

# Development of a 3D printer software solution

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## Summary

**Context:** Start up Schoggi Print developps a 3D chocolate printer.

**Problem:** Its usage is complicated and time-consuming for non-users of 3D printing.

**Solution:** Develop two user-friendly interfaces and suggest free 3D design software.

## Introduction

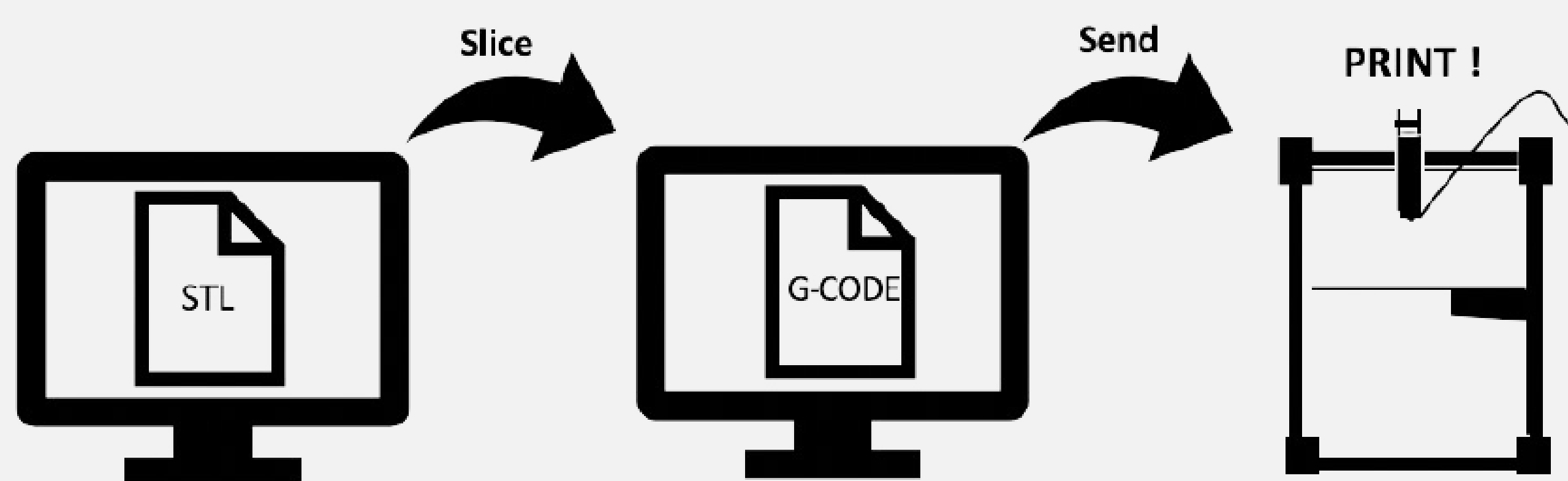
- **3D printing** exists since 35 years and has become more popular nowadays.
- It is used in **many domains** such as medical, industry, army, space and even more !
- Schoggi Print offers to artisanal **chocolate makers** a 3D printer of chocolate.
- Starting from open source software, we **customize** and adapt **two interfaces** for the customers.

## Development

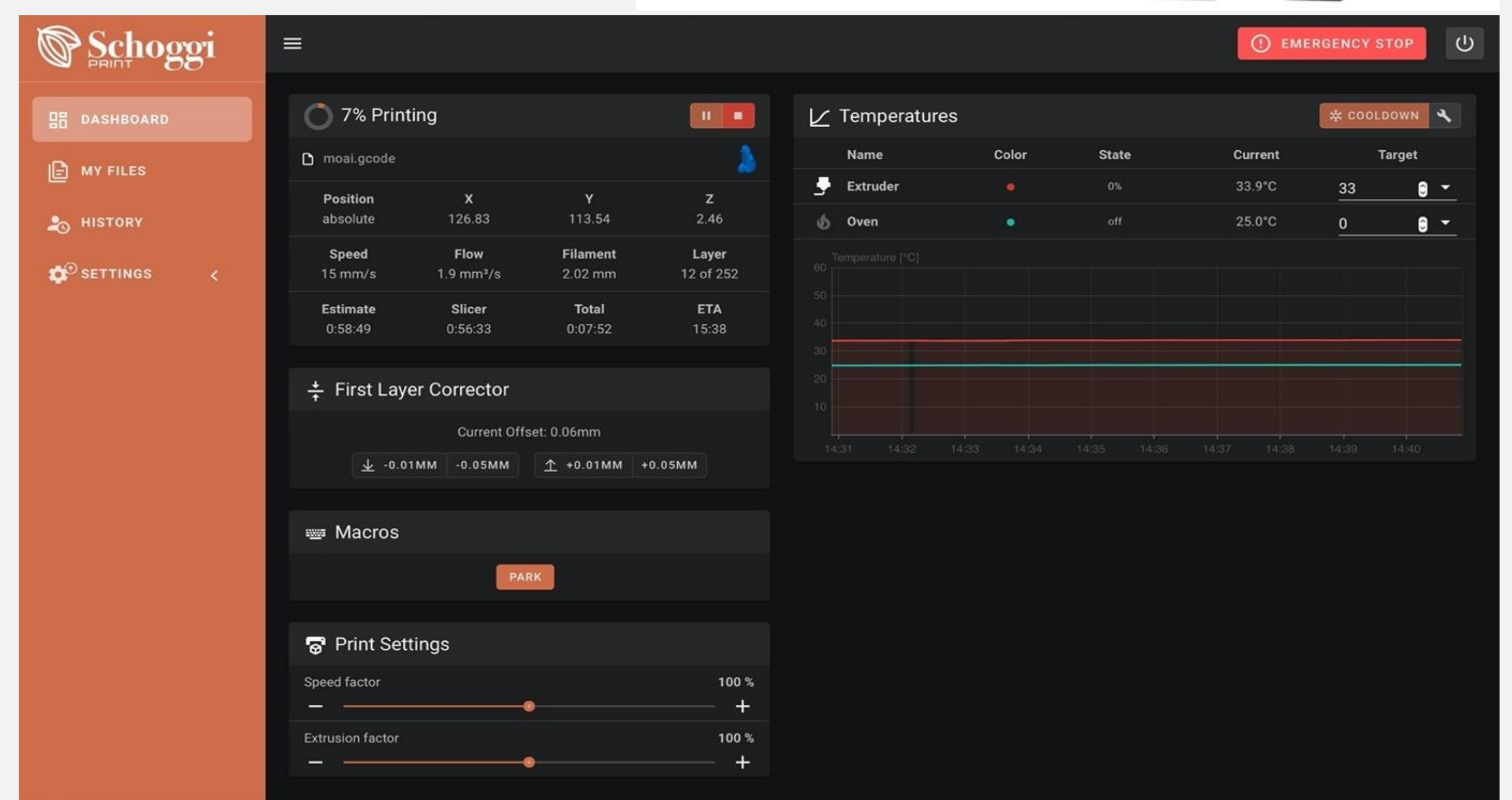
- We custom the interfaces with css language and add functionalities in python on the touch screen.
- The scripts calculates the temperatures over the time and display on the screen if they fluctuate abnormally or not.

## Workflow

- Design the 3D model with a software suggested by Schoggi Print (STL format).
- Slice your file to send it to the printer (G-Code format).
- Control the printer with either the touch screen or the web application.



## Results



## Technologies



## Conclusions

- The printer is **simple** to use and the interfaces are more easy to **understand**.
- We have **verified** it by **asking** some **chocolate makers** to test it.