**Requirement matrix (Meta Quest 2)**

**Complexity of the operation**

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| --- | --- | --- | --- | --- | --- |
| ***Topic*** | ***Defined measurement points*** | ***Degree of achievement*** | ***Rating*** |  |  |
|  |  |  | **Weighting** | **Points** | **Result** |
| How complex is the operation of the device? | Complexity of building the system.  Required peripheral systems (sensors). | The system can be operated almost out-of-the-box. Starting can only be done using the headset. For the sake of simplicity, however, the setup is accompanied by a mobile phone. User registration and access to the shop can be managed more easily using a separate app on the mobile phone. | 2 | 9 | 18 |
| What is required to reach the operating status as quickly as possible? | Device startup process.  Start the application. | The system is started with just one button. After successful configuration, the system can then be operated entirely without a mobile phone. If the device is unplugged after use, it will automatically switch to sleep mode after a short time. | 1 | 7 | 7 |
| How high must the user's technical understanding be in order to bring the device to be used into operating mode. | Required technical skills. | No special knowledge is required. The menu navigation is similar to that of a cell phone and is accompanied by simple tutorials, even for more complex technical settings. | 3 | 8 | 24 |
| Does the device run alone (stand alone) or are subsystems required for this? | Required subsystems (computer systems). | No subsystem is required, the operation is absolutely autonomous. | 4 | 9 | 36 |
|  |  |  |  |  |  |
|  |  |  | *Segment score* | | *85* |

**Usability of the device**

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| --- | --- | --- | --- | --- | --- |
| ***Topic*** | ***Defined measurement points*** | ***Degree of achievement*** | ***Rating*** |  |  |
|  |  |  | **Weighting** | **Points** | **Result** |
| According to which definition is the device operated?  - Input management methods  - Input Management Device | Number of controllers.  Number of buttons & triggers. | 2 controllers are used for operation. The positioning is anatomically correct and pressing the buttons feels natural. Each controller has 1 thumb stick, 3 thumb buttons, 1 button for index finger and 1 button for middle or ring finger. Handling has to be practiced, but is quickly perceived as very intuitive. | 3 | 6 | 18 |
| Define a learning curve for operating the device. | Assessment according to target audience manufacturer. | The device can be put into operation quickly because of its simple nature. Since no external sensors are required, prior technical knowledge is only secondary. The system is designed in such a way that important settings can always be made directly with the device, e.g. the demarcation of the play area. | 4 | 8 | 32 |
|  |  |  |  |  |  |
|  |  |  | *Segment score* | | *50* |

**Software modifiability**

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| --- | --- | --- | --- | --- | --- |
| ***Topic*** | ***Defined measurement points*** | ***Degree of achievement*** | ***Rating*** |  |  |
|  |  |  | **Weighting** | **Points** | **Result** |
| Can own developments be installed on the system? | API available.  DEV platforms available. | The system supports the common development platforms and own applications can be run on the device without requiring approval. | 4 | 9 | 36 |
| What are the existing development platforms? | Listing of used DEV platforms. | Unity Unreal Engine 4 AppGameKit VR CryEngine | 3 | 10 | 30 |
| Which engine can be used to develop the required apps? | Listing of compatible software engines. | Unity | 2 | 10 | 20 |
| How is monetization defined for in-house developments of the engine? | How the license model works. | Education and nonprofit licenses are free.  Personal license, if project costs remain below €100,000 per year, is free of charge.  From 100k Professional or Enterprise licenses become mandatory. | 1 | 10 | 10 |
|  |  |  |  |  |  |
|  |  |  | *Segment score* | | *96* |

**Hardware modifiability**

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| --- | --- | --- | --- | --- | --- |
| ***Topic*** | ***Defined measurement points*** | ***Degree of achievement*** | ***Rating*** |  |  |
|  |  |  | **Weighting** | **Points** | **Result** |
| Can the hardware playback system be modified? | Compatible for glasses wearers. | The headset can be adjusted for eyeglass wearers with a simple insert. The pupillary distance can be adjusted using a hand controller. Due to the compact design, the settings are limited. | 4 | 6 | 24 |
| Can other components (e.g. for gesture control) be added? | Open interface for HW mod (controller). | There are no open interfaces to connect external sensors. Devices can be connected via the USB-C interface, but operating them is very complex in their development. However, there are forums that deal with this topic. | 2 | 2 | 4 |
| How well can you react to changes in the area of ​​application (adaptation to a changing area of ​​application)? | Effort for calibrating the system. | The system is designed for mobile use. If the game world is not recognized by the system, the configuration for it is started automatically before the start. If the area was previously recorded as a play area, it will be recognized automatically. Even if, for example, you have rearranged some of the furniture in an apartment. | 3 | 10 | 30 |
|  |  |  |  |  |  |
|  |  |  | *Segment score* | | *58* |
|  |  |  | ***Total score*** | | ***289*** |