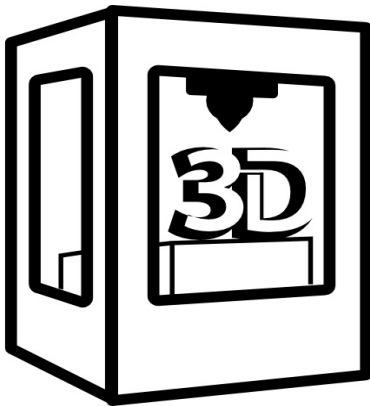


## WEB-BASED 3D EDITOR FOR 3D PRINTER MANUFACTURER



### OBJECTIVE

*A manufacturer of 3D printers wanted to facilitate 3D printing process for the users who purchased their devices. The users needed an easy way to customize their models through a web-based 3D editor and send them to the printer through cloud. The users should also be able to register their printers online, select the model from a library of 3D models or upload their own model and customize or combine them. The customized model should be then sent to printer through cloud.*

### CHALLENGE

The client was about to launch a new 3D printer on the market and was looking for an online web system to enable users prepare their models and send them for printing. A limited budget and short deadline required high-performing team and selection of an optimal solution to meet the project goals.

### SOLUTION

Intetics suggested building a 3D editor based on one of the available solutions and integrating it into the customer web system. Java was suggested as backend technology, JavaScript and WebGL were used for frontend. These technologies allowed efficient integration of the components into the current client's infrastructure. The system was expected to work in different browsers and be able performing main editing operations on the existing or uploaded STL files.

The modified 3D models could then be saved in cloud or downloaded to the user's PC.

The models could be then sent to printers that are connected to customer's cloud.

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### RESULTS

Usage of the ready solution as a basis for the project and contribution of an experienced team of Java and 3D engineers allowed integrating the solution into the customer's infrastructure in short time frames. The customer was able to meet 3D printers start selling deadline.

The solution was integrated into the existing infrastructure, allowed registered users using the editor, select models from a

library of predefined STL files and upload the new files.

The users can upload their own STL files, select the models from the existing 3D library or create a new model from basic components.

The models can be combined or modified. They can be later stored on user-specific cloud storage or downloaded to user's computer.

The final model can be sent to the cloud-connected device of the user for printing.

The 3D editor became a key component of the client's offering for their users and is used by most of the 3D printer buyers in their regular operations.

