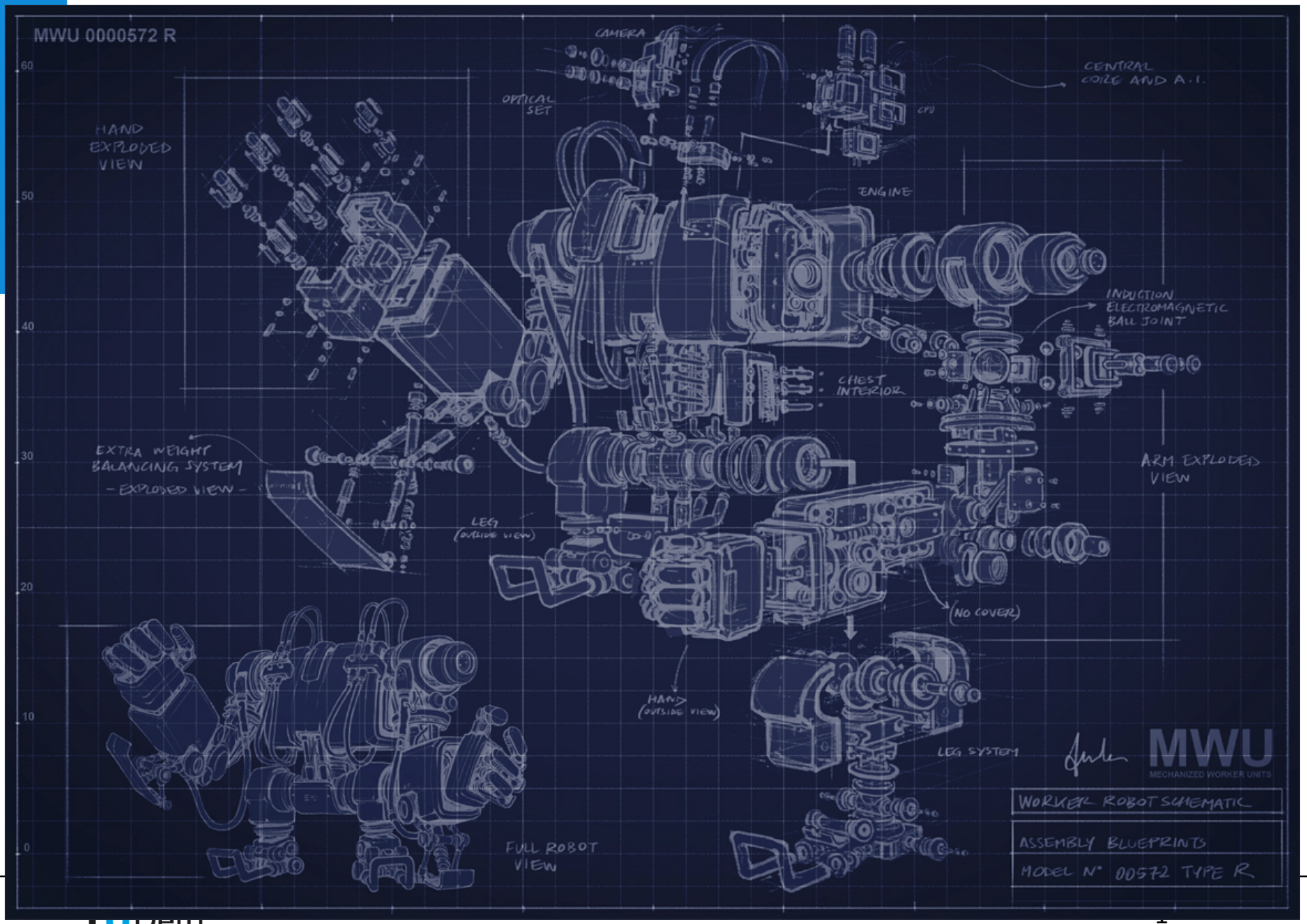
MWU 0000572 R
CAMERA
OPTICAL SET
CPU
CENTRAL CORE AND A.I.
HAND EXPLODED VIEW
ENGINE
INDUCTION ELECTROMAGNETIC BALL JOINT
CHEST INTERIOR
EXTRA WEIGHT BALANCING SYSTEM
- EXPLODED VIEW -
LEG (OUTSIDE VIEW)
ARM EXPLODED VIEW
(NO COVER)
HAND (OUTSIDE VIEW)
LEG SYSTEM
MWU
MECHANIZED WORKER UNITS
WORKER ROBOT SCHEMATIC
ASSEMBLY BLUEPRINTS
MODEL N° 00572 TYPE R
FULL ROBOT VIEW

System identification and decomposition

21-11-19 Dr. ir. Igor Nikolic

System identification and decomposition

- Step 1 - “What is the problem” is already done for you!
  - one of the most difficult steps
- Given the identified problem and actors :
  - How does the system look like?
  - Who/what is in/out?
- Iterative process consisting of :
  - Inventory
  - Structuring
  - Iteration
- Setting up a story, which will play out when you press “GO”

Inventory

- Collect data / study the problem
  - Literature, surveys, interviews and brainstorm sessions with domain experts,stakeholders, and relevant actors.
  - Inventory of all relevant elements, issues, factors, worries and explanations that come up.
  - This step is already **partially** done for you

- Choose a time frame that is important.
  - Longest and shortest time periods?
  - What is the most frequent action your agents need to do?
  - For how long to they have to do it ?
  - Will the slowest process have enough time to happen once? A few times?

Who does what with who, how, when and where?

Setting up a story :

Agent gets up in the morning, has a cup of coffee, and …

- Relevant concepts
  - *The words that you will use*
- Agents or objects
  - Who makes decisions (proactive) vs
  - on who are those decisions taken on (is reactive)
  - *Characters and things in your story*
- Relevant actions of Actors
  - *The verbs of your story!*
- States or properties
  - Of Agents, Objects and the Environment
  - *“Adjectives” of your agents*

Draw & write it out.

may help to use “Personas and Storyboards” approach

Van Boeijen, A., Daalhuizen, J., van der Schoor, R. and Zijlstra, J., 2014. Delft design guide: Design strategies and methods.

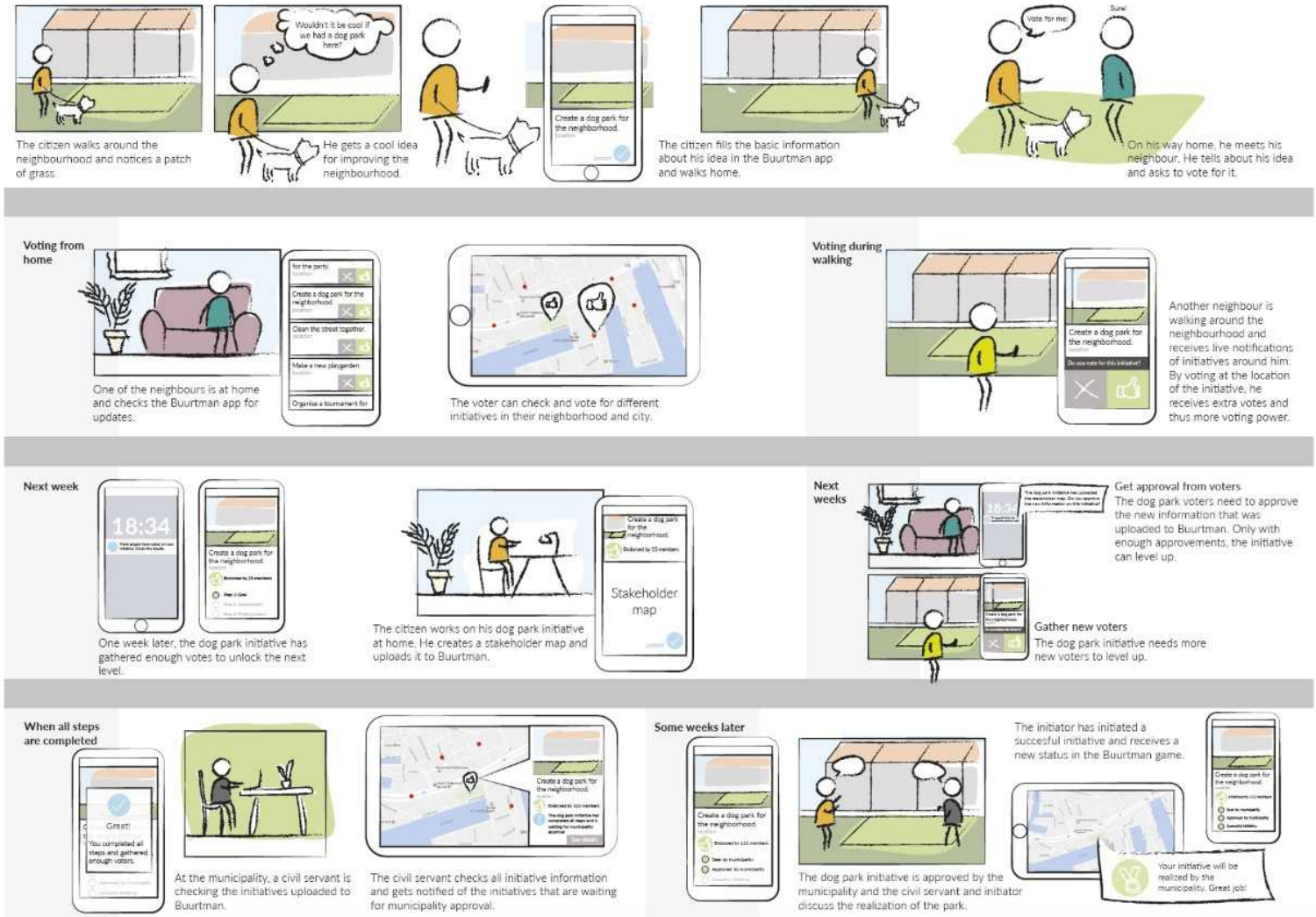

Figure 22: User scenario of Buurtman