Project Charter

Team 25:

Xu Han, Ben Huemann, Randy Pitcher, Austin Reed, Hongda Zeng

Problem Statement:

There is a demonstrated need for an easy to consume information hub within the home. A magic mirror (a device that acts both as a mirror and a display) is the perfect solution to provide information at a glance while users prepare for their day. Our product will be unique in that it will combine the 3D gesture capabilities of the Leap Motion with an interactive display. Previous products relied on static displays (no user input) or rudimentary touch.

Project Objectives:

- Build a device that will display contents from behind a mirror with the Raspberry Pi and a monitor
- Add intuitive 3D gesture control using the Leap Motion to interact with contents displayed on the mirror
- Create web-based contents to display on the mirror that can be interacted with through the 3D gesture input from the Leap Motion
- Develop a web portal where new web-based apps could be developed and accessed by the user community.

Stakeholders:

- Software Developers our team will be the software developers for this project.
- Development Managers the GTA/TA's our team reports to for this project.
- Project Owners this will also be our team for this project.
- Users/Customers the typical user for this product would be an average household with internet.

Project Deliverables:

- A "magic mirror" created with a 2-way mirror, background monitor, Leap Motion, and the Raspberry Pi hardware.
- The software interface for the Leap Motion to communicate with the Raspberry Pi
- Front-end web page that will display information on the mirror
- Interactive web applications that users can use with the mirror
- A website that will allow other developers and users to get more information about our device