

Health care at the workbench of the basketmaker

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Study object : basketmaker Lieve Lieckens, Belgium
(www.mandenvlechten.be)

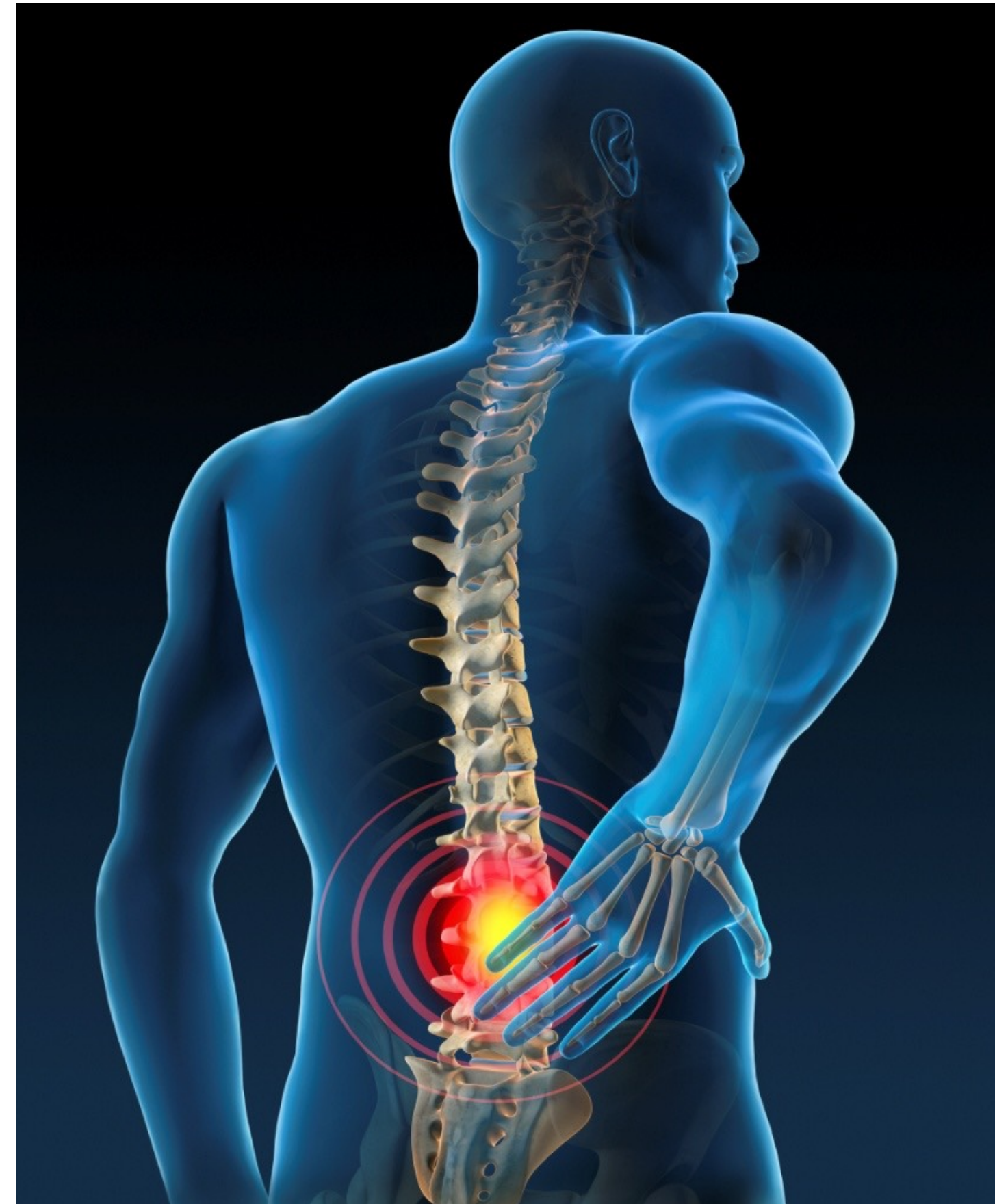
Forum : ZEF Korbmarkt | Basketry Fair 2023

Speaker : Kurt Moeyersons





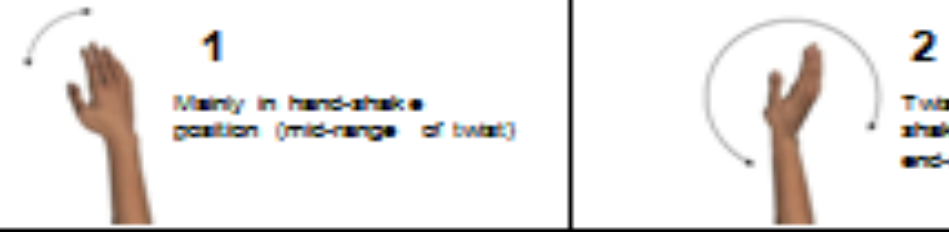


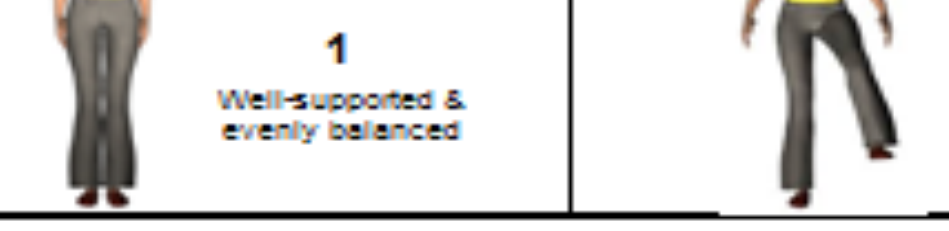


The ergonomic research question:

"Can the basket-maker's work environment be improved to limit the neck and back pain ? ”



Methodology

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	 Rapid Upper Limb Assessment (RULA)																						
3	Date: _____											Task: _____											
4	Company: _____											Supervisor: _____											
5	Dept: _____											Evaluator: _____											
7	Upper Arm Posture Scores																				LEFT	RIGHT	
8	 Additional Conventions: <ul style="list-style-type: none"> +1 raised shoulder +1 abducted shoulder +1 leaning or supported arm 																						
9	Lower Arm Posture Scores																				LEFT	RIGHT	
10	 Additional Conventions: <ul style="list-style-type: none"> +1 if working across the midline of the body or out to the side 																						
11	Wrist Posture Scores																				LEFT	RIGHT	
12	 Additional Conventions: <ul style="list-style-type: none"> +1 if wrist is bent away from midline 																						
13	Wrist Twist Posture Scores																				LEFT	RIGHT	
14	 1: Mainly in hand-shake position (mid-range of twist) 2: Twisted away from hand-shake position (at or near end-range of twist)																						
15	Neck Posture Scores																						
16	 Additional Conventions: <ul style="list-style-type: none"> +1 if twisted +1 if side-bent 																						
17	Trunk Posture Scores																						
18	 Additional Conventions: <ul style="list-style-type: none"> +1 if twisted +1 if side-bent 																						
19	Leg Posture Scores																						
20	 1: Well-supported & evenly balanced 2: NOT well-supported & evenly balanced																						
21	<i>References: Mathiassen, E., and Corlett, R. (1988). RULA: a simple method for the investigation of work-related upper limb disorders. Applied Ergonomics, 19, (4), 59-66.</i>																						

MUSCLE USE SCORES TABLE	
Score	Verbal Anchor / Description
0	* all muscle use not described below
1	* postures that are mainly static (held for longer than one minute) * repetitive use (action is repeated more than 4 times per minute)

FORCE SCORES TABLE	
Score	Verbal Anchor / Description
0	* weights or forces < 4.4 lbs (2 kg) and held intermittently
1	* weights or forces 4.4 to 22 lbs (2 to 10 kg) and held intermittently
2	* weights or forces 4.4 to 22 lbs (2 to 10 kg) and held statically * weights or forces > 22 lbs (10 kg) and held intermittently
3	* weights or forces > 22 lbs (10 kg) and held statically * weights or forces > 22 lbs (10 kg) and repetitive * shock or force with rapid build up

L	R	L	R	L	R	L	R
0	0					0	0
SCORE A		MUSCLE		FORCE		SCORE C	

NOTES

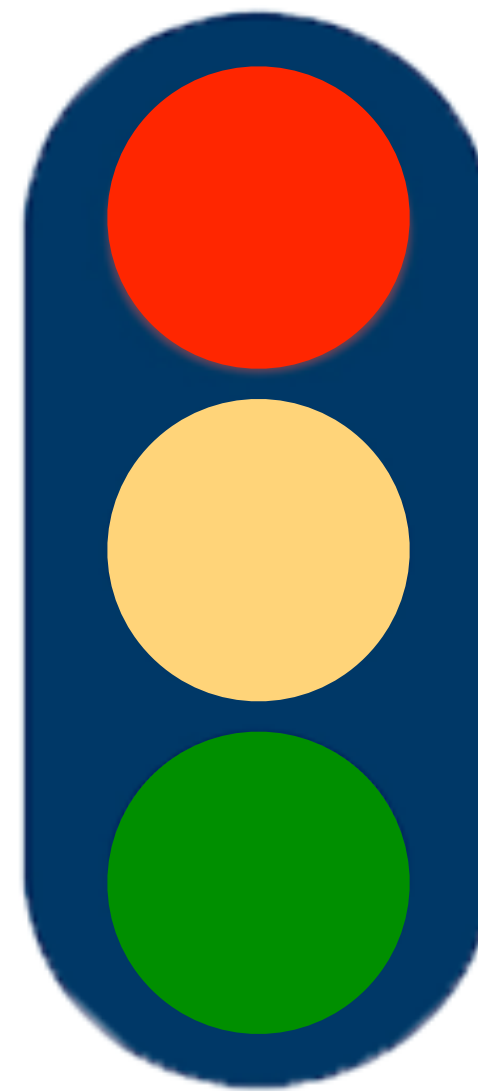
L	R	L	R	L	R	L	R
0						0	
SCORE B		MUSCLE		FORCE		SCORE D	

L	R
GRAND SCORE	

Grand Score	Score = 1-2: Posture acceptable if not maintained or repeated for long periods
	Score = 3-4: Further investigation is needed, and changes may be required
	Score = 5-6: Investigation and changes are required soon
	Score = 7: Investigation and changes are required immediately

Methodology

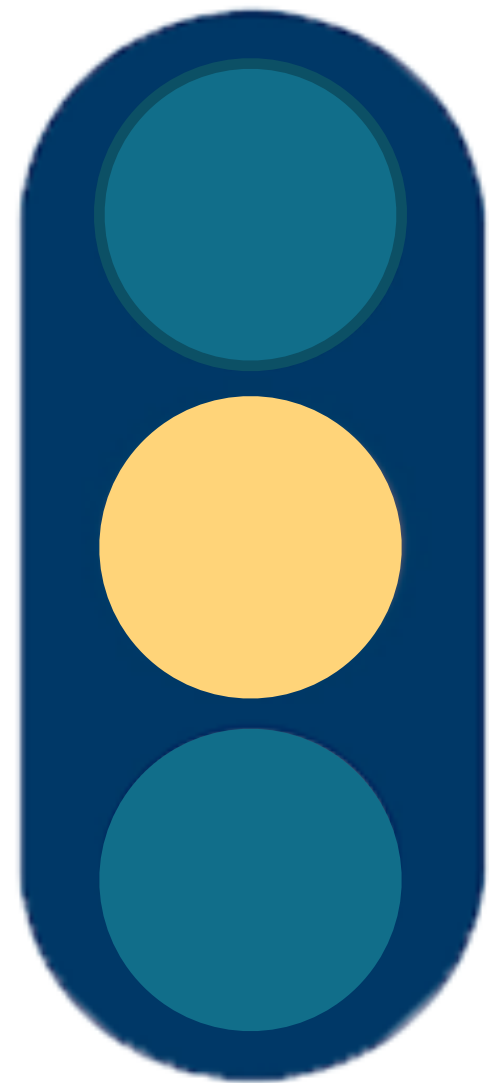
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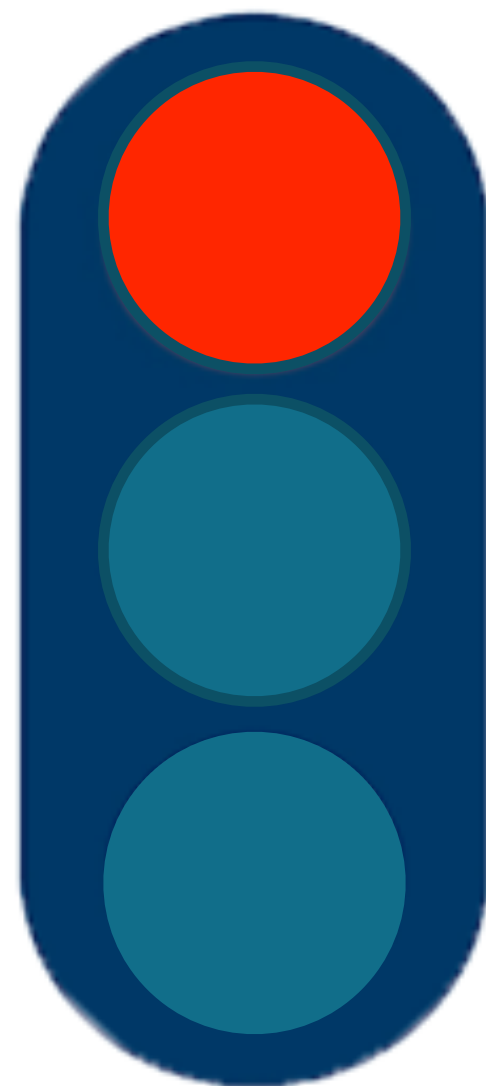
Making a basket

- ▶ Phase 1: Choosing and sorting wicker branches
- ▶ Phase 2: Creating the bottom
- ▶ Phase 3: Fitting / installing the uprights and braiding the walls
- ▶ Phase 4: Finish border and handle

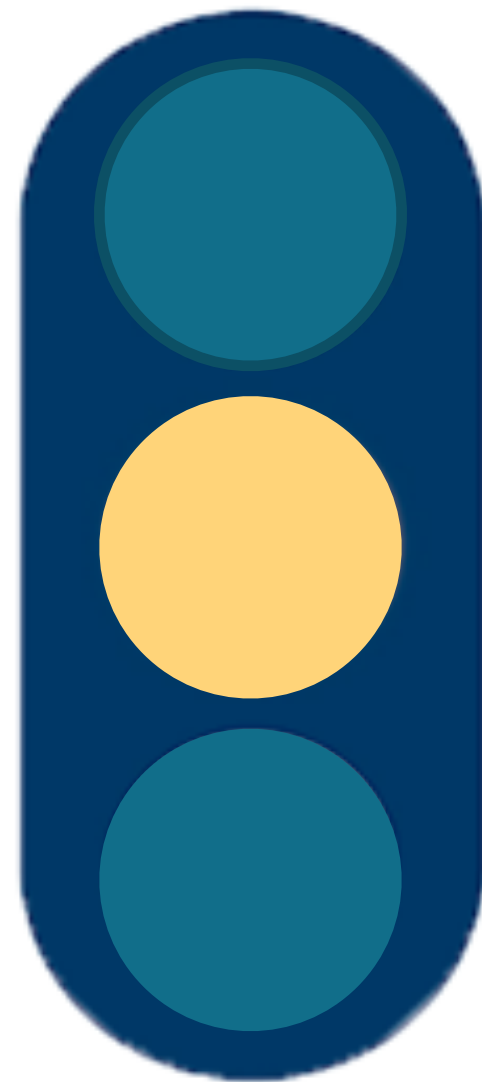
Phase 1: Choosing and sorting wicker branches



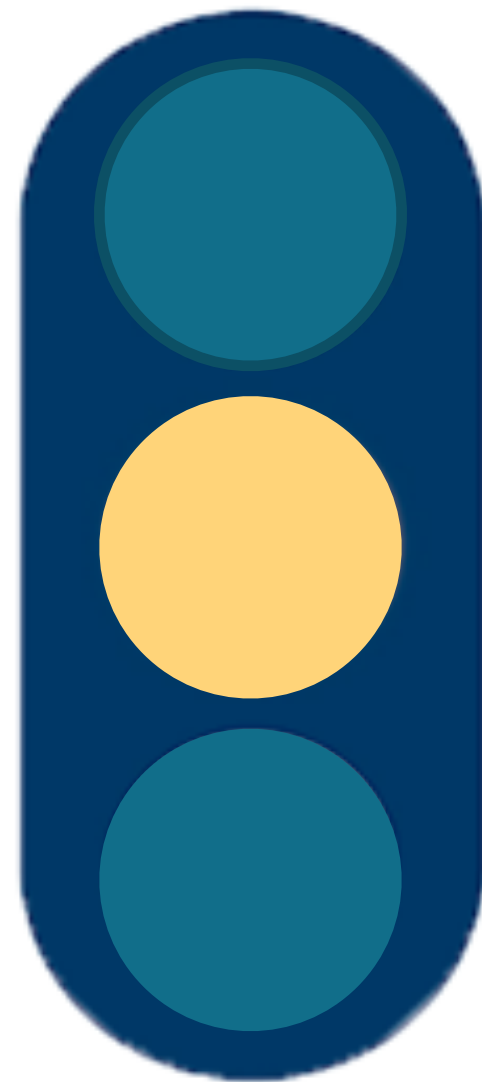
Phase 2: Creating the bottom



Phase 3: Fitting / installing the uprights and braiding the walls



Phase 4 : Finish border and handle



Observation of leg and seat positions



Solutions

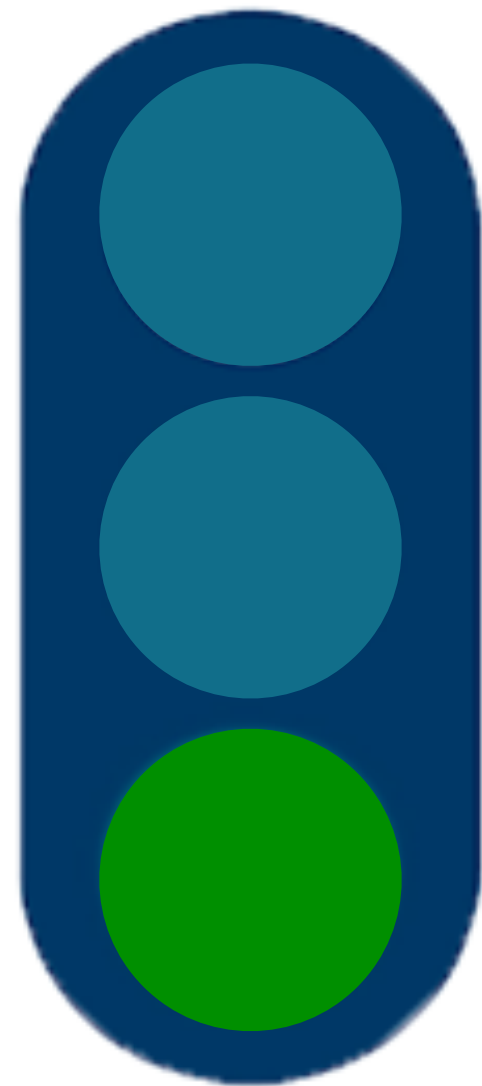
▶ Artisanal solutions

- ▶ Phase 1: Choosing and sorting wicker branches
- ▶ Phase 2: Creating the bottom
- ▶ Phase 3: Fitting / installing the uprights and braiding the walls

▶ (Electro)-mechanical solutions

- ▶ Phase 4: Finish border and handle

Solution Phase 1: Choosing and sorting wicker branches



Solution Phase 1: Choosing and sorting wicker branches

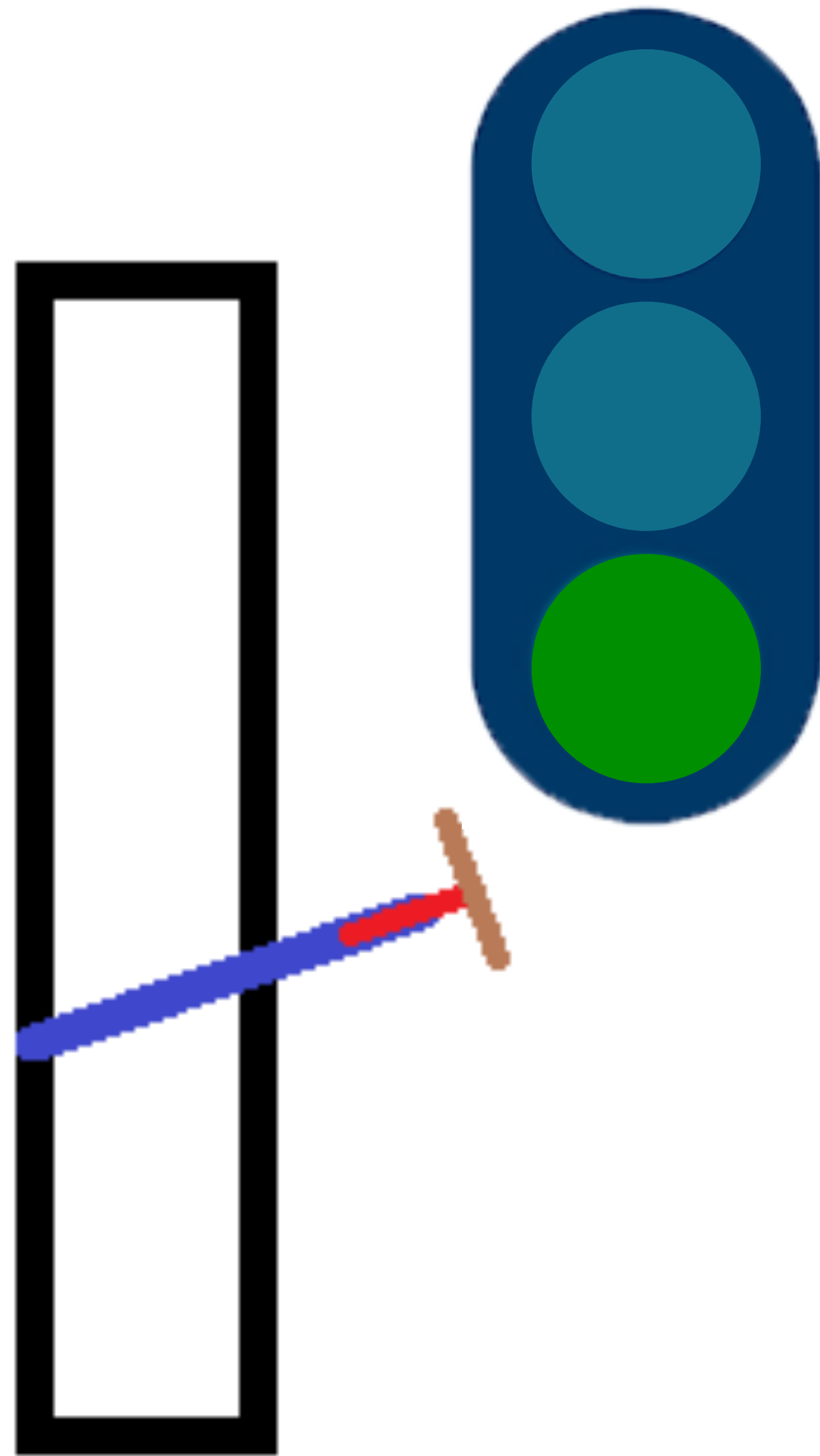
▶ Advantages

- ▶ Straight back
- ▶ Upper and lower arms in ideal position
- ▶ Cheap
- ▶ Easy to move
- ▶ Easily adjustable

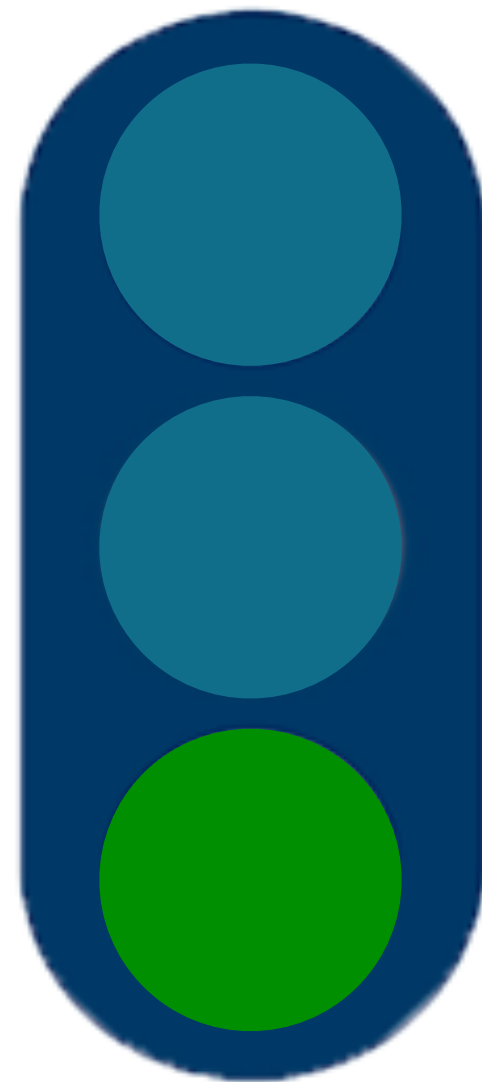
• Disadvantages

- Bending of the neck can never be completely avoided

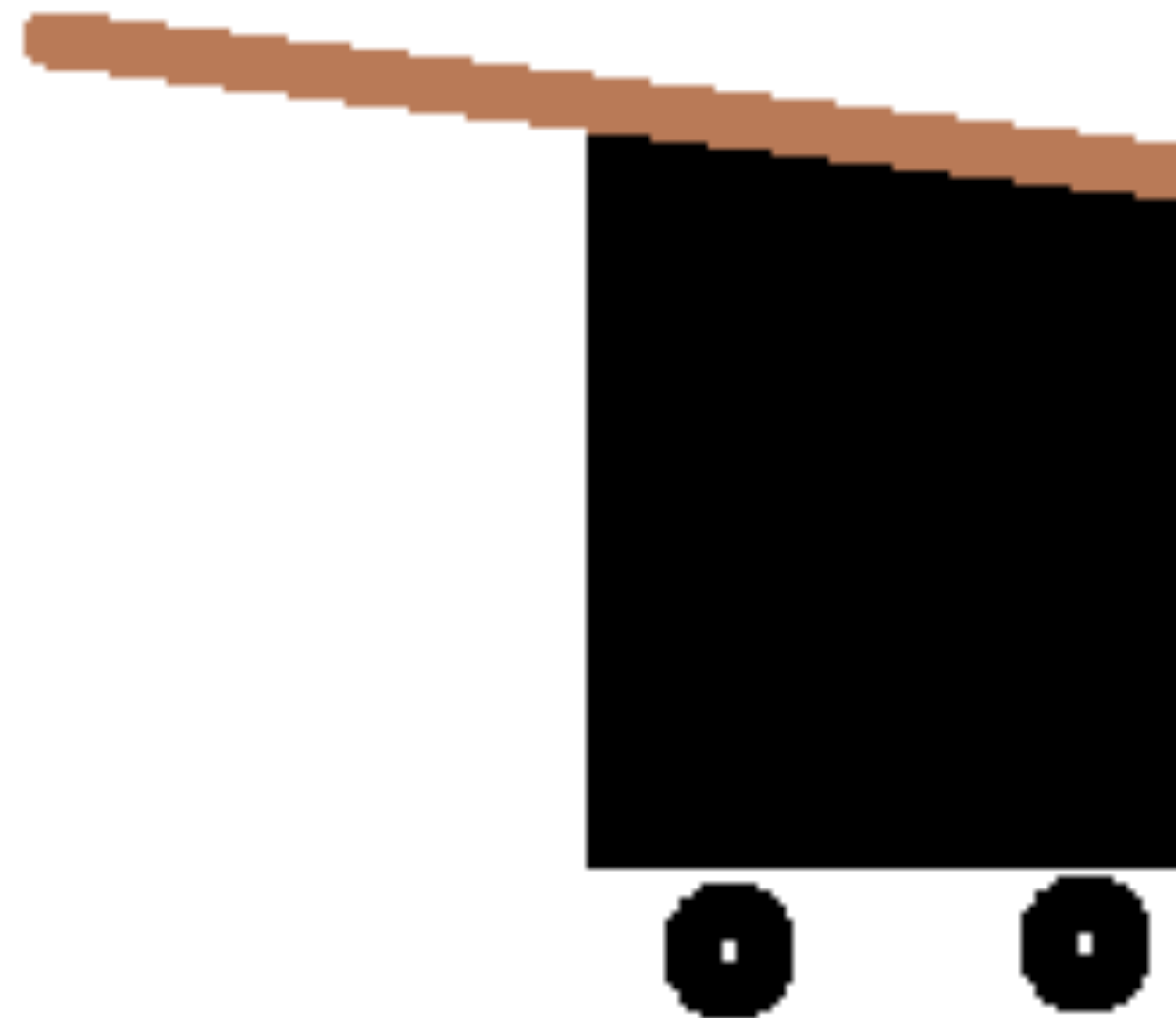
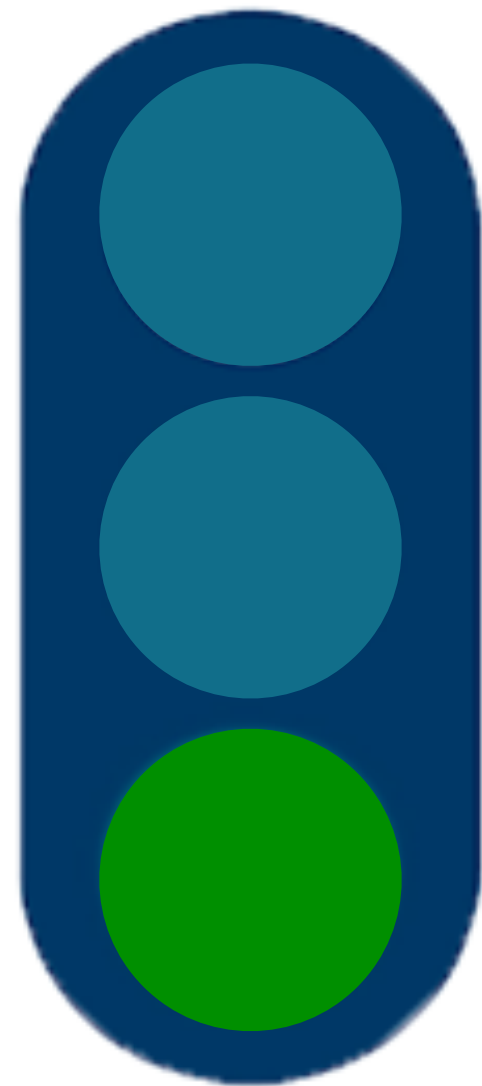
Solution Phase 2 : Creating the bottom



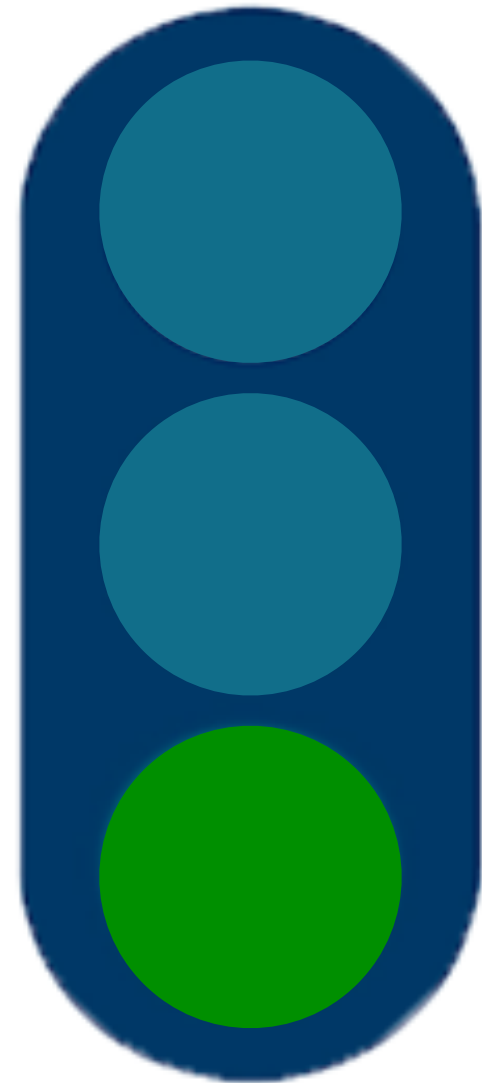
Solution Phase 3: Fitting / installing the uprights and braiding the walls



Solution Phase 3: Fitting / installing the uprights and braiding the walls



Solution Phase 4: Finish border and handle



Motorisch hoogte verstelbaar van 700-1370mm. met wielen van 100mm. hoogte.



Thank you for your attention!

