

Instructions for using the video invigilation system (proctoring) for the participant of the International Tuymaada Olympiad

1. Introduction

This proctoring system is designed to monitor the independence of the Olympiad tasks takers performance on the platform designated by the Organisers. It verifies the identity of an Olympiad participant and monitors in real-time any possible infringements that may be considered academically dishonest and constitute violations of the Olympiads rules.

2. Technical requirements

Proctoring system minimal technical requirements

RECOMMENDED WEB BROWSERS	Chrome 72, Opera 59, Firefox 66, Microsoft Edge 79, Яндекс.Браузер 19.3
OPERATING SYSTEM	Windows 7, macOS 10.12 "Sierra", Linux
WEBCAM	640x480 resolution or better, 15 fps
MICROPHONE	any
SPEAKERS	optional (for communication with the proctor/observer)
INTERNET CONNECTION	256 Kbps

Before starting the event, you need to check the compatibility of your computer with the proctoring system on the following page <https://proctoredu.ru/check> (Russian), <https://test.webrtc.org> (English).

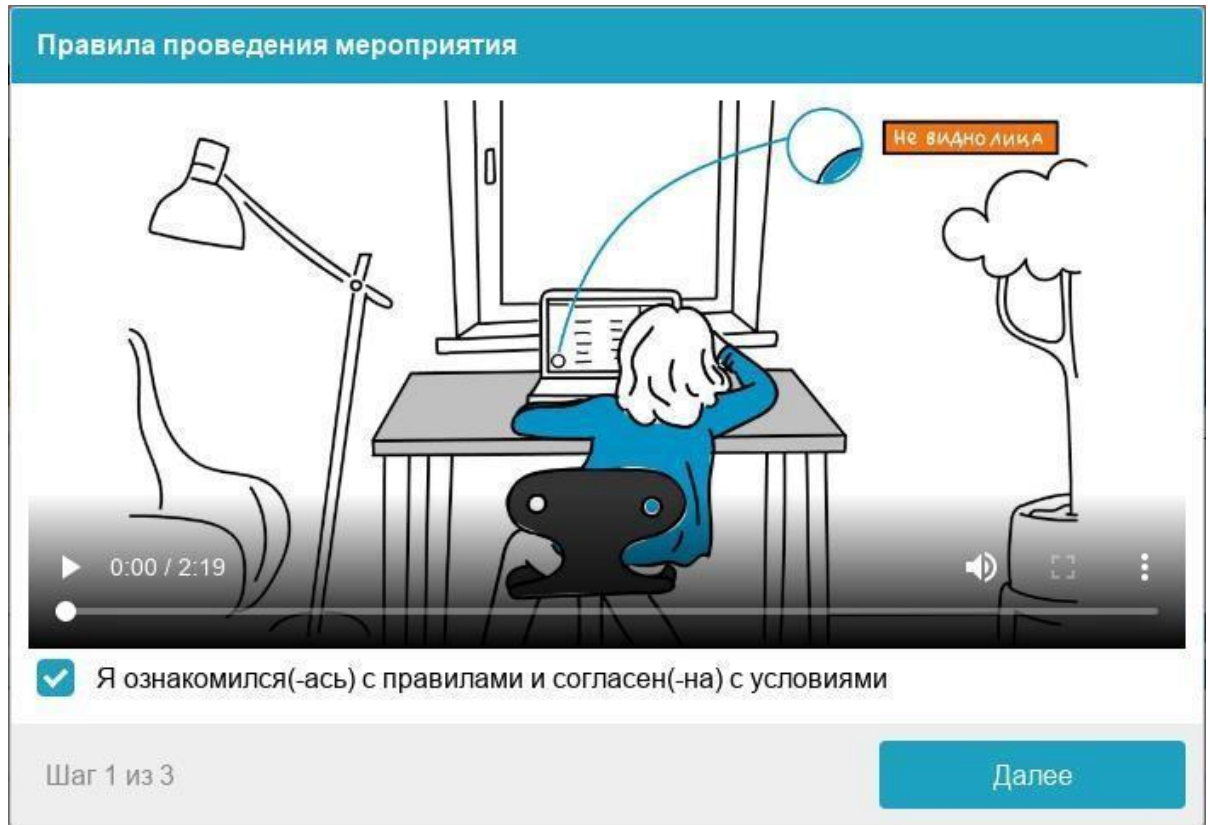
Additionally, you can check your webcam, microphone and internet connection here:

- [Тест веб-камеры](#) (Webcam test)
- [Проверить микрофон онлайн, тест работы микрофона](#) (online mike test)
- [WebRTC Troubleshooter](#)
- [Проверить скорость интернета](#) (Internet speed test)

3. Olympiad Rules

Participants are admitted to the Olympiad, must on the list published on the Sakha Junior Science Academy website. Access is granted on September 30. Information will be posted on the website or send by letter.

To start the proctoring, you must familiarize yourself with the rules and give your consent to the terms of the competition (Figure 1)



Compliance with the following guidelines throughout your session will help you get your results to the top confidence level:

- you give your consent to audio and video recording and subsequent storage of materials;
- Webcam must be installed strictly in front of your face, do not install the camera from the side;
- your head must fit into the frame, partial or complete withdrawal from Webcam view is not allowed;

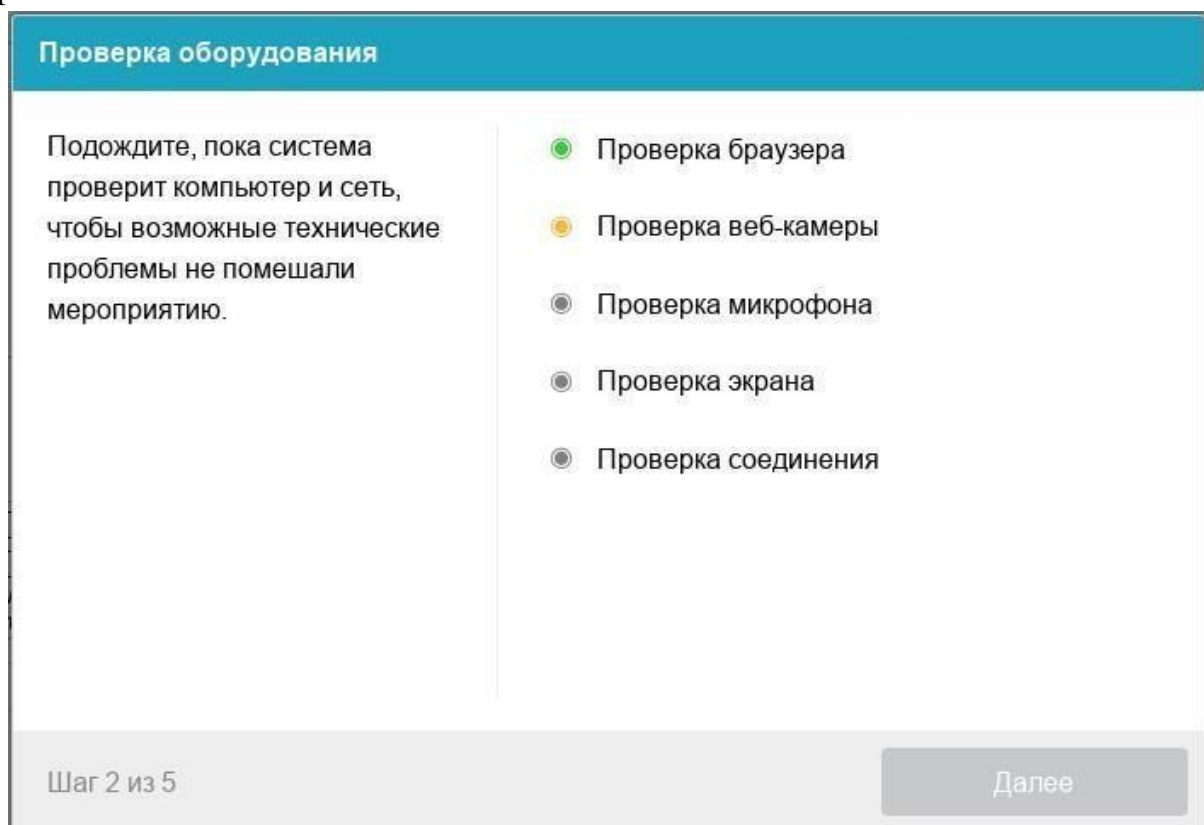
- your face must be in the center of the Webcam's field of view and occupy at least 10% of the space captured by the camera throughout the session;
- your face should be evenly lit, the light source should not be directed towards the camera or illuminate only one half of your face;
- hair, clothing, hands or anything else should not cover the face;
- it is not allowed to wear sunglasses, you can only use glasses with clear lenses;
- there should be no other people in the room;
- during the session, it is prohibited to leave your workplace;
- there should be no voices or noise in the background, ideally, the tour session should be held in silence;

throughout the session the browser must be maximized to full screen, you cannot switch to other applications (including other browsers) or minimize the browser, you cannot open third-party tabs (pages);

- all applications that use the webcam must be switched off or disabled on your computer, except for the browser;
- it is prohibited to record the materials and contents of the session in any way, as well as transfer them to third parties;
- it is prohibited to use audio-visual or any other prompts;
- in case of detection of an attempt to deceive the system or the proctor (observer), the results of the session will be canceled.

Equipment check

Before the start of each session, a computer and network is checked, which allows identifying possible technical problems before the start of the session (Figure 2). The check is carried out automatically, user intervention is required only in case of problems.



There are the following verification steps:

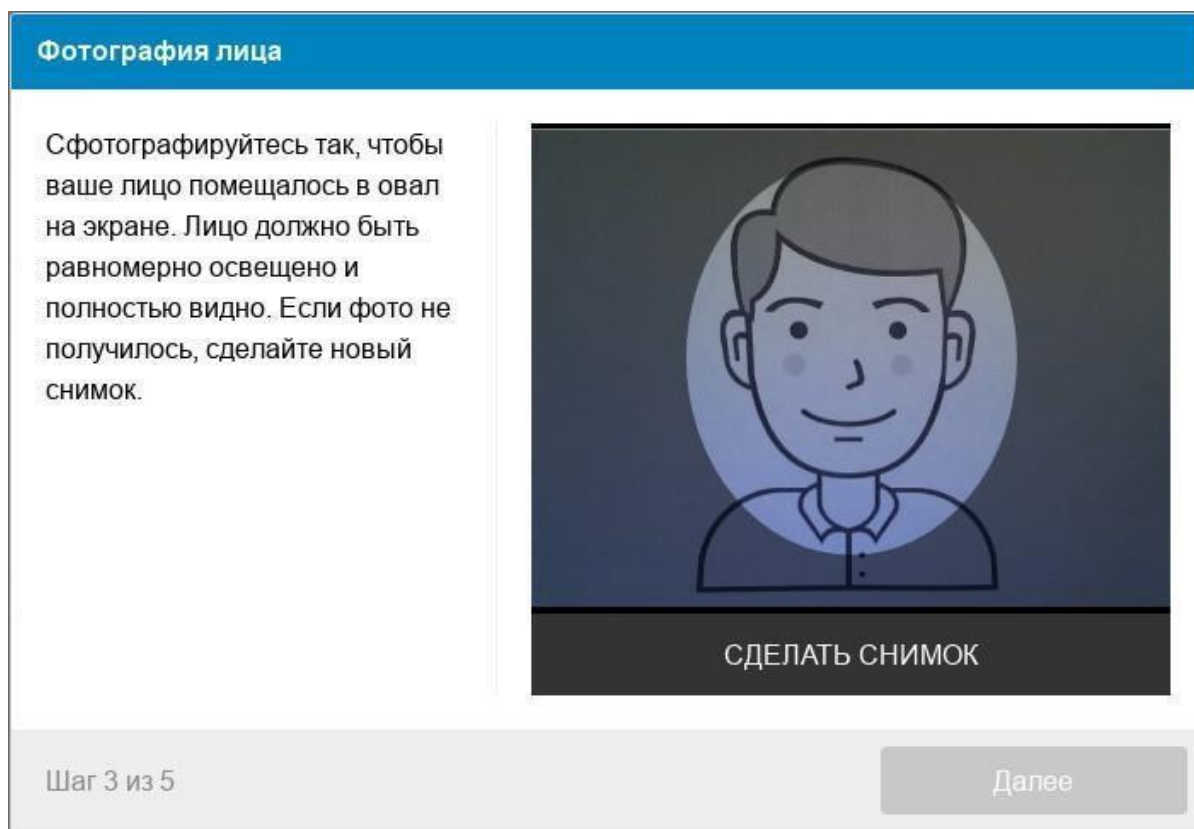
- 1) At the stage of checking browser compatibility, it is checked that your browser meets the minimum requirements of the projection system; the browser window must be maximized to full screen.
- 2) At the stage of checking the webcam, you need to give access to the camera in the browser, if such a request appears. If the camera is working correctly, then the check will be successful.
- 3) At the stage of checking the microphone, you need to give access to the microphone in the browser if such a request appears. If the microphone volume is set to a sufficient level, the test will be successful.
- 4) At the screen verification stage, the correctness of the screen capture is checked, where you need to give access to the entire screen. If access is not given to the entire screen or an additional monitor is connected, the test will fail.
- 5) At the stage of checking the connection, the possibility of transmitting video traffic in your network using WebRTC technology is checked. The check will be successful if the traffic is not blocked.

Possible problems and troubleshooting table.

№	Problem	Troubleshooting
1	Error at the browser check stage	Your web browser does not meet the minimum proctoring system requirements. Install the latest version of the browser or try another browser.
2	Error at the stage of checking the webcam	The webcam is not working or is being blocked by another application on the computer. Check if your webcam is working; close other applications that may work with the camera; select in the dialogue the correct camera settings if the computer has several webcams (see Figure 4). If the camera works but the error persists, then try restarting your computer.
3	Error during the microphone test stage	Microphone not working or is muted in your computer settings (operating system). You need to increase the microphone volume or connect another microphone and select it in the settings dialogue (see Figure 4).
4	Error during the screen verification stage	No screen access, your browser does not support screen capture, you have not given access to it, you have only given access to a part of the screen. If you are prompted to access the screen, grant access, if not, refresh your browser.
5	Error during connection check stage	The transmission is blocked on your computer or your internet service provider video traffic using WebRTC technology. The data transfer rate must be at least 128 Kbps, and TCP / UDP 3478 ports must not be blocked on the network. Find another way to connect to the Internet or another computer.
6	Error during the WebRTC verification	Your computer or your ISP is blocking the transmission of video traffic using WebRTC technology. The data transfer rate must be at least 256 Kbps (receiving and sending), and TCP / UDP ports 3478 must not be blocked on the network and on the computer (in the firewall). VPN can also be a possible cause of problems. Check network speed and port blocking, disable VPN.

Face photography

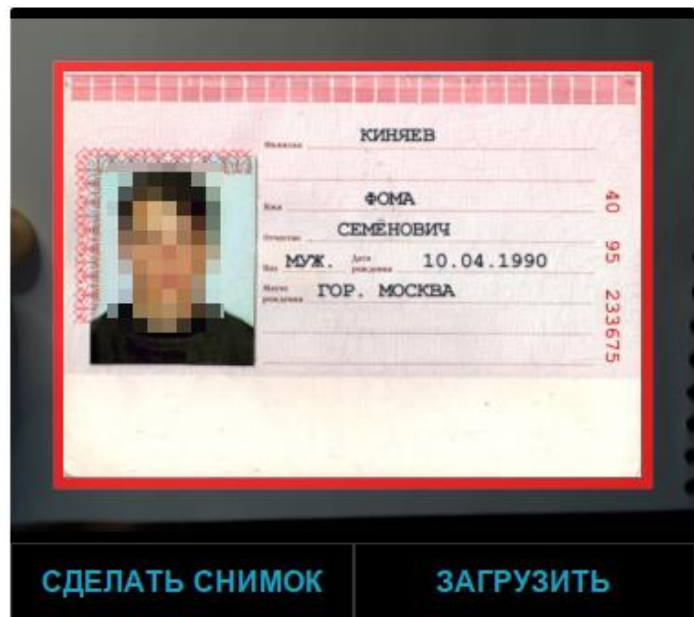
The proctoring system may require a photograph of your face to be taken through your webcam. A photograph of your face is part of the procedure to verify your identity (Figure 3).



The proctoring system may require a photo of your identity document (passport), which will need to be taken through a webcam or uploaded a scan from a computer in JPEG format up to 5 MB. The passport is automatically checked by the proctoring system for correctness and legibility, and the photo in the passport is checked against your face. The photo of the document is the part of the procedure for verifying your identity (Figure 4).

Загрузка удостоверяющего личность документа

Сфотографируйте или загрузите скан страницы удостоверяющего личность документа, на которой присутствуют ваши фото и имя.



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Далее

Olympiad Problems Completion

After successfully completing the previous steps, the testing page will open. The session (test) page opens in the central part of the window, and a small circle is displayed in the lower-left corner, where the picture from your camera is displayed. During the session, you can communicate with the proctor (observer), if he is online, the chat with the proctor opens on the right side of the screen. Sometimes the proctor can connect via video and audio, in which case a video from the proctor's camera appears above the chat.

During the session, make sure that your face fits completely in the circle and is well lit. Notifications may appear next to the circle if some of the event rules are not followed.

The answer to each problem can be saved any number of times, the last one will be considered the final answer. In this case, the system stores only those answers, after entering which the participant pressed the "Save" button.

End of the session

After completing the assigned problems, complete the session. Once completed, it will no longer be possible to execute it again. In the case of violations of the session rules, the proctor (observer) has the right to interrupt the session, the session stops, and its results are cancelled. Also, completion occurs automatically after the end of the allotted time.

All audio, video and text messages, as well as recorded violations, are stored in the system and linked to the proctoring protocol. After some time, the results are checked and a final conclusion is made.