
Exampel 2: How to use functions to create all files for a made-to-measure shirt

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written by Christina Hein, 11/2019

initial state

```
close all; clc; clear all;
warning('off','all');
```

take measurements

Open dimensionsheet for measurement description and note

```
open('Dimensionsheet.pdf');
```

create struct of type 'human' for individual measurements

```
% option 1: direct function input
human_example = create_human_from_measurement('Sam Sample','female',
    33, 23, 40, 87, 63.5, 90.5, 58, 24.4, 15);

% option 2: input help
% human_example = create_human_from_measurement;
```

define shirt properties

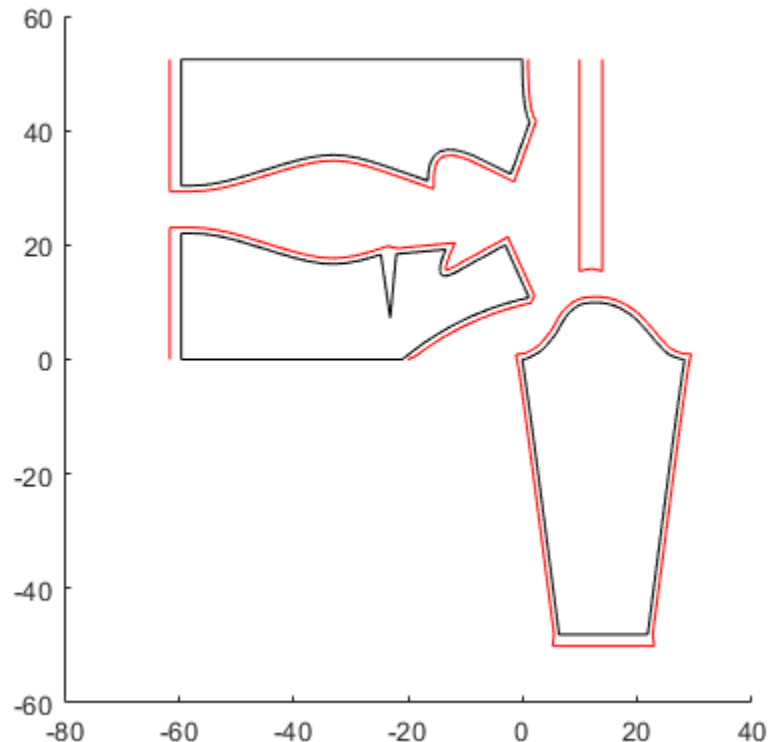
```
fit = 'tight';
sleeve = 'long';
```

a) prepare internal fabrication

approx. 3 hours personnel costs for student assistants ~ 45 Euro material costs for 1.5 m fabric ~ 15 Euro
estimated costs: 60 Euro (without machine costs)

```
pattern = shirt_intern_production (human_example, fit, sleeve);  
  
plot_basic_pattern(pattern);  
plot_production_pattern(pattern);  
% plot_all_sizes(pattern); % optional: visual check of pattern
```

A folder with the name 07-Feb-2021_Production_Files_ip_SamSample was created with all files for your chosen fabrication type.



b) prepare internal cutting and external sewing

cutting: approx. 1/2 hour personnel costs for student assistants ~ 8 Euro sewing: Tailor ~ 40 Euro material costs for 1.5 m fabric ~ 15 Euro estimated costs: 63 Euro (without machine costs)

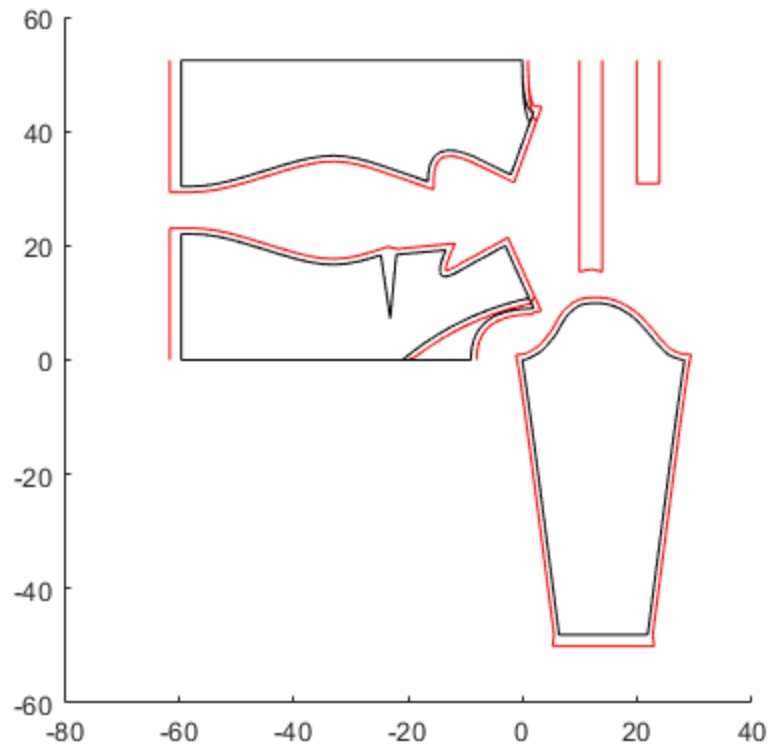
```
shirt_intern_cutting_extern_sewing(human_example, fit, sleeve);
```

A folder with the name 07-Feb-2021_Production_Files_ices_SamSample was created with all files for your chosen fabrication type.

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Please send the cut parts to the tailor (including return postage) or hand them in personally.

A label with the adress and a order letter was created. The opening hours are Thu-Fri 9:00am - 17:00pm.



c) prepare external cutting and sewing at TWO suppliers

cutting: Waldman Textech ~ 120 Euro sewing: Tailor ~ 40 Euro material costs for 2 m fabric ~ 20 Euro
estimated costs: 180 Euro

% Note: please install the DXFLib (Grzegorz Kwiatek, 2020) from MATLAB Central File Exchange:

% <https://www.mathworks.com/matlabcentral/fileexchange/33884-dxflib>

```
shirt_extern_production_two(human_example, fit, sleeve);
```

A folder with the name 07-Feb-2021_Production_Files_ep_two_SamSample was created with all files for your chosen fabrication type.

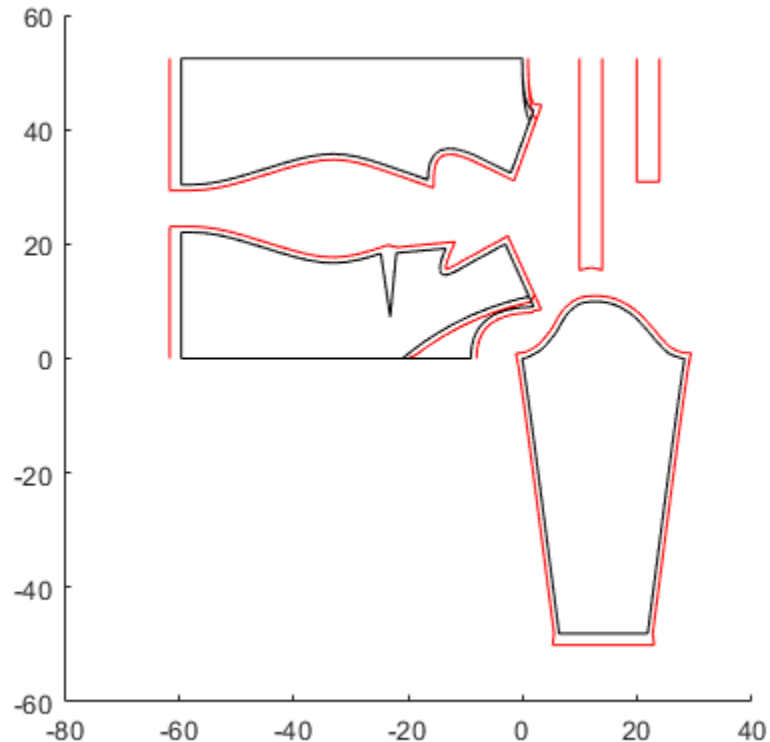
Step 1: Please send the dxf-files to info@waldmann-textech.de.

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The pattern as dxf-file, an order E-Mail and a label with the adress (if you need to send fabric) were created.

Step 2: As soon as you receive the cutted parts please send the cut parts to the tailor (including return postage) or hand them in personally.

A label with the adress and a order letter was created. The opening hours are Thu-Fri 9:00am - 17:00pm.



d) prepare external cutting and sewing at ONE supplier

cutting and sewing: Waldmann Textech ~ 300 Euro material costs for 2 m fabric ~ 20 Euro estimated costs: 320 Euro

% Note: please install the DXFLib (Grzegorz Kwiatek, 2020) from MATLAB Central File Exchange:

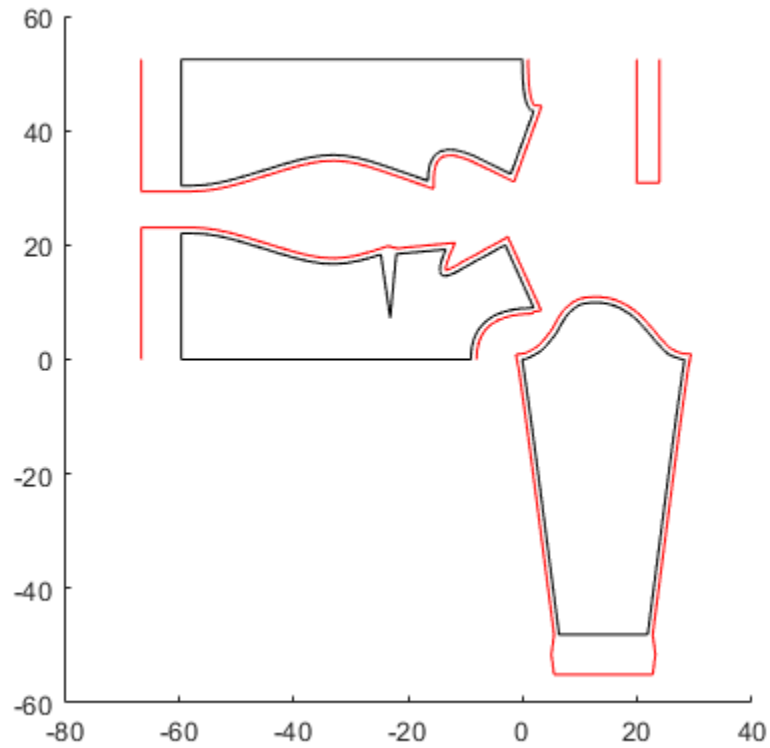
% <https://www.mathworks.com/matlabcentral/fileexchange/33884-dxflib>

shirt_extern_production_one(human_example, fit, sleeve);

A folder with the name 07-Feb-2021_Production_Files_ep_one_SamSample was created with all files for your chosen fabrication type.

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tions to create all files for
a made-to-measure shirt

*Please send the dxf-files to info@waldmann-textech.de.
The pattern as dxf-file, an order E-Mail and a label with the adress
(if you need to send fabric) were created.*



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