**Competence Document**

**Glenn Stamminger**

**1 . Persona**



I am Glenn Stamminger, before studying at Fontys ICT I studied Havo with an NT-profile at Trevianum in Sittard. In this last year I’ve learned to work with C#. I am reasonably experienced in time/group management.  
My biggest previous project so far has been my part of the group project for ProP in which I built an shop application which dynamically retrieves the icons for each item in the shop database and an application that can be used to assign a user profile to a physical tag.

My main interests within the field of ICT are related to a.i, automation and robotics.

**2. Context**

Making processes within life more efficient and automated making certain aspects of life easier.

**3. Competence profile**

First you’ll have to visualise your selections of competences in a 3d matrix. An example is shown below.

Maak een onderscheiding tussen wat je al kan en wil leren

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Version 1 | Managing | Analysing | Advising | Designing | Realising |
| User interaction |  |  |  |  |  |
| Business processes |  |  |  |  |  |
| Software |  |  |  |  |  |
| Hardware |  |  |  |  |  |
| Infrastructure |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Version 2 | | Managing | | Analysing | | Advising | Designing | Realising |
| User interaction | |  | |  | |  |  |  |
| Business processes | |  | |  | |  |  |  |
| Software | |  | |  | |  |  |  |
| Hardware | |  | |  | |  |  |  |
| Infrastructure | |  | |  | |  |  |  |
|  | |  | |  | |  |  |  |
| Level 1 | | Level 2 | | Level 3 | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Version 3 | Managing | Analysing | Advising | Designing | Realising |
| User interaction |  |  |  |  |  |
| Business processes |  |  |  |  |  |
| Software |  |  |  |  |  |
| Hardware |  |  |  |  |  |
| Infrastructure |  |  |  |  |  |

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| --- | --- | --- |
| Realising S 2.1 | Bouwen en beschikbaar stellen van een softwaresysteem dat bestaat uit meerdere subsystemen, hierbij gebruik makend van bestaande componenten. | Design the software part of a system that interprets incoming sensory data to create a map around itself which it passes on to a decision making module. |
| Analysing U2.2 | Een interface-, gebruiks- en communicatieanalyse maken, inclusief usability en user-experience. | I measure movement patterns of people when near the robot both stationary and when moving. This could influence the size of the map needed for mapping. |
| Designing S2.1 | Opstellen van een ontwerp voor een softwaresysteem, rekening houdend met het gebruik van bestaande componenten en libraries; gebruik maken van ontwerp-kwaliteitscriteria. | First I research what existing components and libraries are being used and based on that I design a system that looks for the software best suited for the criteria |
| Managing B 2.2 | De behoefte aan procesveranderingen signaleren en inventariseren, mede op basis van gegevens uit kwantitatieve en kwalitatieve analyse. | Looking at the projected goals of a given project I predict what changes are necessary and implement them preemptively |
| Advising S 2,1 | Adviseren over eventuele aanschaf en vervolgens selectie van bestaande software of componenten bij het ontwikkelen van softwaresysteem, waarbij het kostenaspect een rol speelt. | Make an analysis balancing cost versus effectiveness of software and choosing the optimal software within budget |
| Advising H 2.1 | Een technisch advies uitbrengen voor de architectuur van een computersysteem en de hardware- en software-componenten. | Based on the research done in another kpi I decide on components to use |
| Realising H 2.1 | Een eenvoudig computersysteem inrichten en de koppelingen met hardware componenten realiseren via software. | Making a system which uses incoming sensor data to map out a circle around it. |
| Analysing H 2.2 | Een computersysteem methodisch specificeren. | Researching what components will be best for the module I’m building |
| Advising I 2.2 | Analyseren van aan infrastructuur gerelateerde incidenten, problemen en security-bedreigingen. | I do this by collecting data on general problem areas withing existing popular infrastructures and looking for possibilities to fix it. |

**4. Project description**

Our group is going to design a “smart trolley” named M.A.R.C.O, which stands for Mobile Autonomous Robotic Carrying Object. Although this can be applied in more environments, we decided hospitals would have the most effective use of it. The goal of M.A.R.C.O is to lower the high work load of hospital staff by guiding patients to their rooms, and delivering items to either the patents or staff independently.

**5. Sprint retrospectives**

After every sprint demo you will have a retrospective. You will reflect on your process, work method and the communication within your group. Include a summary of each retrospective in this document

**Sprint 1**We started with a rough start due to issues in understanding what the real goals were of open innovation, after we clearly understood what needed to be done in this course everything went pretty smooth with clear communication.

**Sprint 2**We have made good progress in the realization of our project, we have made good progress and had clear communication during the entire sprint. In the beginning of the sprint we made the final decisions on the setup of the machine and have each made clear progress in realizing our respective modules.

**6. KPI-table with proof**

The table displays the KPI's (including their description) from your competence profile with a link to the assignment(s) that serve as proof. Also add a short description of the proof.

|  |  |
| --- | --- |
| **KPI** | **Proof** |
| Analysing H 2.2  analyse possible components that will be used for my module  Advising H 2.1  Based on research make a decision on what components will actually be used | Hardware research (and advice) paper: a document that combines all assignments related to hardware components.  https://fhict.instructure.com/courses/7125/assignments/105600 |
| .  . |  |
| .  . |  |
| KPI-nr and a description | Assignment x: Add description and a link to a canvas assignment |

**7. Evaluation and Reflection**

Add an evaluation and a reflection of your whole Open Innovation semester. Your evaluation describes what went good and bad during your process and how you dealt with that. Your reflection describes how you have grown as a person, and what you will take with you in your further professional carreer. In the reflection you should also shine a light on the following aspects:

**Responsible**- Acts consciously with concern for the greater good with contemplation of relevant approaches.  
- Makes an assessment of different interests.  
**Innovativeness**- Focuses on renewal, improvement and making new connections.  
- Spots or creates opportunities and seizes them.  
**Resilience**- Challenges own ideas.  
- Perseveres in finding a result or solution.

**Professional development**Learning development:  
I wanted to learn how to work with new and different hardware types. I feel that have done this being that before this project I had only worked with Arduino and it’s native IDE. And in this project I got to work with an esp32 which has it’s own IDE, which was quite complicated compared to Arduino IDE.

Communication:  
Besides some minor hiccups at the beginning of the project, communication was very good during the project. We had setup a document listing collaboration details to prevent any situations in which something went wrong in communications due to different understandings.

Decision making:  
the way I made each decision in this project (like what hardware, software and libraries to use) was partially based on previous experience I already had from older projects, but mostly based on research I did during the project itself. With the criteria being what parts were best suited for the module requirements.

**8. Feedpulse**

