

Any questions from last week?

1 question
0 upvotes



SIT773 - SOFTWARE REQUIREMENTS ANALYSIS AND MODELLING

- Lecture 7: Software Life Cycles
- Dr Hourieh Khalajzadeh (Hannah)
- School of Information Technology
- hkhalajzadeh@deakin.edu.au



Outline

- Lifecycles: Predictive and Adaptive
- Development: waterfall, parallel and iterative
- Prototyping: Evolutionary & Throw away

```

mirror_mod = modifier_ob.
    # Set mirror object to mirror
    mirror_mod.mirror_object =
    # operation == "MIRROR_X":
    mirror_mod.use_x = True
    mirror_mod.use_y = False
    mirror_mod.use_z = False
    # operation == "MIRROR_Y":
    mirror_mod.use_x = False
    mirror_mod.use_y = True
    mirror_mod.use_z = False
    # operation == "MIRROR_Z":
    mirror_mod.use_x = False
    mirror_mod.use_y = False
    mirror_mod.use_z = True

```

```

# selection at the end -add
mirror_ob.select= 1
modifier_ob.select=1
context.scene.objects.active
    ("Selected" + str(modifier_ob.name))
mirror_ob.select = 0
    = bpy.context.selected_object
    data.objects[one.name].select
print("please select exactly one object")

```

--- OPERATOR CLASSES ---

```

types.Operator):
    # X mirror to the selected
    object.mirror_mirror_x"
    mirror X"

```

```

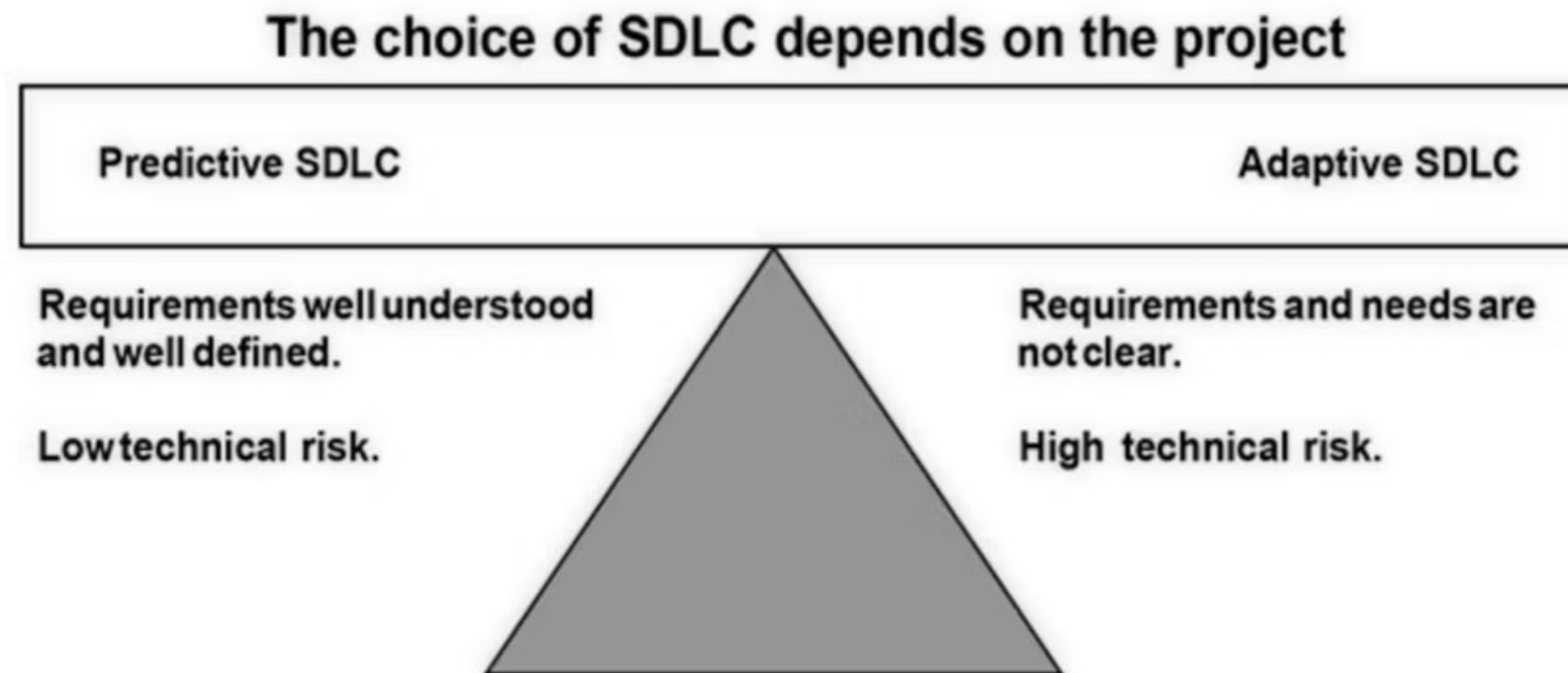
context):
    context.active_object is not

```


The background of the slide is a 3D rendering of interlocking puzzle pieces. Most pieces are light gray, but one piece in the upper right quadrant is a vibrant red, standing out from the rest. The lighting creates soft shadows, giving the pieces a sense of depth and volume.

Types of SDLC lifecycles

Predictive & Adaptive Lifecycles



Predictive or Adaptive?



Problem 1

- Imagine Melbourne City Council is employing you to develop a smartphone mobile application to solve its parking problem. This app should help people locate car park spaces in the inner city and pay for parking with ease.

Predictive or Adaptive?

A thick, hand-drawn style orange brushstroke that tapers at both ends, positioned horizontally below the title.

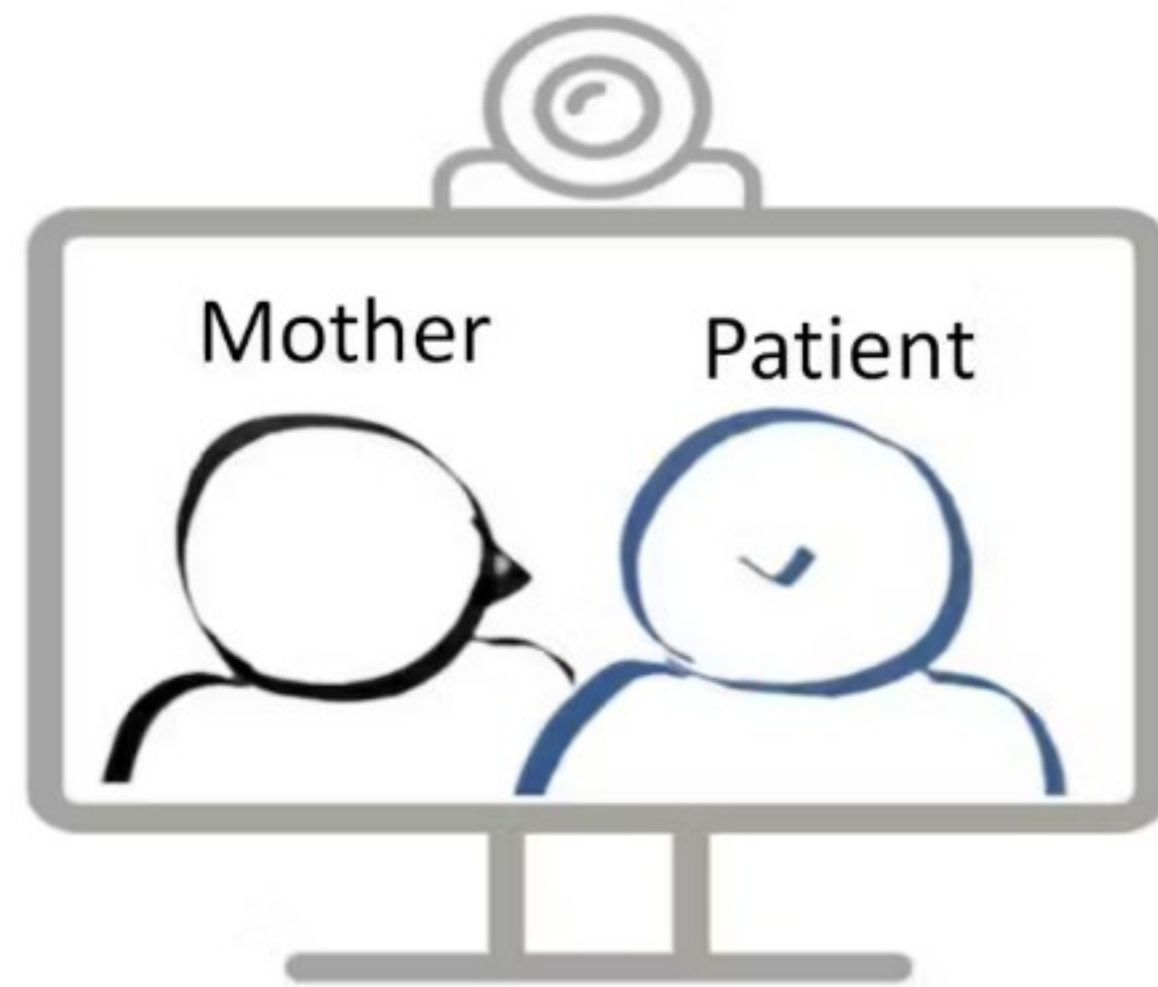
Problem 1

- Imagine Melbourne City Council is employing you to develop a smartphone mobile application to solve its parking problem. This app should help people locate car park spaces in the inner city and pay for parking with ease.

Problem 2

- Design a system that can support physiotherapists in assessing lower limb movements of patients in video consultations?

Video Consultations



Doctor



Predictive or Adaptive?



Problem 1

- Imagine Melbourne City Council is employing you to develop a smartphone mobile application to solve its parking problem. This app should help people locate car park spaces in the inner city and pay for parking with ease.

Problem 2

- Design a system that can support physiotherapists in assessing lower limb movements of patients in video consultations?

What kind of system would you design for problem 2?

A system that evaluates movement patterns.

audio and video input

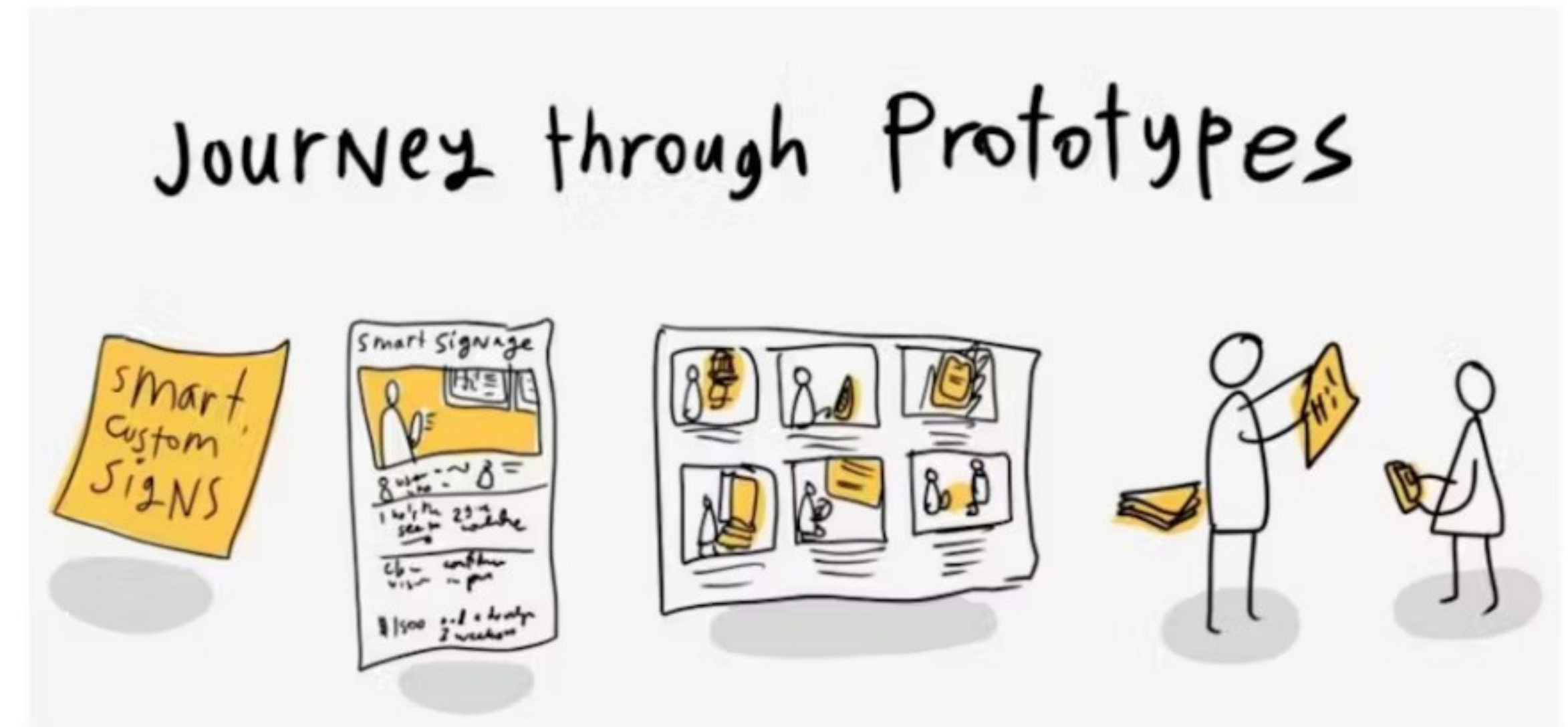
Movement recognition

requirements analysis and their priorities

SoPhy – Socks for Physiotherapy

Prototyping

- Serves as the foundation for early and quick iterative cycles, which is ideal for agile development.
- Primarily concentrates on the application's user interface.
- It's important to set and manage client expectations!
- The prototype is not the final system.



Prototype

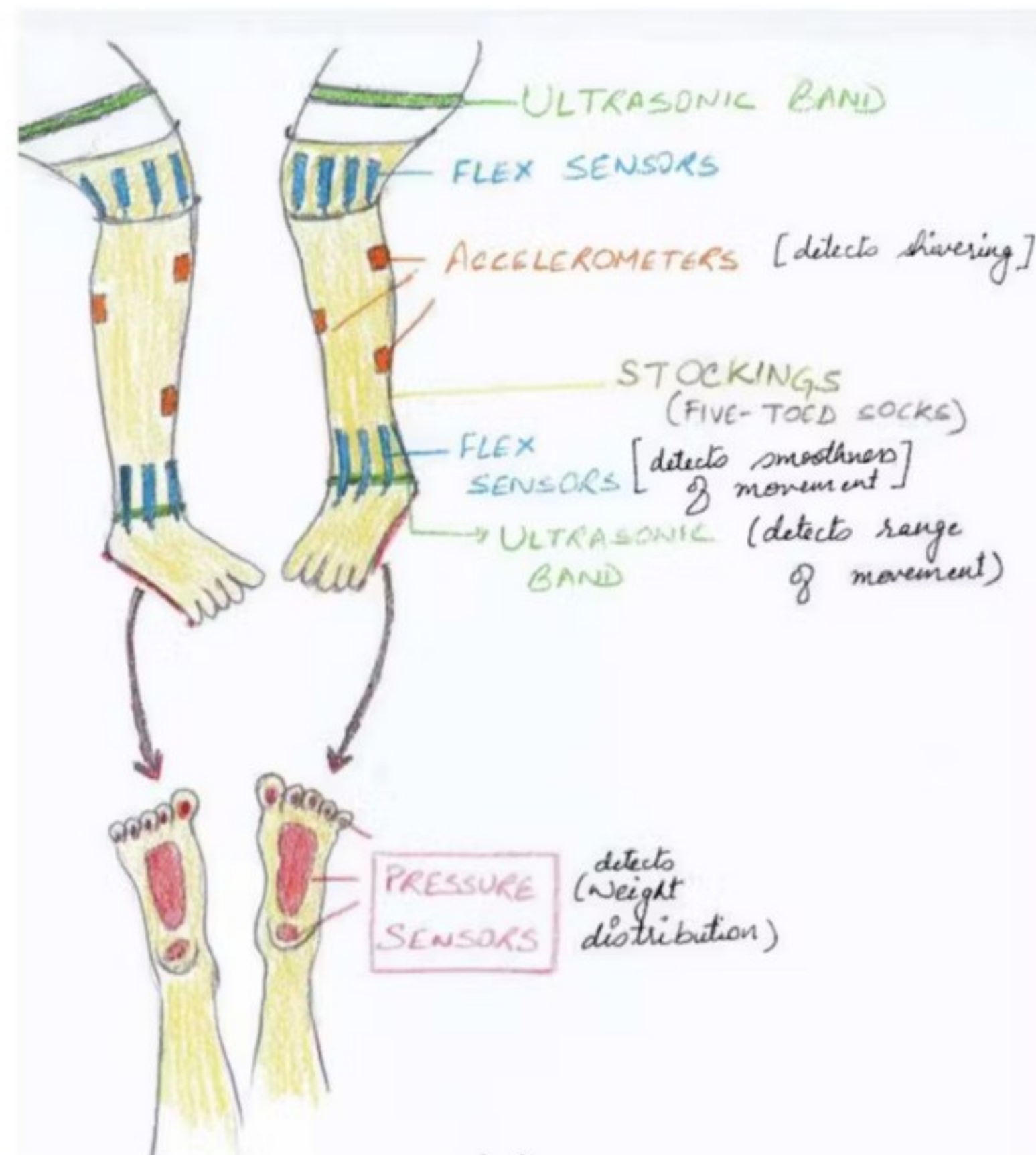


EVOLUTIONARY

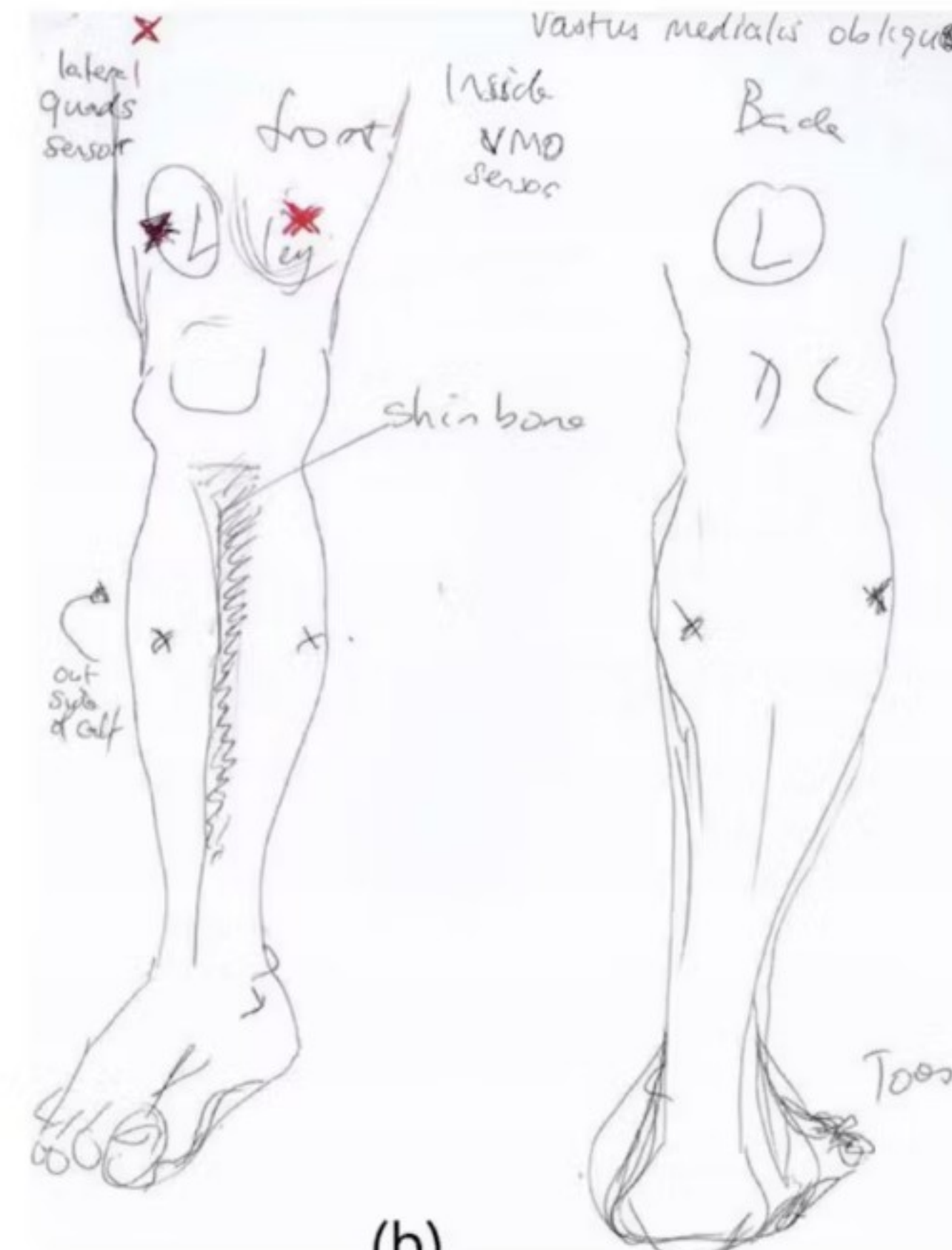


THROW-AWAY PROTOTYPE

Paper prototypes

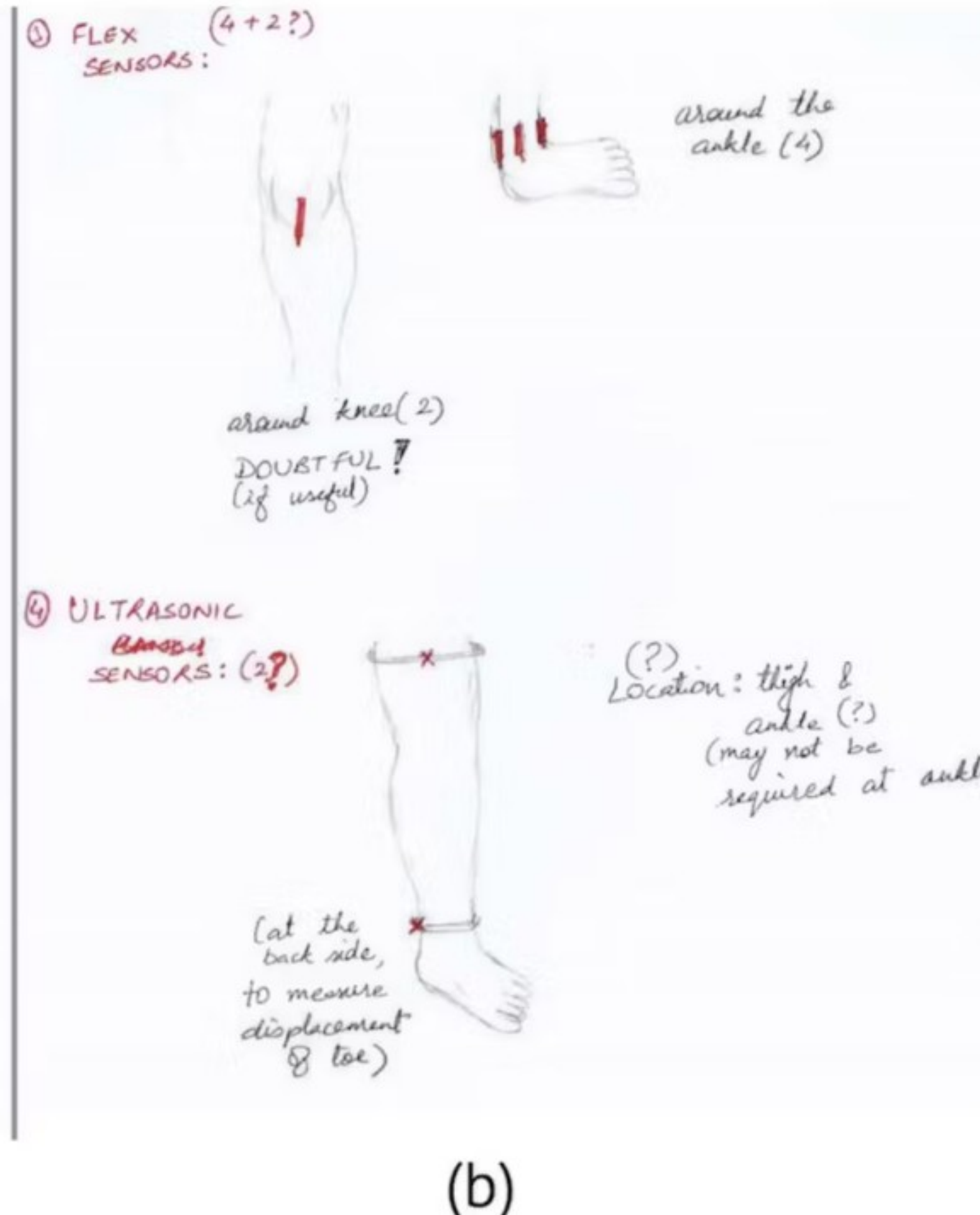
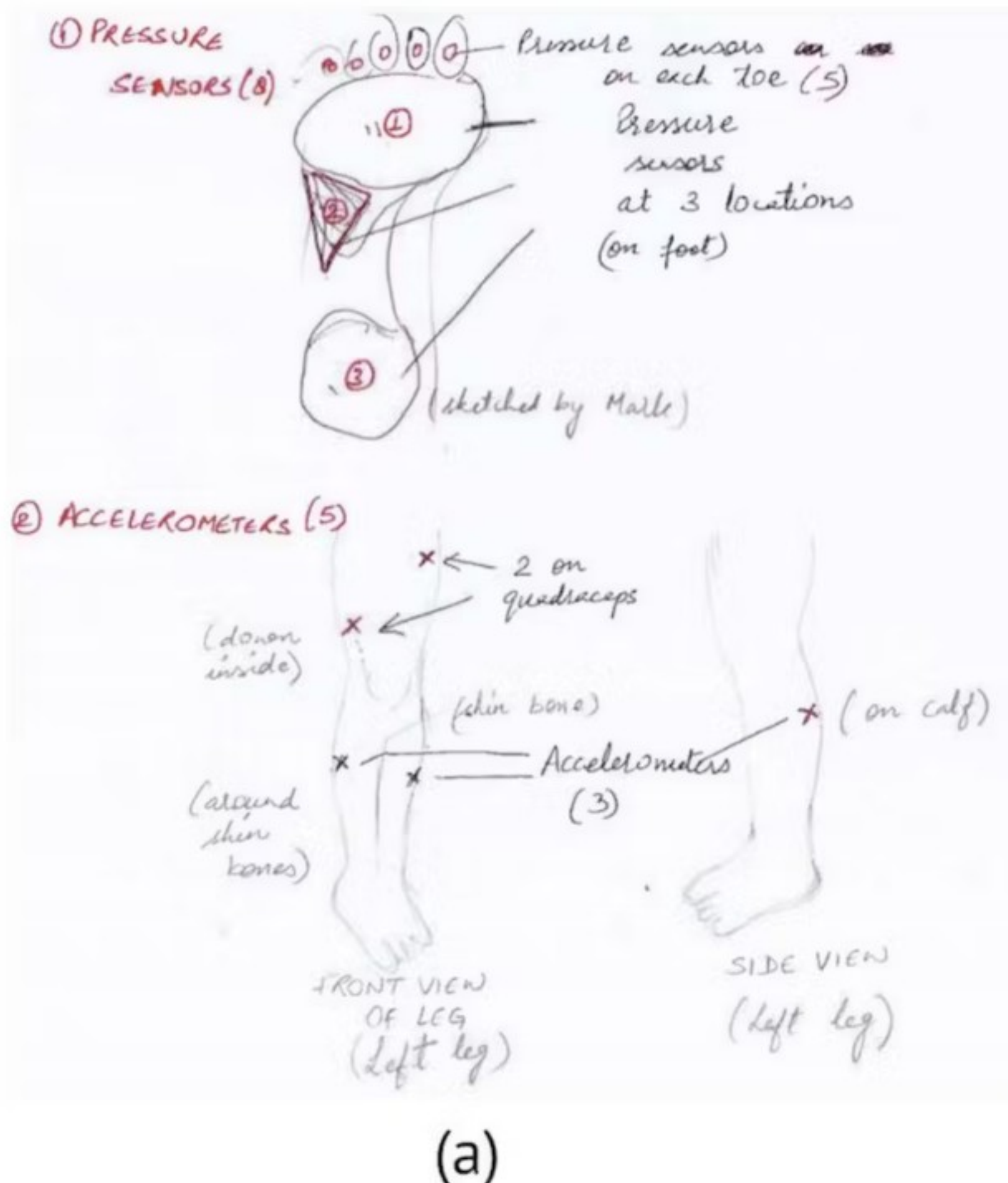


(a)



(b)

Paper prototypes



The background of the slide is a 3D rendering of interlocking puzzle pieces. Most pieces are light gray, but one piece in the upper right quadrant is a vibrant red. The lighting creates soft shadows, giving the pieces a three-dimensional appearance.

Types of Development

How do you decide an iteration?

Process improvement

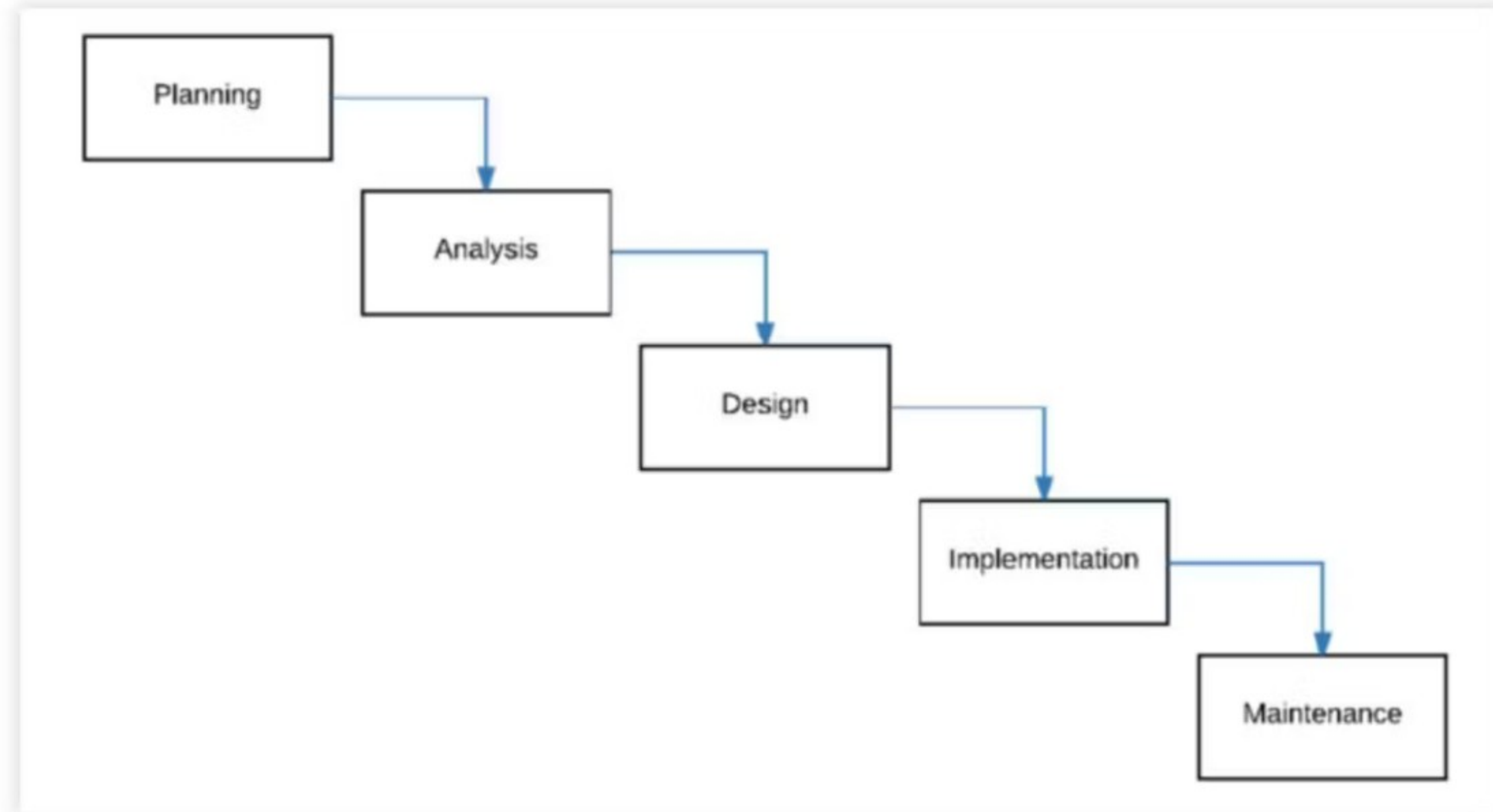
Consider the complexity and how much of the requirements you know up front.

After user/internal feedback

requirements analysis and their priorities

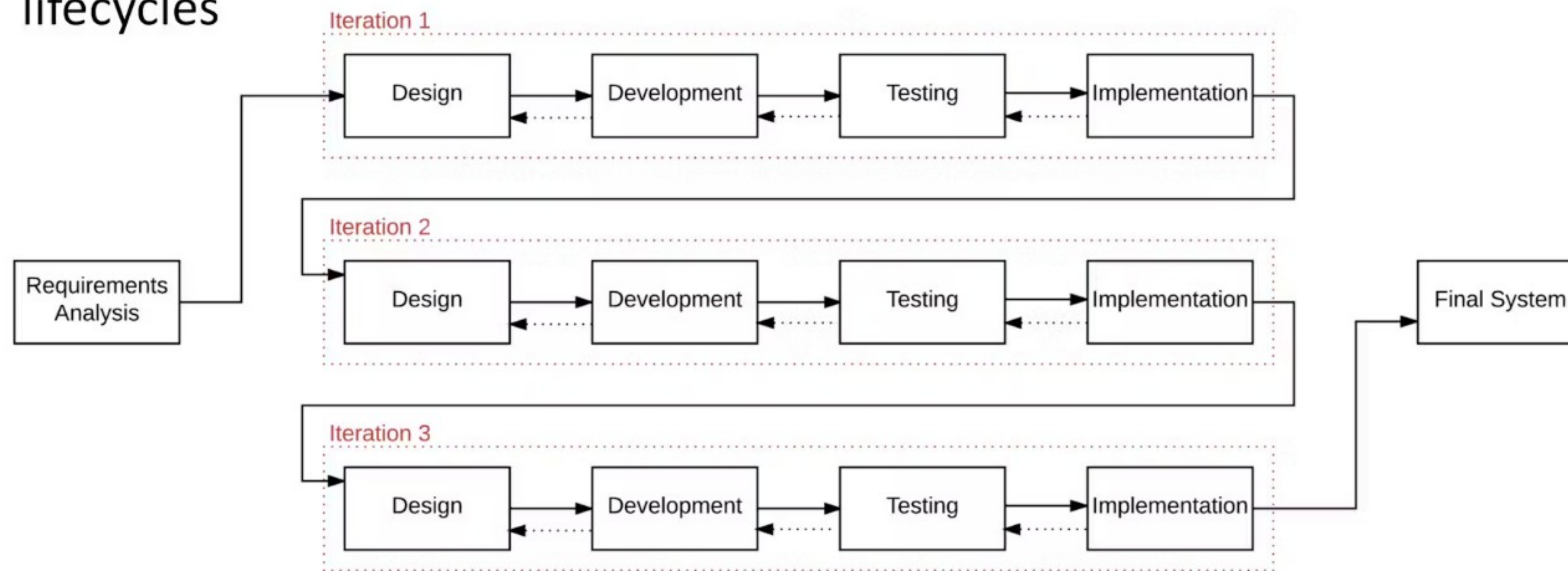
Waterfall model

Predictive lifecycles



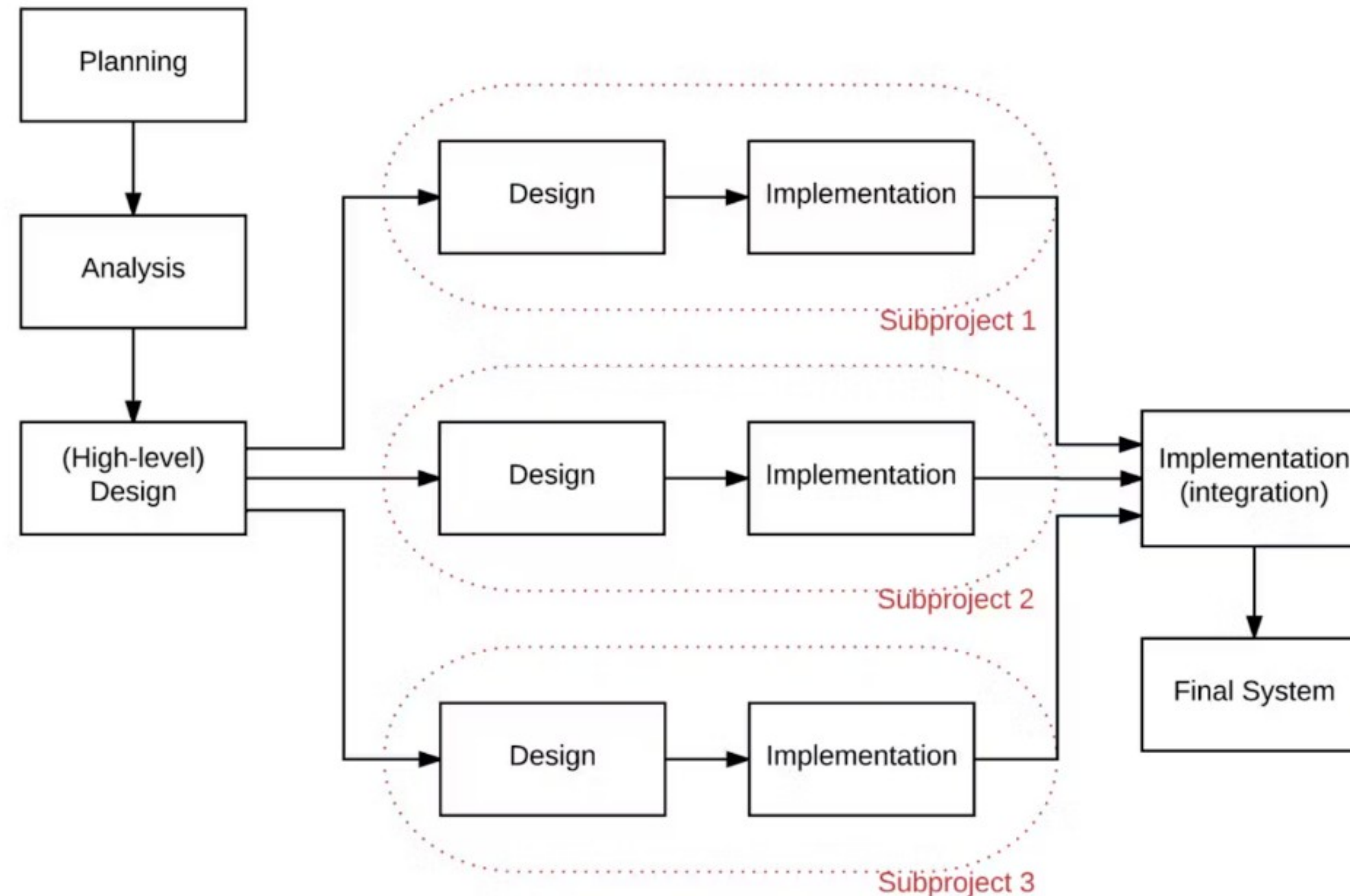
Iterative development

Adaptive lifecycles



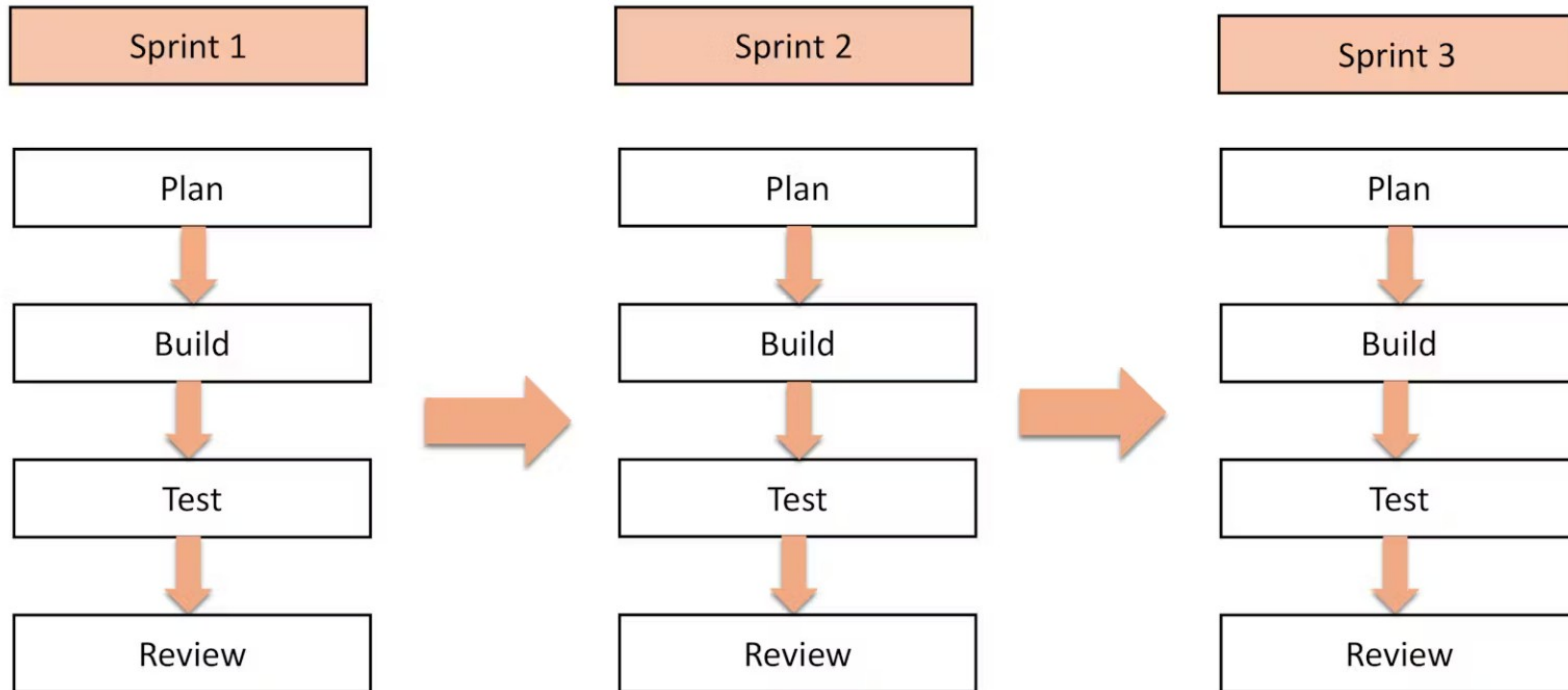
Parallel development

Predictive and Adaptive lifecycles



Agile

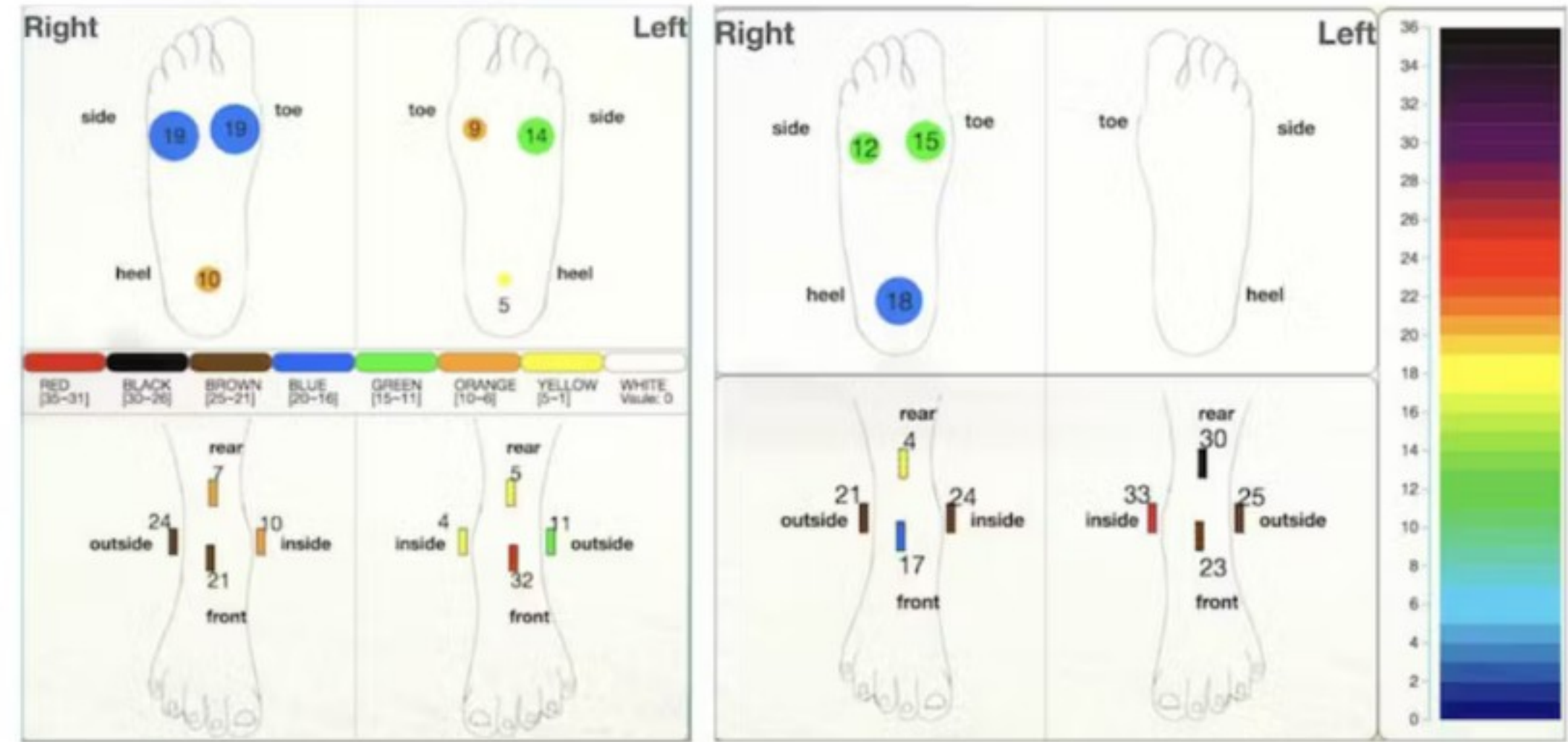
- Each iteration begins and concludes at a predetermined time, typically two weeks.
- Each sprint builds incrementally, progressing until the product is ready for release.



Iterative development

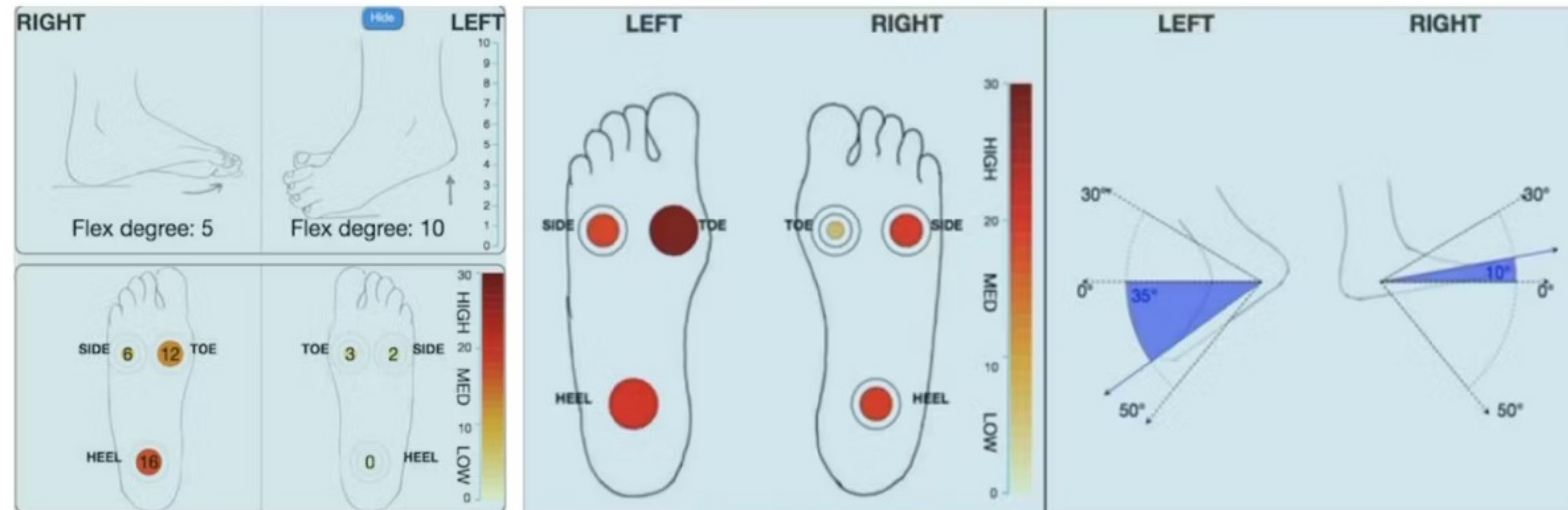


Iterative development



1

2



3

4



The background of the slide features a 3D rendering of interlocking puzzle pieces. Most pieces are light gray, but one piece in the center-right is a vibrant red, standing out prominently. The lighting creates soft shadows, giving the pieces a three-dimensional appearance.

Types of Prototype Development

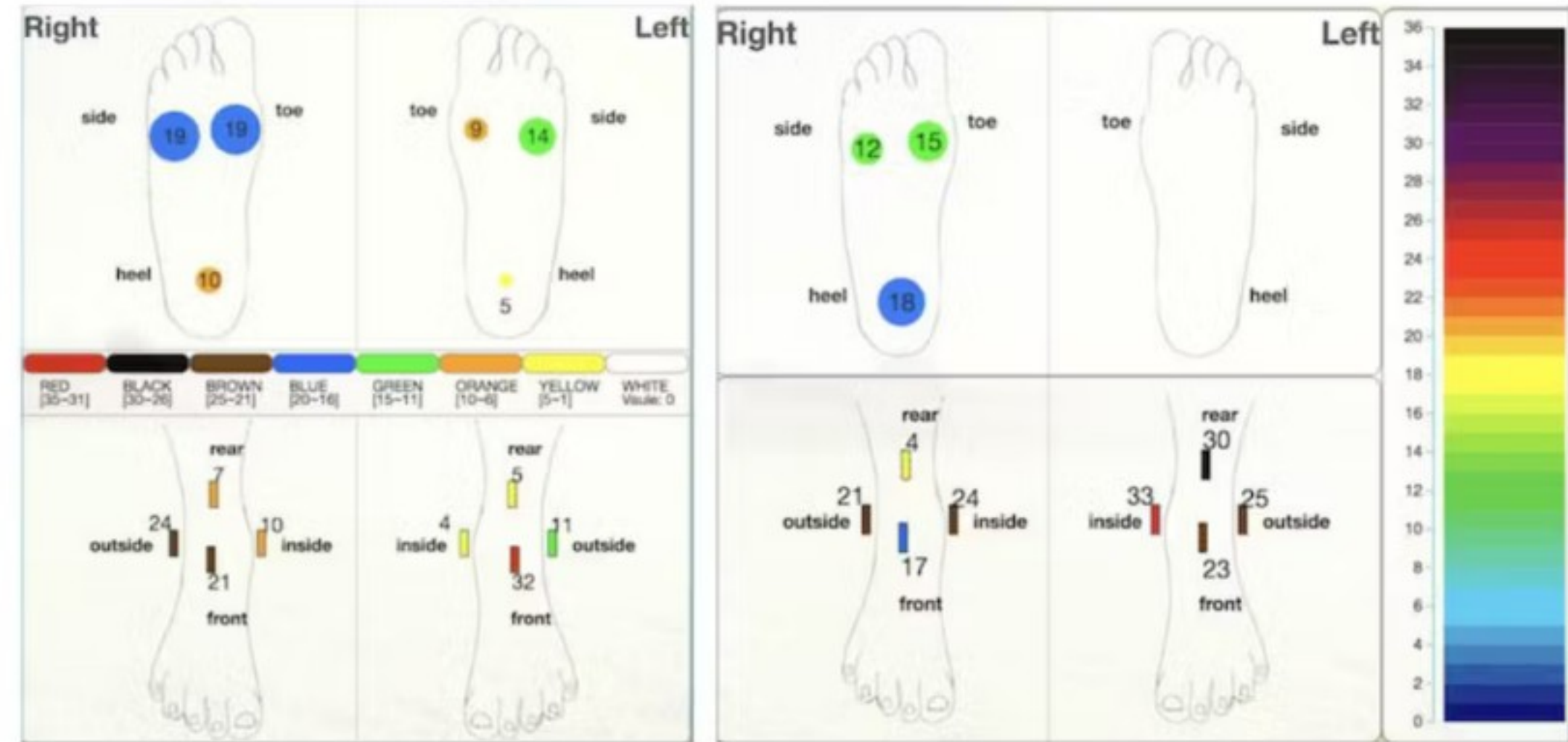
Prototype

- Evolutionary
- Throw-away prototype

Throwaway prototypes

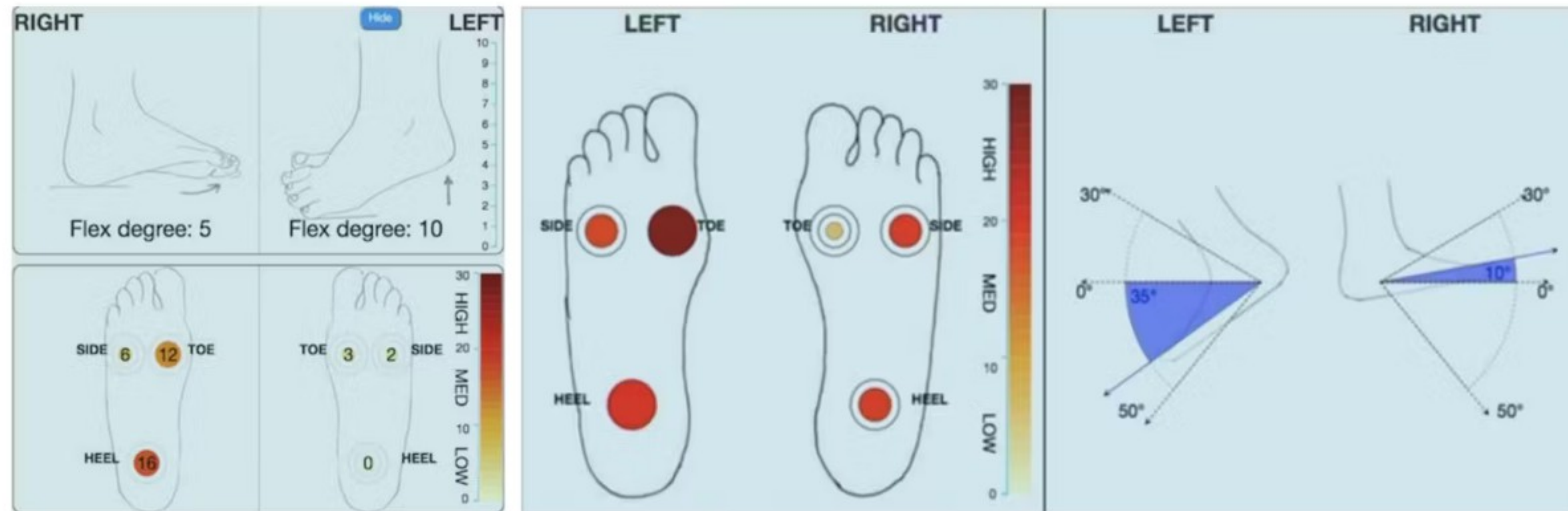


Evolutionary and throw-away



1

2



3

4

Any questions?



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Let us look at the tasks now.

Thank you!

I will see you all next week.

