognisable type of information. The data will be fully anonymized from the moment the participants leave the experimental facility.

The Project Leader is responsible for the day-to-day running of the research project and that information about you is treated in a safe manner. Information about you will be anonymized or deleted no later than five years after the end of the project.

Based on what stated in the previous paragraph it will not be possible to identify you or your child in the results of the study when these are published.

## **APPROVAL**

The project proposal has been submitted to the Regional Committees For Medical and Health Research Ethics. The purpose of the project is to investigate a procedure for eye detection in small children. Given that the focus of the project will be exclusively on eye detection on young children (12-24 months), and does not intend to generate statistical results, the committee believes that this project is not covered by the scope of the Health Research Act.

#### **CONSENT FOR PARTICIPATION IN THE STUDY**

As legal representative ofshe can participate in the project	(Full Name) we agree that he /
Place and date	Signature of the legal representative
	Legal representative's name in printed letters
Place and date	Signature of the legal representative
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