Research Project

User manual

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## Necessities

Check out the Installation manual for the source code and how to set up the model.

* You need a laptop/pc with python installed
* Some way to draw a wireframe (drawing tablet, pen and paper, …)

## Wireframe to code

As an example, I will draw a wireframe using my drawing tablet and illustrator. I’ve tested out drawing on paper and it works as good, but it’s quite tedious because you must scan the image to your computer.

If you need more information on the library, I used to predict these images check out [Detecto](https://detecto.readthedocs.io/en/latest/index.html).

<https://detecto.readthedocs.io/en/latest/api/index.html>

### Conventions

I used certain conventions when creating the dataset. This way the model has an easier time detecting elements. These are the conventions I used. When drawing your own wireframe make sure that you use similar styles.

Diagram

Description automatically generated

### Resolution

The images used in training were 640x640px, this is the minimum resolution to use. The bigger you go the better the model will predict the right element. When using a higher resolution make sure you also increase the stroke.

For this example, I will use 2560x2560px (640 \* 4).

A screenshot of a computer

Description automatically generated with medium confidence

### Drawing a wireframe

When drawing elements make sure you don’t draw them too sloppy and that there is enough space between the elements else the prediction will mix them up.   
Then save the image as a .png or.jpg

Shape

Description automatically generated with medium confidence

### Wireframe to code

To convert the created image to html/css code you just need to run the python script predict.py with the correct parameters.

**-i --input**  Input image we want our model to convert.

**-n --name**  The output folder name

**Example**

Text

Description automatically generated

A picture containing graphical user interface

Description automatically generated

Text

Description automatically generated

A picture containing diagram

Description automatically generated

## Extra dataset (optional)

In the installation manual there was an option to add your own data with different elements. Then you created a new model with different labels these labels need to be changed in de predict python file as well.   
  
On line 223 when we load in our weights. We add a list of labels change these to the new labels you created when adding bounding boxes to your dataset.

Graphical user interface, text, application

Description automatically generated