Hackaton - ActInSpace

DoublEnum Group

2022-11-18, 2022-11-19

Notes

Project idea

- **SpaceY** (name)

Problem Description

Find new ideas based on Earth technologies to build the next Space generation. We are looking for exceptional Earth developments with a clear relevance for Space that promise to have a lasting influence on our daily lives. This can be anything developed on Earth and adapted to the Space environment such as: Hardware, Industrial processes, Applications, Business models, etc...

> Anything that we can make here on earth and put it in space. It has to have a clear purpose. The only possible limitation is our imagination and knowledge

Outcome Key-points

- Profitable (*Viable*)
- Desirability (*Clear market*)
- Feasibility (*Possible*)

Market Examples

- Earth observation and environmental monitoring
- Mobility and transportation
- IoT/M2M Space connectivity
- **Space exploration** and the sustainable use of space
- Agriculture, life sciences and health
- Microgravity and materials research
- New and sustainable technologies and services

Brainstorming Session

- Climate change, monitoring temperature. Heat maps.
- Something hardware related
- 3D printing (related)
- space exploration(s)
- sending a *specimen* (of something) to the 'moon'/space. Make something useful for it.
- [?] the removal of debris from space - space debris or space junk as they do not serve any purpose
- Different types of debris - payload (fragments from wear and tear/ collisions); mission related objects
    - Critical to have a check on them as they cause collisions with space stations/ operational satellite

- '*Google Maps*' for space (solar system)? There doesn't seem to be a model for that.
- VR/AR Traveling
- Look for a distribution table of debris sizes
- Put the data of the debris (Size, Speed, Whatever)

Initial brainstorming outcome: → a space `debris` collecting **robot**

Space debris collecting robot

:= the concluded topic chosen

Presentation/slides

- we don't need to stress about the time - we'll make a slide just to show what functions/features we could have implemented if we were given more time.

What could have been done in the project if we had more time?

If we were given more time, we would have created:

- a more detailed design of the robot (including the internal parts)
- a more detailed design of the robot's debris collectors
- more detailed documentation of the project
- a website with more dynamic content, such custom animations and custom layouts
- a more detailed version of the marketing plan, that is, a more detailed description of the bracelet (as a main marketing product) and the robot itself
- a 3D augmented reality model of the robot
- an introduction video of the project
- custom animation of the model in action (i.e., obtaining the debris, etc.)
- the actual time-frame of the project (i.e., the actual time it took to complete the project)
- a more thorough business plan