# ProctorEdu

# Instructions for Students

# 1. System Assignment

The proctoring system is designed to validate the independence of passing online exams or tests in distance learning systems (LMS). It verifies the identity of the participant and monitors in real time to identify possible violations.

# 2. Technical Requirements

Technical requirements of the proctoring system are given in Table 1.

Table 1. Technical requirements

| Parameter | Minimum requirements |
|---|---|
| Web browser | Chrome 72, Opera 59, Firefox 66, Edge 79, Safari 12.x |
| Operating System | Windows 7, macOS 10.12 "Sierra", Linux |
| Supported mobile version | Android 4.4+ Chrome 72+, iOS 13+ Safari |
| Webcam | 640x480, 15 fps |
| Headset | Required |
| Speakers | Optionally (for communication with proctor) |
| Web (Internet) | 256 Kbit/s |

Before the event, you should check the compatibility of the computer with the proctoring system on the page https://proctoredu.com/check.

Additionally, you can check the webcam, microphone and network here:
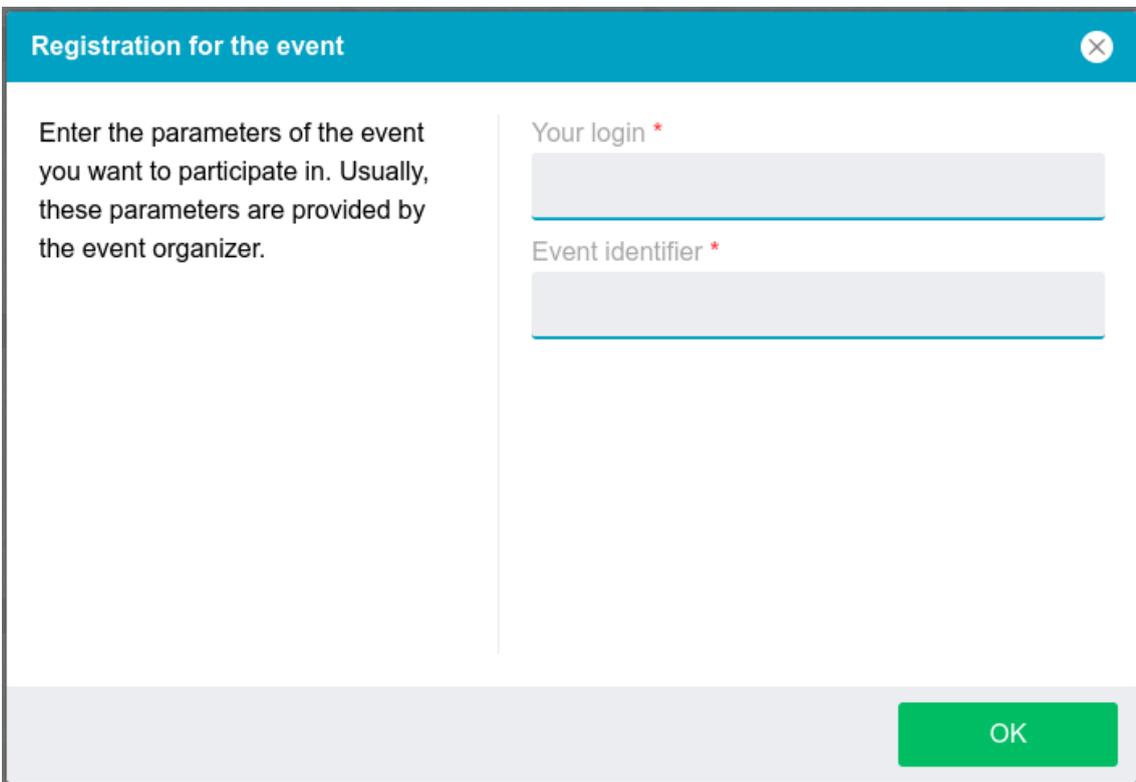
- Webcam test

- Microphone test

- WebRTC Test

- [Check the internet speed](#)

## 3. Registering for the event

Depending on the scenario chosen by the organizers, you may need to register for the event first. To do this, two fields need to be filled in (Picture 1):

- Login is a unique and unchangeable identifier of the participant consisting of Latin letters and numbers (sometimes it is already filled in, in this case it does not need to be changed);
- Event ID is a set of Latin letters and numbers indicating a specific exam or test.



**Registration for the event**

Enter the parameters of the event you want to participate in. Usually, these parameters are provided by the event organizer.
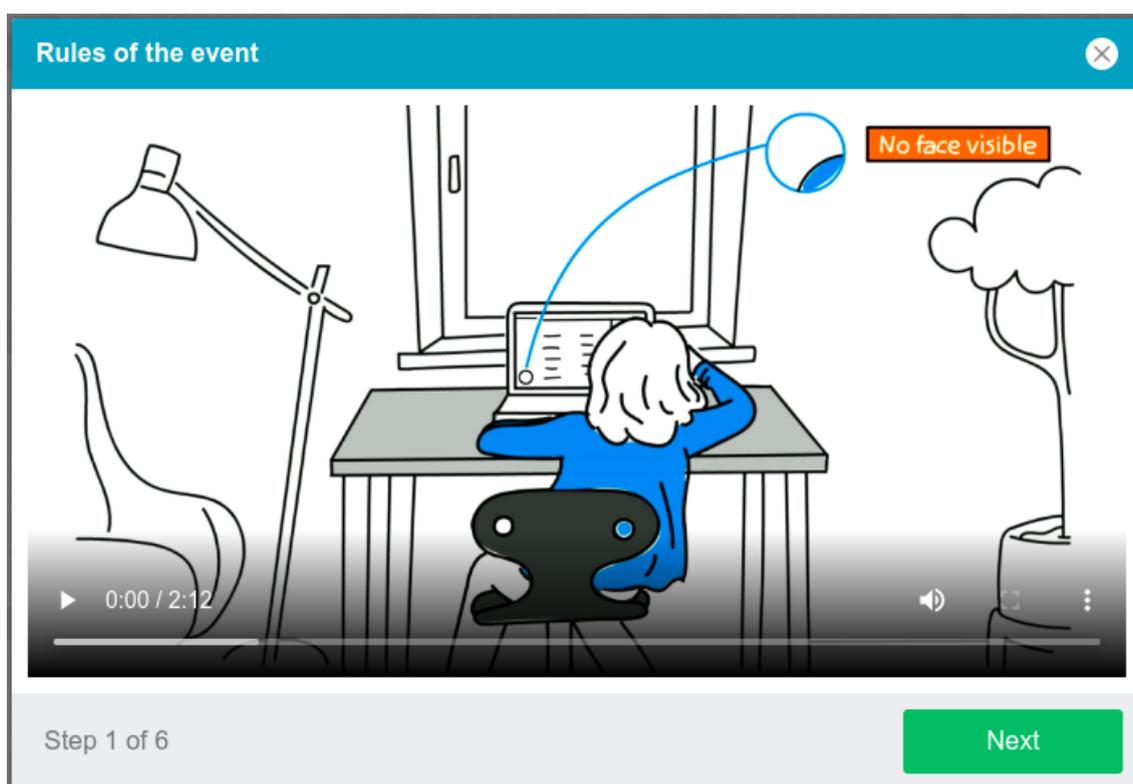
Your login *

Event identifier *

OK

Picture 1 — Registration for the event

What to use as a login and what event ID to use should be communicated by the organizer in advance.

# 4. Assessment Rules

To start an exam with proctoring, you should familiarize yourself with the rules of the event and give permission to the conditions of the proctored exam (Picture 2).



Picture 2 — Assessment rules

The system automatically evaluates credibility in the exam results based on the indicators listed below. Abidance with the following rules during the whole exam session would help you to get the highest credibility in the exam results:
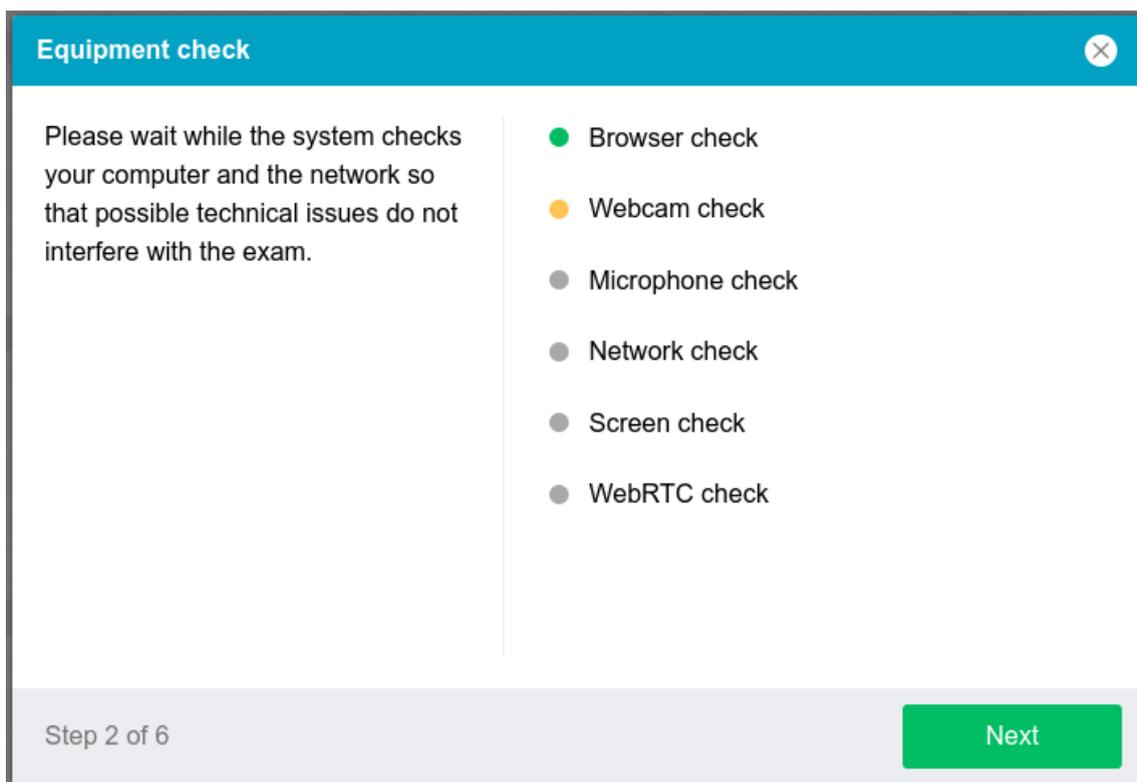
● You give your consent to the audio and video recording and subsequent storage of the entire examination;

● The webcam must be placed strictly in front of your face, no cameras may be placed on the side;

- The head should be fully framed, and no partial or complete exit from the camera's field of view is permitted;

- The face should be in the center of the webcam's field of view and occupy at least 10% of the space captured by the camera during the entire session;

- The face must be lit evenly and the light source must not be directed into the camera or illuminate only one half of the face;

- Hair, clothing, hands or anything else should not cover the face area;

- It is not permitted to wear sunglasses, glasses with transparent lenses are only allowed to be used;

- There shouldn't be any other people in the room;

- It is prohibited to leave the workplace during the examination;

- There shouldn't be voices or noise in the background, it is most preferably if the exam is held in silence;

- The exam should be passed in a browser with a full screen window, you cannot switch to other applications (including other browsers) or minimize the browser, you cannot open third-party tabs (pages);

- All programs that use the webcam should be disabled on your computer, except for your browser;

- Ensure a stable internet connection;

- The materials and contents of the examination may not be recorded in any way or passed on to third parties;

- Do not use any audio, visual or any other prompts;

- If an attempt to deceive the system or the proctor is detected, the results of the examination are invalidated.

One or more participants can be present during the session (proctors or observers). At the same time, the session can be run without any other participants, or with the participation of a virtual proctor. In this case, the evaluation of the exam credibility will be carried out either by the proctor once the session is over (based on the protocol) or by the system automatically.

## 5. Equipment Check

Computer and Internet connection check that allows identifying possible technical problems before the start of the exam is conducted at the start of each session. The check is run automatically; the user's interference is needed only in case problems are identified.



Picture 3 — Equipment check

Equipment check stages are the following:

1) At the browser compliance check stage, the system checks whether your browser complies with the minimum requirements of the

proctoring system; browser window should be switched to full-screen mode.

2) At the webcam check stage, you should enable camera access in the browser, if such a request is made. If the camera works correctly, then you will pass the webcam check.

3) At the microphone check stage, you should enable microphone access in the browser, if such a request is made. If the volume of your microphone is enough, then you will pass the microphone check.

4) At the screen check stage, you should give access to the entire screen. If access is given only to a part of the screen, or an additional monitor is installed, then the check will result in an error.

5) The connection test phase checks that a web socket connection to the server is possible. The test will be successful if this type of connection is not blocked.

6) The connection test phase checks that video traffic can be transmitted on your network using WebRTC technology. The test will be successful if the traffic is not blocked.

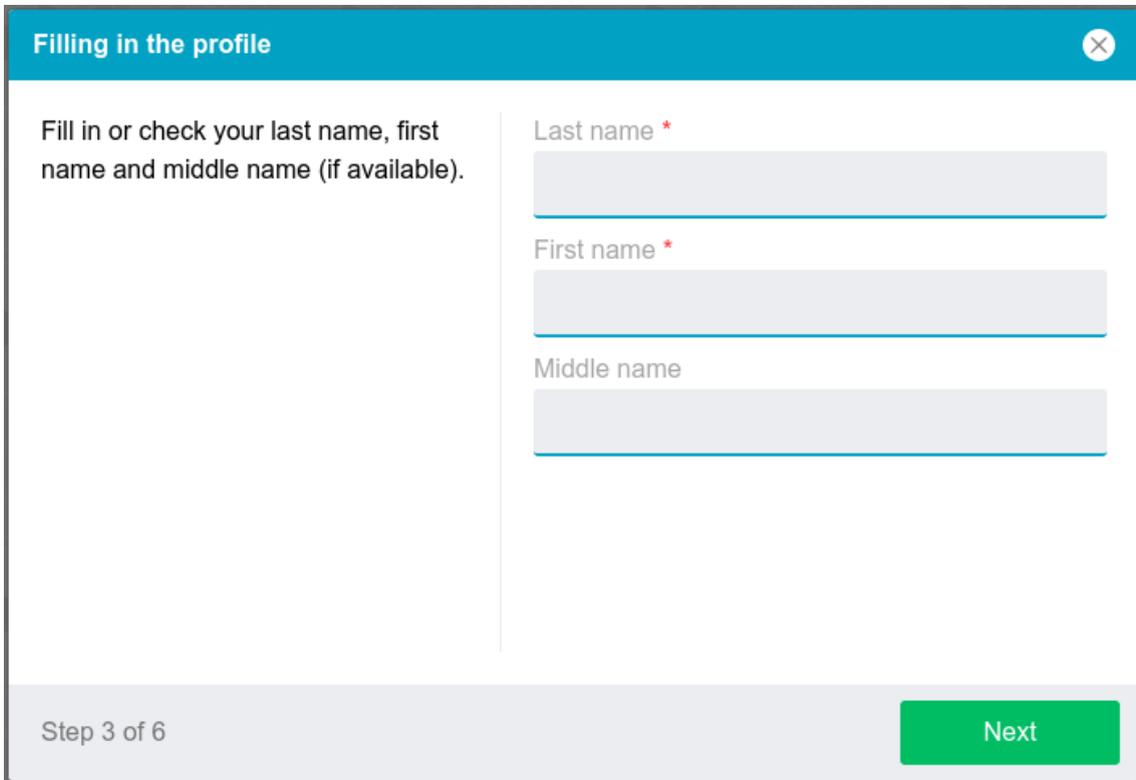Potential issues and their solutions are listed in Table 2.

Table 2. Potential Issues and their Solutions

| Issues | Solution |
|---|---|
| 1) Browser check error | Your browser does not comply with the minimum requirements of the proctoring system. Install the latest version of Google Chrome and try again. |
| 2) Webcam check error | Your webcam is not working or is being blocked by other computer applications. Check whether your webcam is working properly in the browser; close other applications that might be using your webcam; |

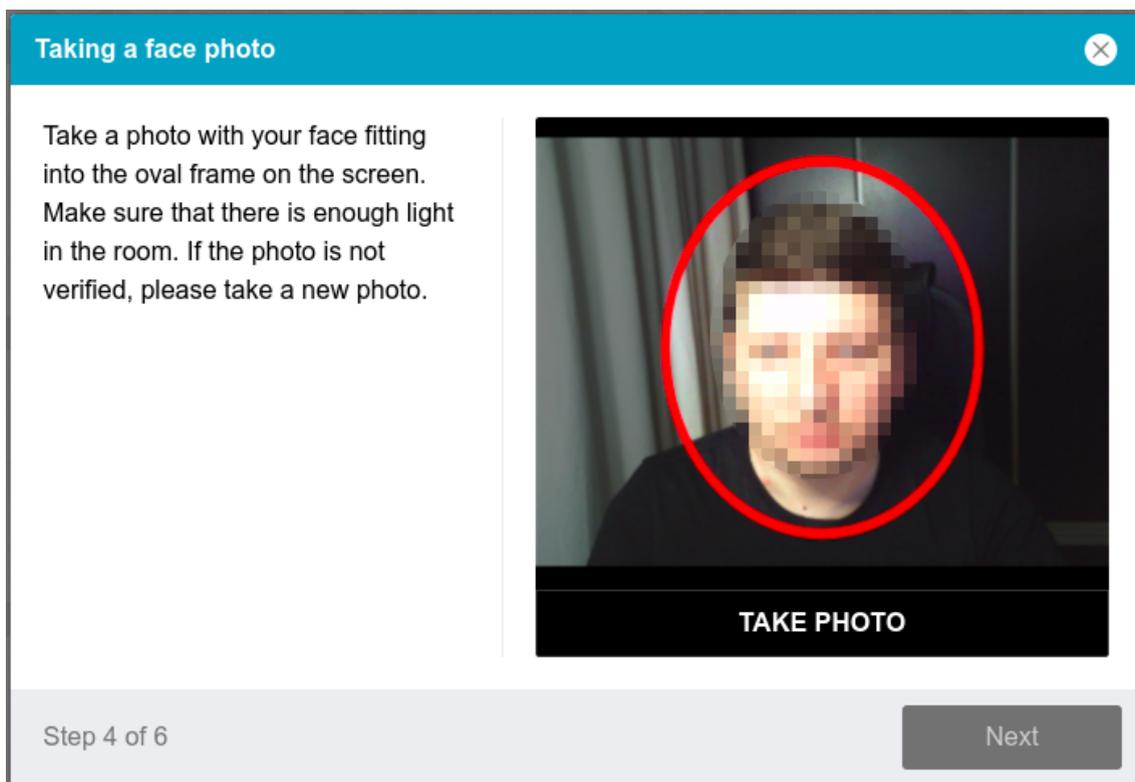| | |
|---|---|
| | disable antivirus; if there are several webcams on your computer, choose the correct one in the browser settings. If the webcam is working, but the error is still present, try to refresh the computer. |
| 3) Microphone check error | The microphone is not working or disabled in the settings of your computer (operating system). Increase the volume of the microphone or plug another microphone and then choose it in the browser settings. Check whether your microphone is [working properly in the browser](#). |
| 4) Screen check error | Access to the screen is disabled; your browser does not support screen sharing; you give access only to a part of the screen. If the browser requests you to enable screen sharing, do so; otherwise, refresh the browser. |
| 5) Network connection check error | The web-socket connection to the server cannot be established. Extensions in the browsers, such as AdBlock or VPN can cause the problem. Using a proxy server can also cause the problem. Disable all browser extensions or try a different browser and do not use/disable proxies or VPNs. |
| 6) WebRTC check error | Your computer or your internet provider blocks the transmission of video traffic using WebRTC technology. Your bandwidth must be at least 256 kbps (send and receive), also TCP/UDP 3478 ports on your network and workstation (firewall) should not be blocked. A VPN connection use may also cause issues. Please check your [network speed](#) and [port blocking](#) and disable VPN. |

## 6. Filling in the profile

If your name is not in the proctoring system, you will need to fill in your full name at the appropriate step (Picture 4).



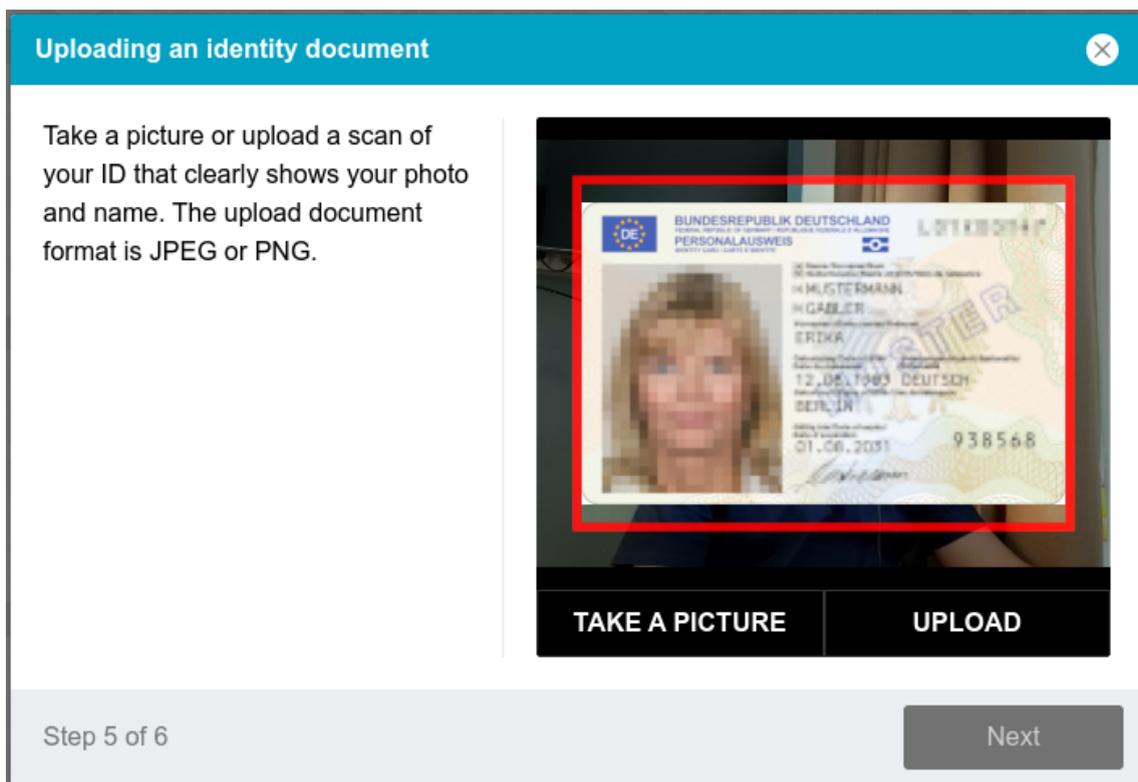Picture 4 — Filling in the profile

## 7. Face Photo

The proctoring system may ask you to take a picture of your face using a webcam. The face photo stage is a part of an identity verification procedure (Picture 5).

Picture 5 — Taking a face photo

## 8. ID Photo

The proctoring system may require your identification document (ID), which should be done via webcam or uploaded to a JPEG file up to 5 MB from your PC. In case a scan is uploaded, the image should contain only the side with your photograph placed horizontally. The document is automatically checked by the proctoring system to be correct and clear, and the ID photo is verified with your face. An ID photo is the part of your identity verifying procedure (Picture 4).
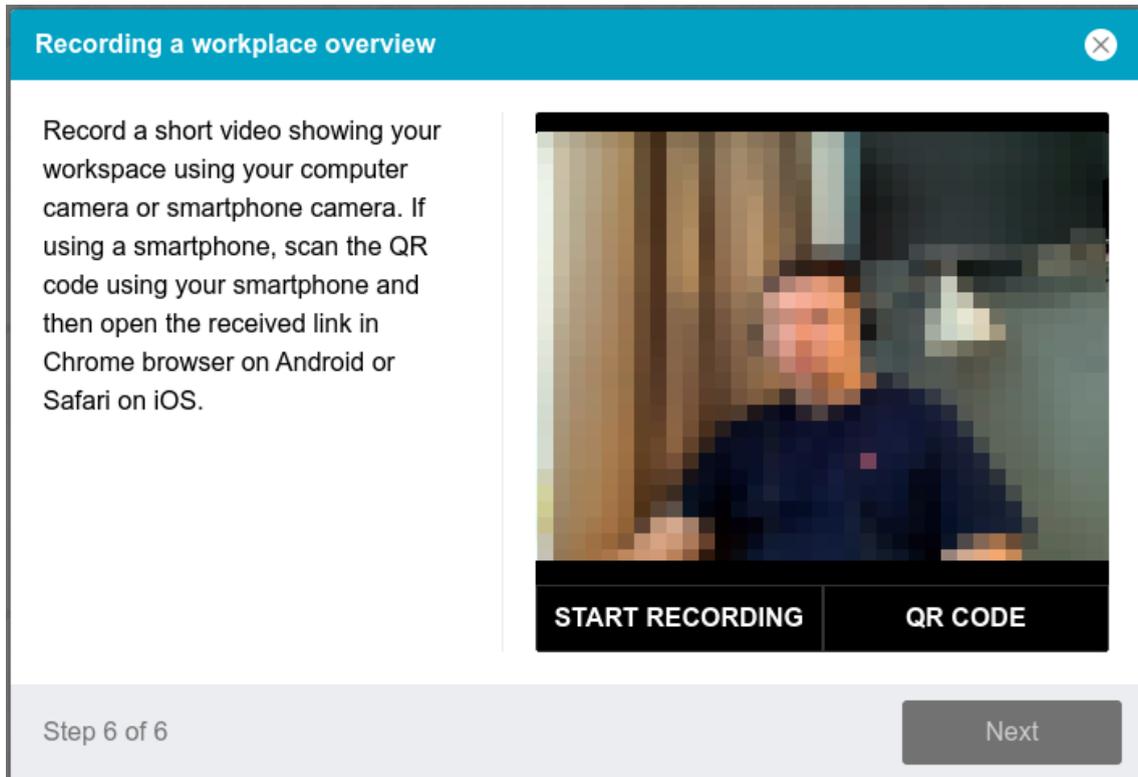
Picture 6 — Uploading an identity document

## 9. Recording the overview of the workplace

The event can involve filming an overview of the workplace before the event starts. There is a separate step for this (Figure 7).

Follow the steps below to make a recording:

1. Make sure that the camera picture is displayed on the screen.
2. Press the "Start Recording" button.
3. Within 60 seconds slowly rotate the camera as if you were taking a panoramic picture, so that you can see the entire workspace and the room.
4. If you manage to show the entire room faster, press the "Stop recording" button.
5. The recording you just made will start playing back and watch it.
6. If the recording clearly shows the whole workplace and room, press the "Save" button.
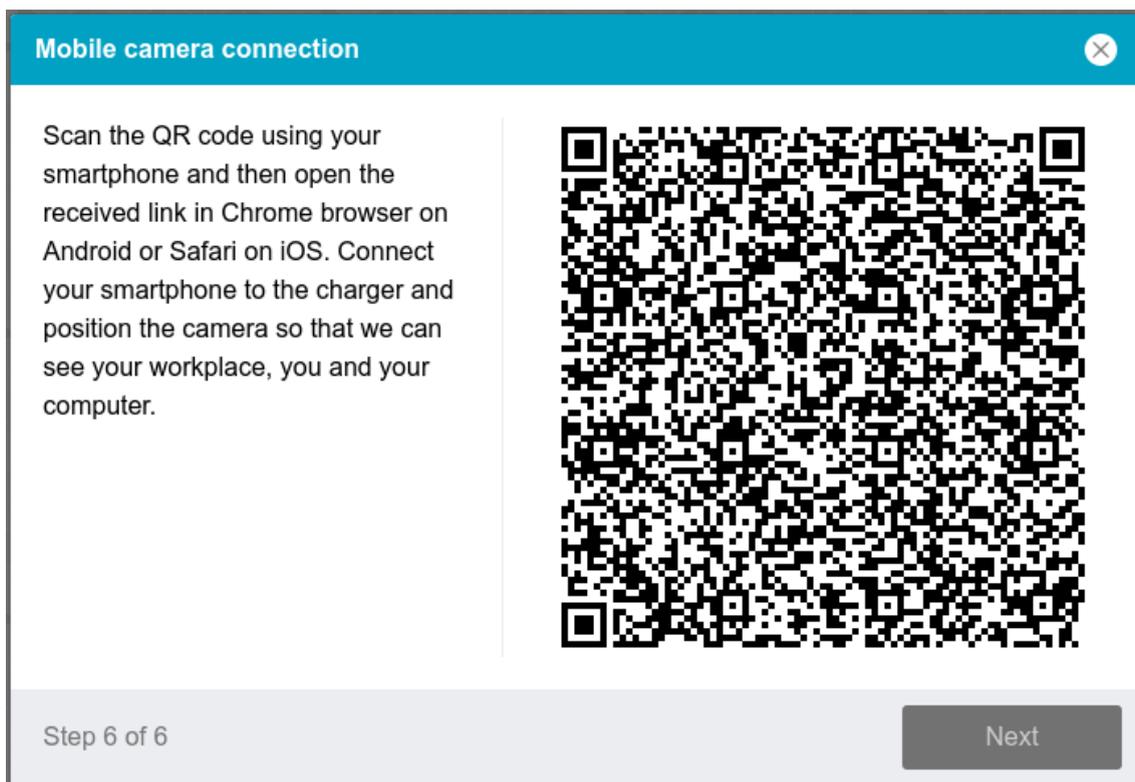
7. If the recording fails, press the "Retry" button and start the recording again.

8. You can record the overview with your smartphone camera by pressing the "QR code" button, scan the code with your smartphone camera and open the resulting link in the browser on your smartphone.



Picture 7 — Recording the workplace overview

## 10. Mobile Camera Connection

Sometimes you may need to connect your smartphone camera for a better view of the workplace and the room during the event, to do this you need to scan the QR code displayed on your computer screen with your phone and then open the link obtained from the code in the browser on your phone (Figure 8). If the camera has been successfully connected, you should see "Camera successfully connected" on the screen of your phone.
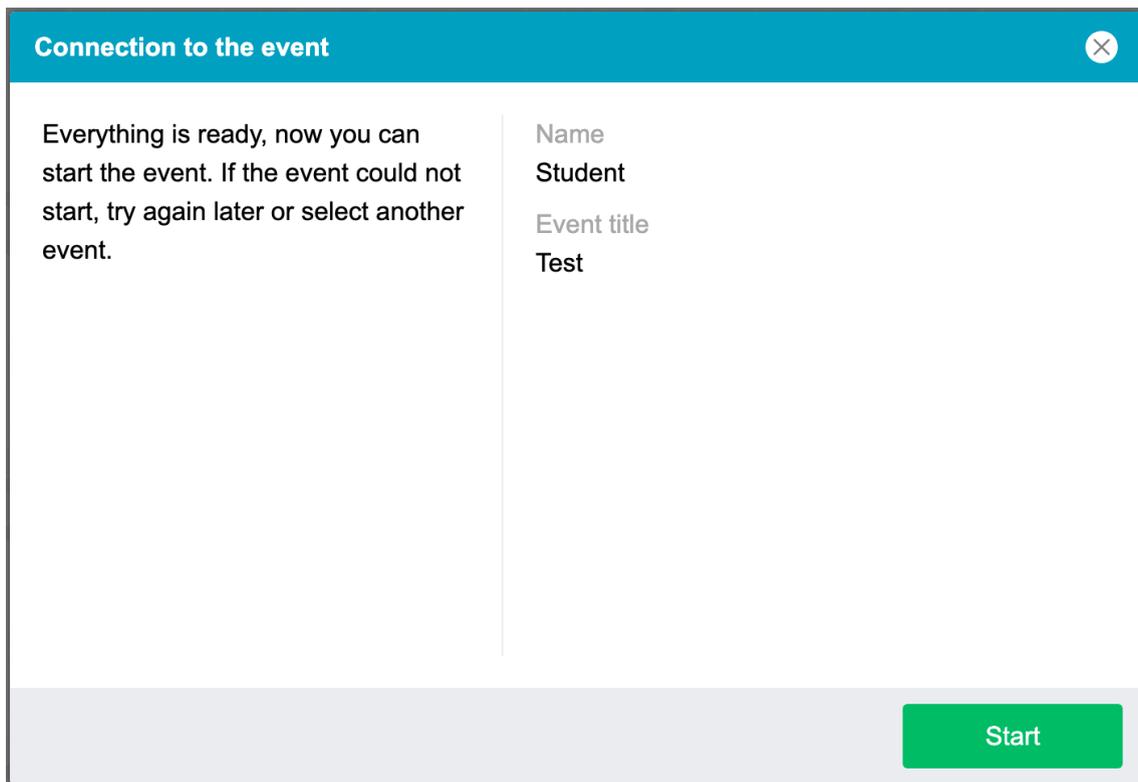
Picture 8 — Mobile camera connection

A QR code on Android needs to be scanned using the standard "Camera" app or the "QR & Barcode Scanner" app. To do this, scan the QR code, copy the resulting link and open it in the **Google Chrome** browser.

On iOS, you should use the standard camera app and open the resulting link in the **Safari** browser.

## 11. Start of the event

Before you begin an exam (test) task, a dialogue is usually displayed with information about the event and a "Start" button (Figure 9). If the time of the event has not yet arrived or has already passed, or if there are no available proctors at the moment, a message will appear. If all is well, the proctoring will go into supervision mode and the exam (test) page will open.
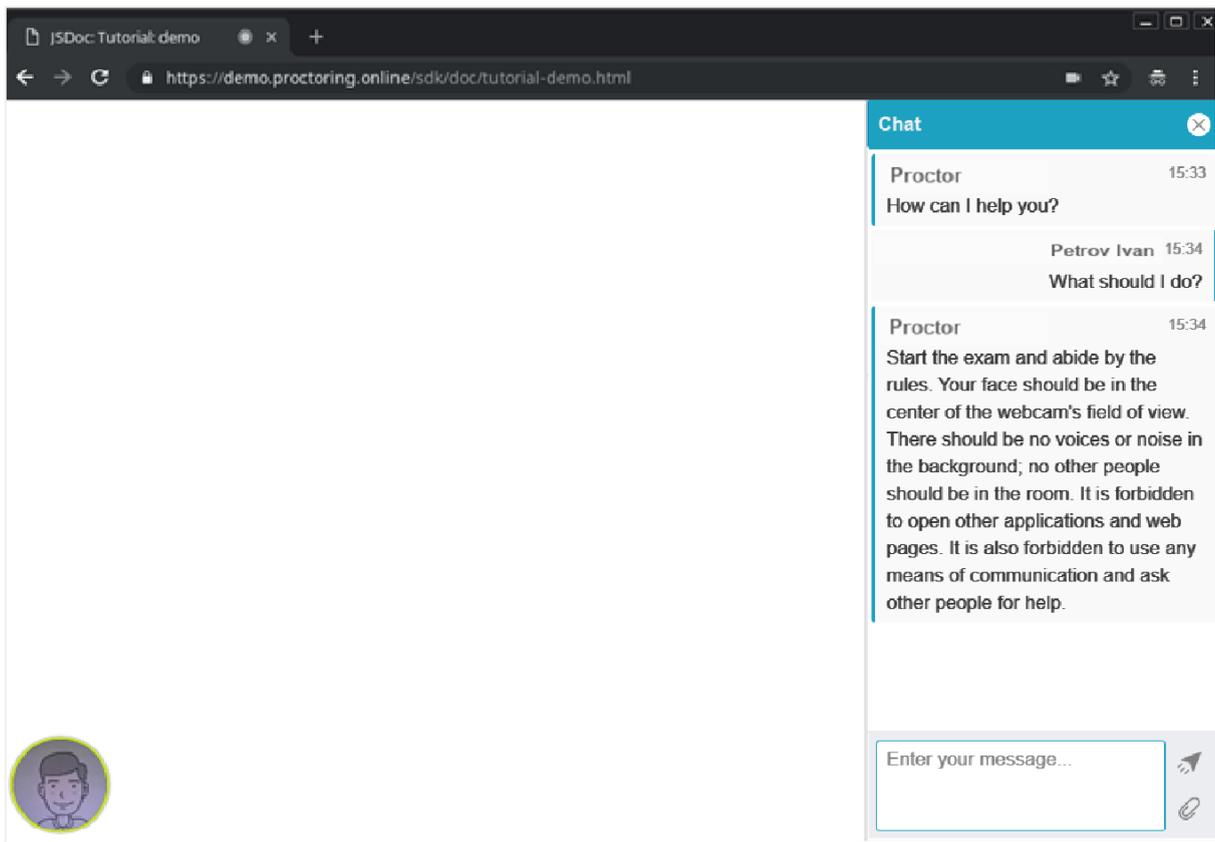
Picture 9 — Connecting to the event

## 12. Taking Exam

Once the previous steps are successfully completed, the exam page will open. The exam (test) page opens in the central part of your window, and a small circle is displayed in the lower left corner with the image from your camera. During the proctoring session, you can communicate with the proctor watching the test procedure, if they are online. Chat with the proctor opens on the right side of the screen. In some cases, the proctor may connect via video and audio, then video from the proctor's camera appears above the chat.

During the exam, make sure that your face fits completely into the circle and is well-lit. The circle frame may turn yellow or red, along with appearing notifications next to it, if some of the assessment rules are not followed or broken.

Picture 10 — Proctoring Interface during exam

During the event, make sure your face is fully placed in the circle and well lit. Notifications may appear next to the circle if any rules of the event are not followed.

Clicking on the circle with the camera will open a menu where there may be useful tools for passing the event.

## 13. End of Exam

Once the tasks provided by the assessment are completed, finish your exam inside the LMS. Once the exam is completed, it will no longer be possible to restart it. In case of violations and infringements of exam rules, the proctor has the right to cut the session off, then the exam procedure is stopped, and its results are canceled. Also, the completion occurs automatically after the end of the time allotted for your exam.

All audio, video and text messages, as well as recorded violations, are stored in the system and linked to your proctoring protocol. After a while, the results are checked and the final proctoring conclusion is given, which is transmitted to the LMS.