Information for Screeners

Supplies for Vision Screening Using plusoptiX S12
The following is a list of equipment and supplies used in this screening method:

• Mobile Vision Screener plusoptiX S12
• SD cards
• Neck strap for plusoptiX S12
• 6 AA batteries
• Power adaptor
• Power cord
• IRB-approved consent forms signed by parents or guardians
• Class roster preloaded onto plusoptiX S12
• List of local eye doctors
• Volunteer sign-in sheet
• Pens
• Clipboards
• Flashlight
• Stickers
• Clinic brochure
• Screening brochure
• Training video
• Elks Children’s Eye Clinic vision screening pins

Most of the supplies can be stored and transported in the provided plusoptiX carrying case.

Before the screening
• Contact the site of the vision screening a couple days ahead of time to confirm a scheduled screening. If you have not yet received a class roster, ask for one to be sent to you. Make sure to ask if all the consent forms have been completed and signed by the parent or guardian.

• Using an excel sheet, pre-load the plusoptiX S12 with the children’s first and last names, date of birth and screening site location. (If a class roster is not available ahead of time, make sure someone will be available to provide the necessary information at the time of the screening.)

• Make sure the device contains all six AA batteries, is fully charged and an SD card is available.
Setting up the screening area

• Review the consent forms for all the children who will be screened. Make sure that the section detailing contact information is complete and the form is signed with the parent or guardian’s consent.

• Select a quiet, reasonably spacious area with access to electricity. During a screening lasting more than four hours, you may need to plug into a wall socket. Make sure there is an electrical outlet within reach in case of a battery failure. If batteries are low, the screening device may need to remain plugged-in throughout the duration of the vision screening.

• Limit natural sunlight and incandescent light in the screening area as much as possible. If necessary, bring large sheets of paper and block windows.

• Insert an SD card into the device. This is where the PDF certificates detailing the screening results will be saved. Do not remove the card until the screenings are complete.

• Allow enough space to comfortably screen the child. Find two chairs: one child size chair and one for yourself. (A chair with wheels is ideal.)

• Position the chairs about four feet apart from one another. A minimum distance of three feet is necessary in order to measure the child’s vision.

Lighting

• Lighting is critical to the success of your screening.

• A room without windows is ideal. If not possible, close curtains, shutters or blinds to keep sunlight out and switch off all incandescent light sources. There should be enough light in the room to read the consent form.

• Cold light sources such as fluorescent or energy saving lamps are okay to use.
Screening

- Make sure the child is sitting straight and is remaining still. The knees and nose of the child should be oriented directly towards the screening device. (Do not use additional fixation targets and make sure the child is not distracted by noise, objects or people.)
- Turn on the device. This menu should appear on the touch screen:

![Image of menu with options to select age and enter data]

- Find the child’s pre-loaded device by selecting their age (36-72) and pressing the “Enter Data” button that is paired with the following symbol:
• The following menu should now appear on the touchscreen:

![Menu Image]

• Find the child on the device by typing their identifying information into the appropriate search fields. The “Family Name” field is usually the most effective in narrowing the search.
• Add the child’s information if it has not already been saved. Do this by pressing the green plus symbol that appears below:

![Plus Symbol Image]

• Once the child has been identified, press the shutter button (a large orange button to the right of the touch screen). A warbling noise will be activated in order to capture the child’s attention.
• Slowly adjust the relative position of the device until the child’s eyes have come into focus and their pupils are located (green circles connected by a green line will appear around the pupils).
• When the distance is correct, the device will capture the image automatically along with a chime indicating its completion.

**Interpreting the Result**

• Once the device chimes, indicating the completion of the trial, one of three things will be displayed on the bottom of the screen: “Pass”, “Refer” or “Refer or try again”.

• If the device reads “Pass” or “Refer”, take note of the result on the consent form by marking the appropriate box at the bottom.

• If the result is “Refer or try again”, repeat until an accurate result is registered. Try at least three times per child.

• Look at the child’s pupils.
  - If the pupils are too small or too big you may need to adjust the room light.
  - If too big, shine a flashlight into child’s eyes for a few seconds.
  - If too small, reduce room light or have the child cover his or her eyes for a moment.

• Eyelashes can also interfere with the photo screening. If this is an issue, have the child open their eyes wider or tell them to raise the upper and lower eye lids to completely open their eyes.

• In some cases, the device will read “too much infrared ambient light” or “camera did not detect pupils” as displayed below. This simply means that the child’s pupils are too small to attain an accurate reading. This can be a result of the room being too bright or the presence of natural sunlight or incandescent light bulbs. If this is displayed, do your best to dim the room light, close out natural sunlight, turn off any incandescent bulbs and try again.

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**Too much infrared ambiance light!**

**Camera did not detect pupils!**