

Sublimation printing

Presentation made by
Techniczne Zakłady Naukowe
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About us

Techniczne Zakłady Naukowe

Techniczne Zakłady Naukowe in Dąbrowa Górnica is biggest technical school in the region. We have more than one thousand students and over 100 teachers. We educate students on following subjects that we currently have in our offer: IT, programming, electronics, robotics, electric, automatic, mechanic, advertising. We put much effort on great quality of education.

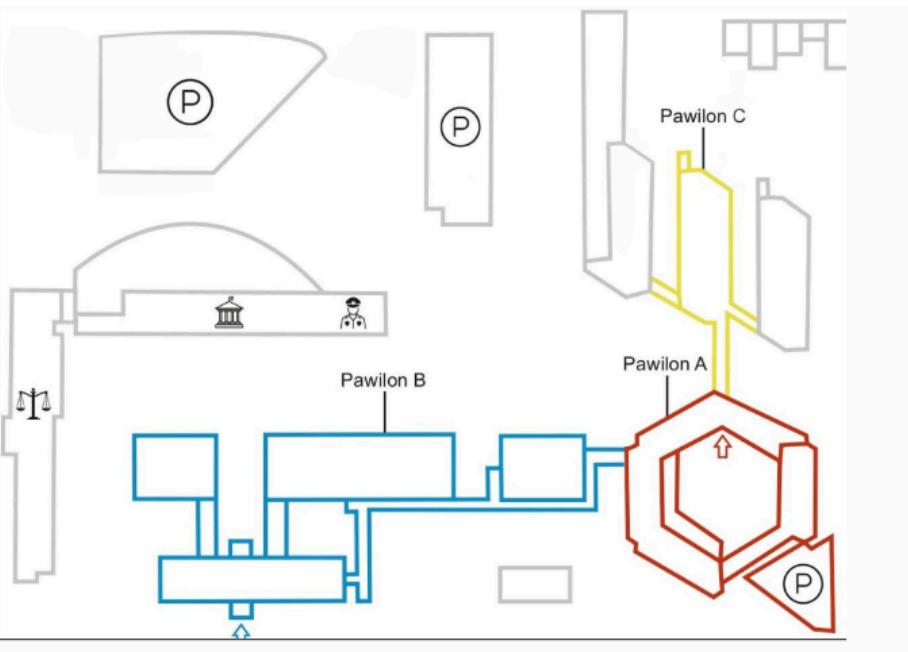
Our Learning Profiles

Programist
Advertising
Automatic
Electrician
IT
Robotics
Electronic
Mechanic

Map of our school

Map of our school

Tour around the Pavilions



And here few pictures of our school - on the fist picture is our swimming pool, then english class, below there is a technical class for automatics and robotics. On the last picture there is a view of our school captured by a drone.



Our city

place where we live

its Dabrowa Gornicza, the city promotional slogan is “Dabrowa Gornicza, city for the active ones”

our website: www.dg.pl



- 115 955 people
- since 1916
- a lot attractions for :
 - tourists and residents
 - youth and seniors



📍 **Palace of Culture**



📍 **Haller Park**

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Here you may see our location on a map of Poland

Population of Dąbrowa Górska is 115 955 people

Dąbrowa Górska was established in 1916

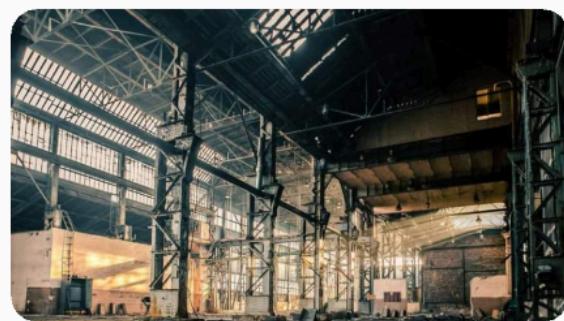
In the city there are plenty of attractions for tourists and residents, youth and seniors may find something they will enjoy.

Biggest attraction is our Palace of Culture, Haller Park in the city center as well as 4 lakes we called them Pogoria lakes. The most touristy of them is Pogoria 3. Close to Dąbrowa Górska there is also a desert, biggest in Europe - Bledowska desert.

Latest attraction, established just few years ago and still in process of final completion is Fabryka Pielna Zycia - in literal translation - a factory full of life.

And it is actually an old factory that will be filled with life.

A factory that will be filled with life.



the factory was changed into a place where people met to spend time together

And now..



It's time for a lesson

Sublimation printing

Sublimation printing is a simple and effective digital printing technique used to transfer graphics and images onto a variety of polymer surfaces. It works very well on a variety of materials such as T-shirts, mugs, bags, pillows and more.

Sublimation is a relatively eco-friendly process because it does not use harmful solvents or chemicals.

It is worth noting that sublimation printing works best on materials made of polyester or containing a significant amount of it, as the sublimation ink bonds to the polyester fibers.

With the sublimation process, you can get all the colors and photos with high quality.

The sublimation printing process itself is relatively simple.

Stages of sublimation printing

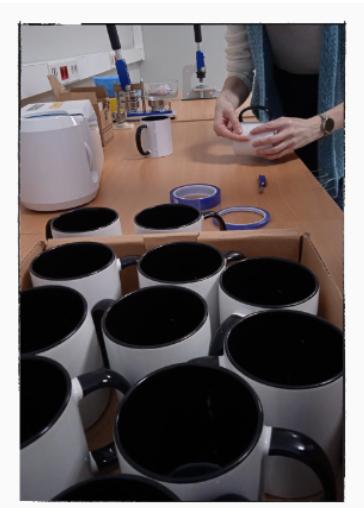
1. The first step is to prepare the pattern or image to be printed on the material.

The design is printed on special paper using a sublimation printer. The sublimation ink contains dyes that sublimate, that is, change from a solid to a gaseous phase, when exposed to heat.



2. The target material must be properly prepared.

For garments, this may mean cutting and stitching the fabric into the target shape. In the case of mugs or other ceramic items, it is necessary to wash and prepare them for the process.



3. The printed sublimation paper is applied to the target material. It is then subjected to a hot press or calender. The high temperature and pressure cause sublimation of the ink, which transfers from the paper to the surface of the material.



4. After transferring the ink, the material is cooled, causing the ink to condense back into a solid on the surface of the material. The print becomes permanent and resistant.



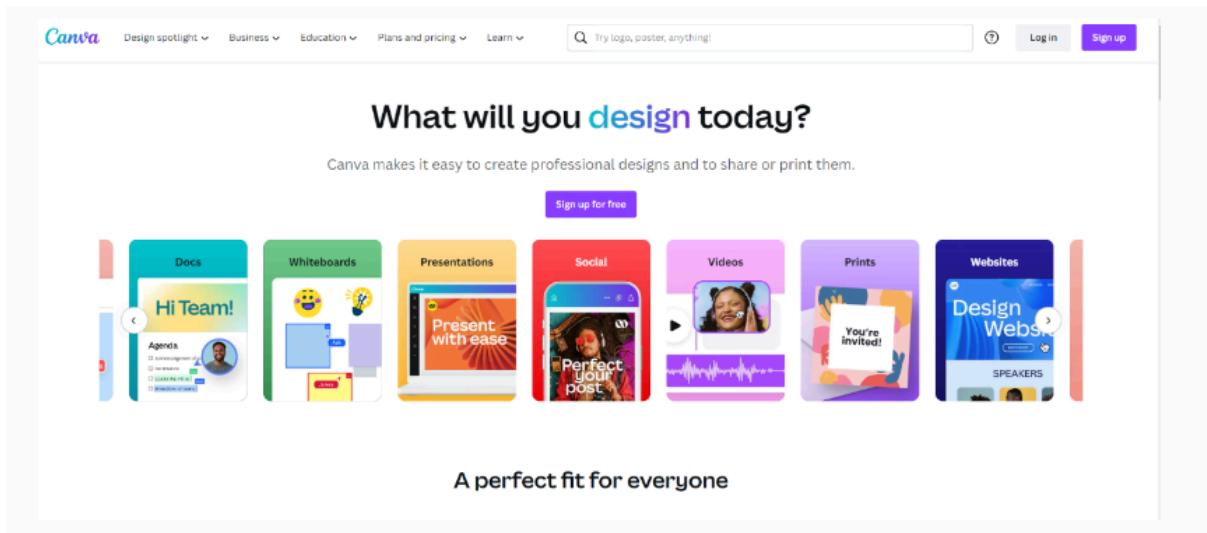
Stages of making graphics for mug print

Where we should start?

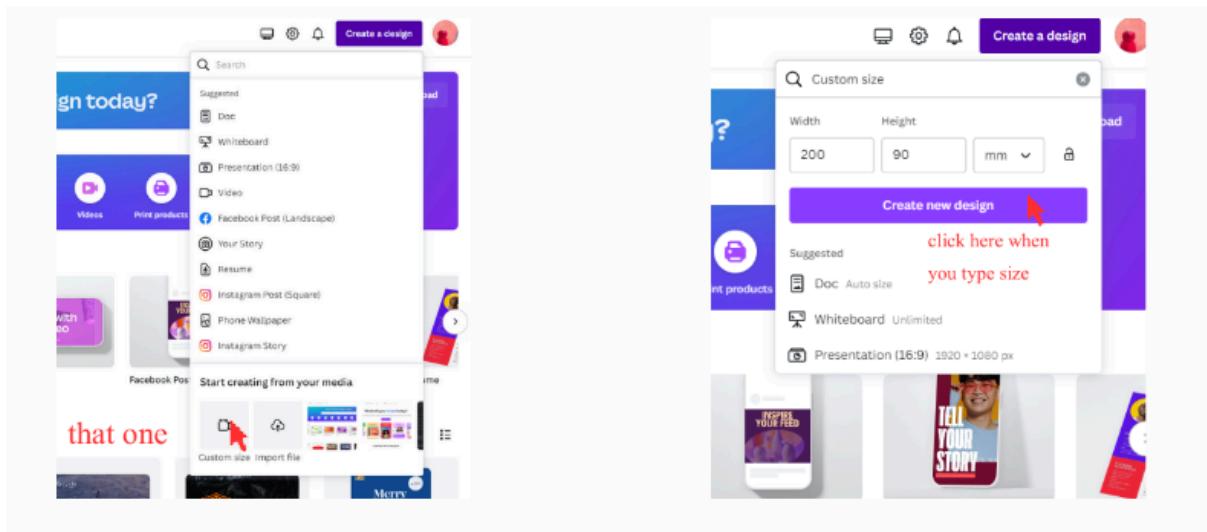
If we want to create graphics for a mug print, we must first use an appropriate program.

For the graphics on our mugs, we used Canva, which is free and can be used in a browser online.

- 1. First find Canva website on browser**
- 2. Open Canva and sign up (or log in if you have profile)**

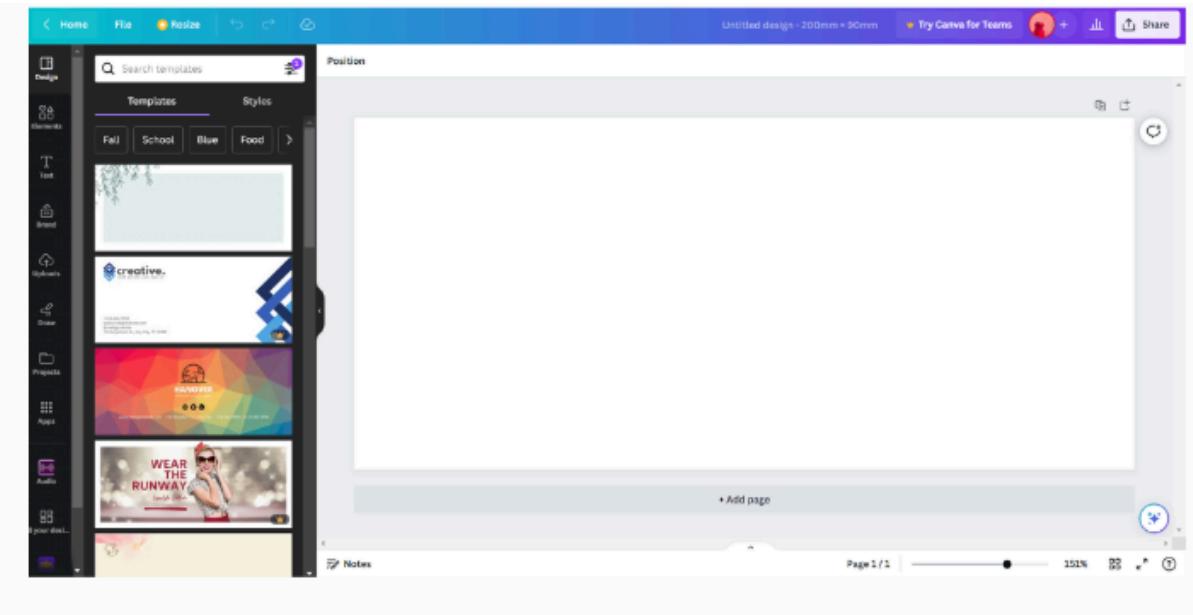


3. When we sign up we're gonna see this, that's our main menu.
4. Let's create our design for a mug !!
5. Next you're gonna see drop-down menu where we must choose a type of design (we choose custom size and we type width 200 and height 90 of course in millimeters).

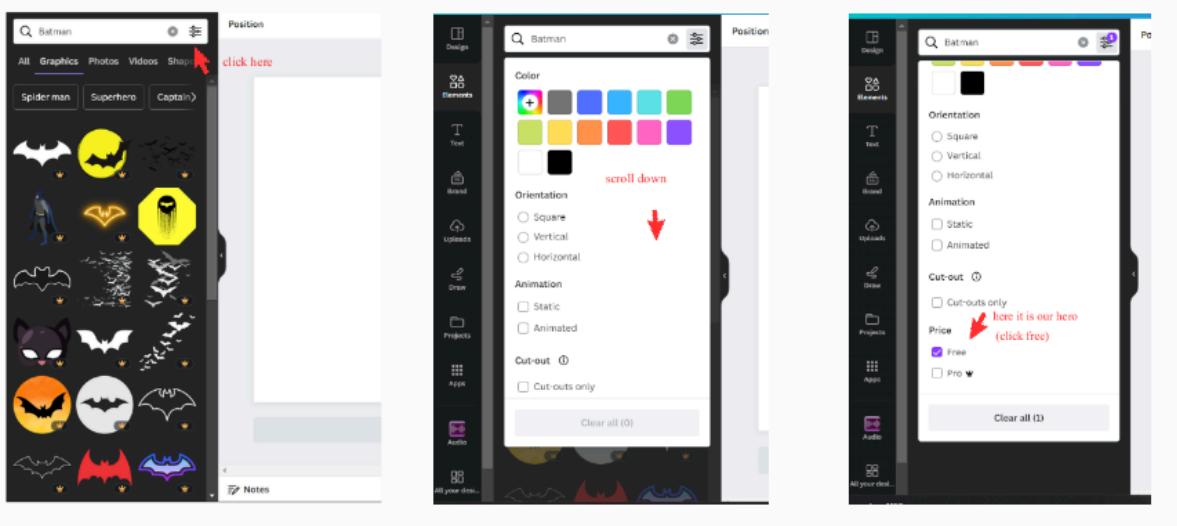


6. So now we have our project.

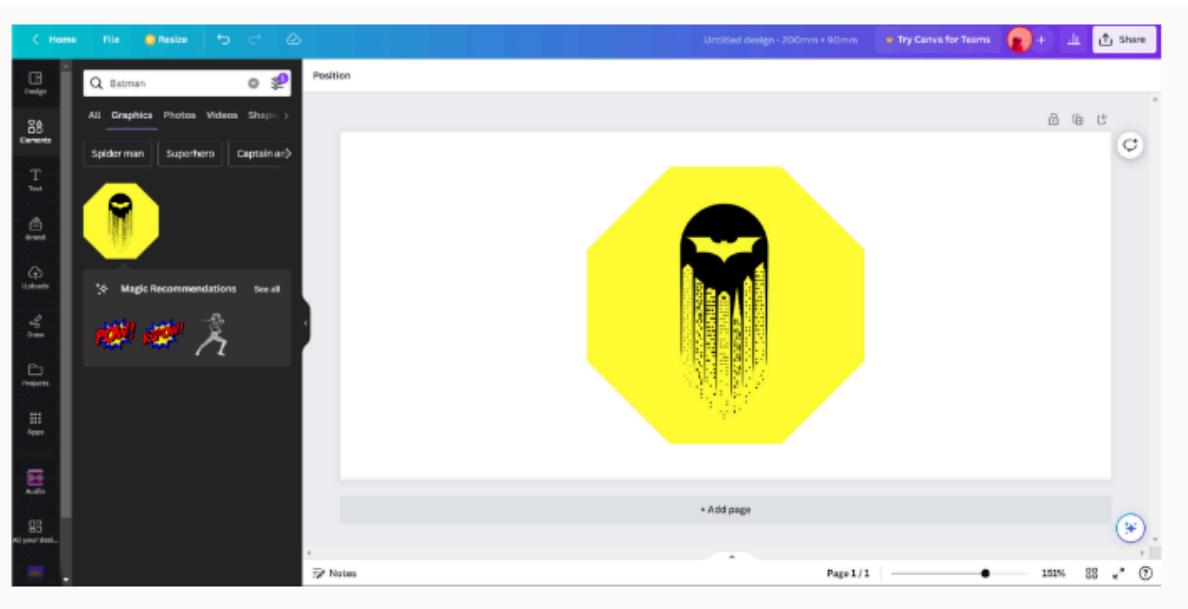
We can choose something from „Templates” (you can find here ready-made projects) or „Elements” (mini graphics, photos and stickers)



7. I'm gonna choose something with Batman.
8. If you see this mini crowns that means that you must pay for this graphics (we don't like that) (but if you have money, go for it)
9. If you are as poor as me I have a protip for that. You can choose setting that shows you only free graphics



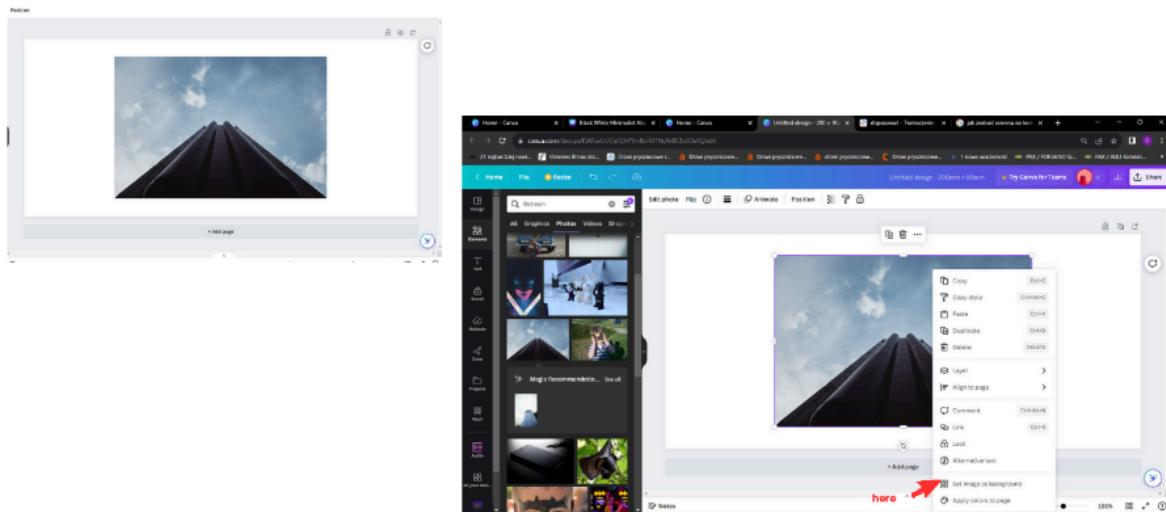
10. Now we see all graphics that is for free and associated with Batman. Let's add this little friend.



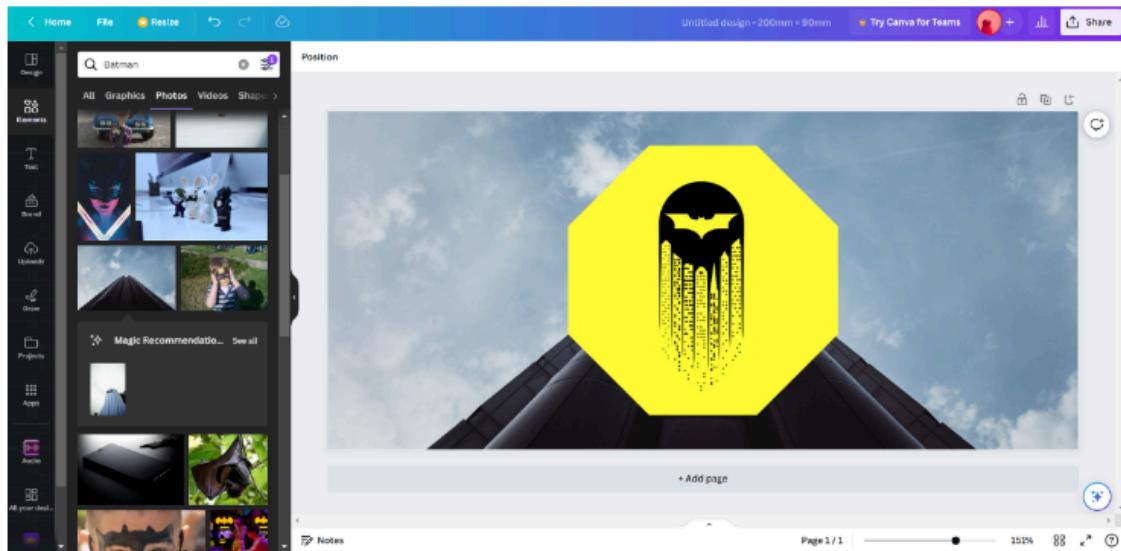
Now we can choose some photo as the background for our Mug Print.

11. Now we must fit the photo for our background.

Let's click on the photo with the left mouse button. When you see drop-down menu choose „set image as background”



12. Now we have this.

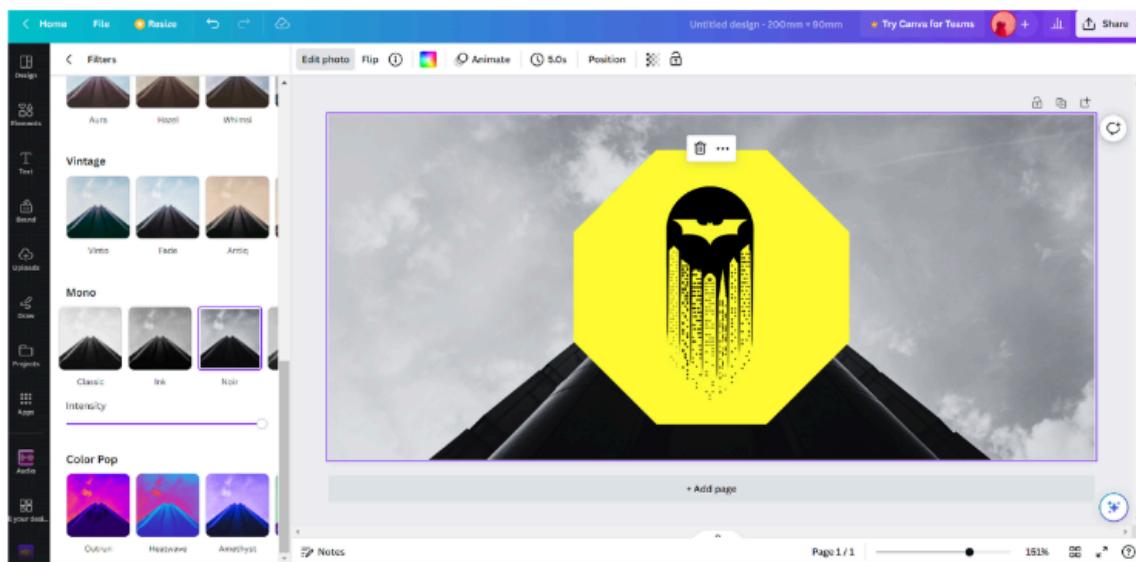


We can see our design with selected picture and the background

13. Let's add the filter for the photo in our background.

We must click two times at the photo and next click on the „Effects”. Now we see „Tools” and „Filters” click on the filters and we choose the one that we want on the our photo.

I chose the „Noir” one.

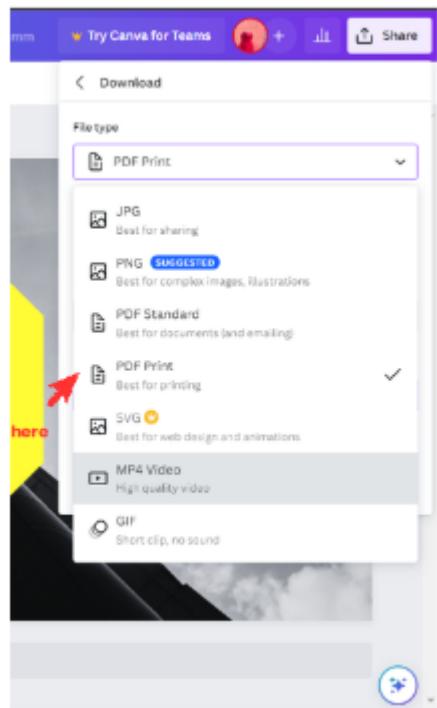


14. It's done. (If you want you can also add a text or different graphics)

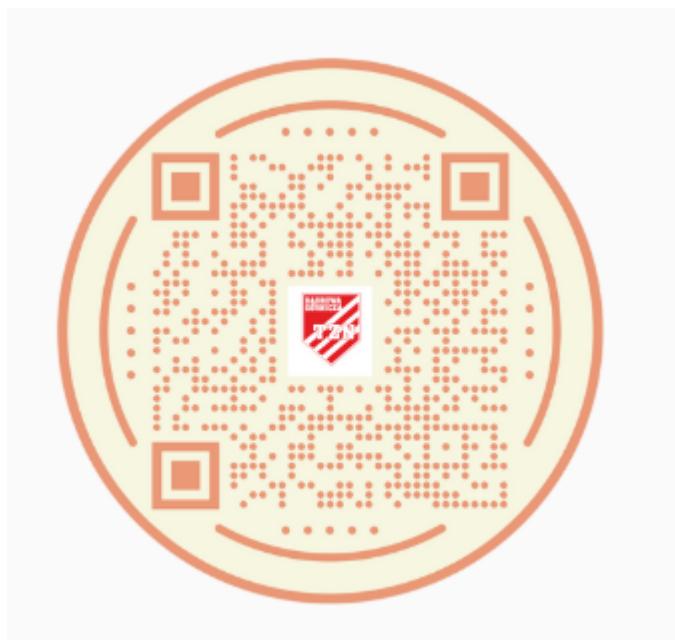
15. Let's save our project. We must click „Share”. When we see drop-down menu we must click „Download”

16. From the options we choose PDF one (is the best for Mug Print) and we click „Download”.

Now our Mug Print is ready.



You can scan our QR code and check what we do in our school



Thank you.

