Project Proposal Group 1-4

1 MEMBERS

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2 OBJECTIVE OF THE SOFTWARE SYSTEM

The backend comprises of an autonomous underwater vehicle (AUV) that has video cameras attached to its exteriors. The objective of the UI we make is to provide a control panel for the vision system of this AUV to display essential information, such as

- The video feed from the cameras on the AUV, and
- The AUV's state.

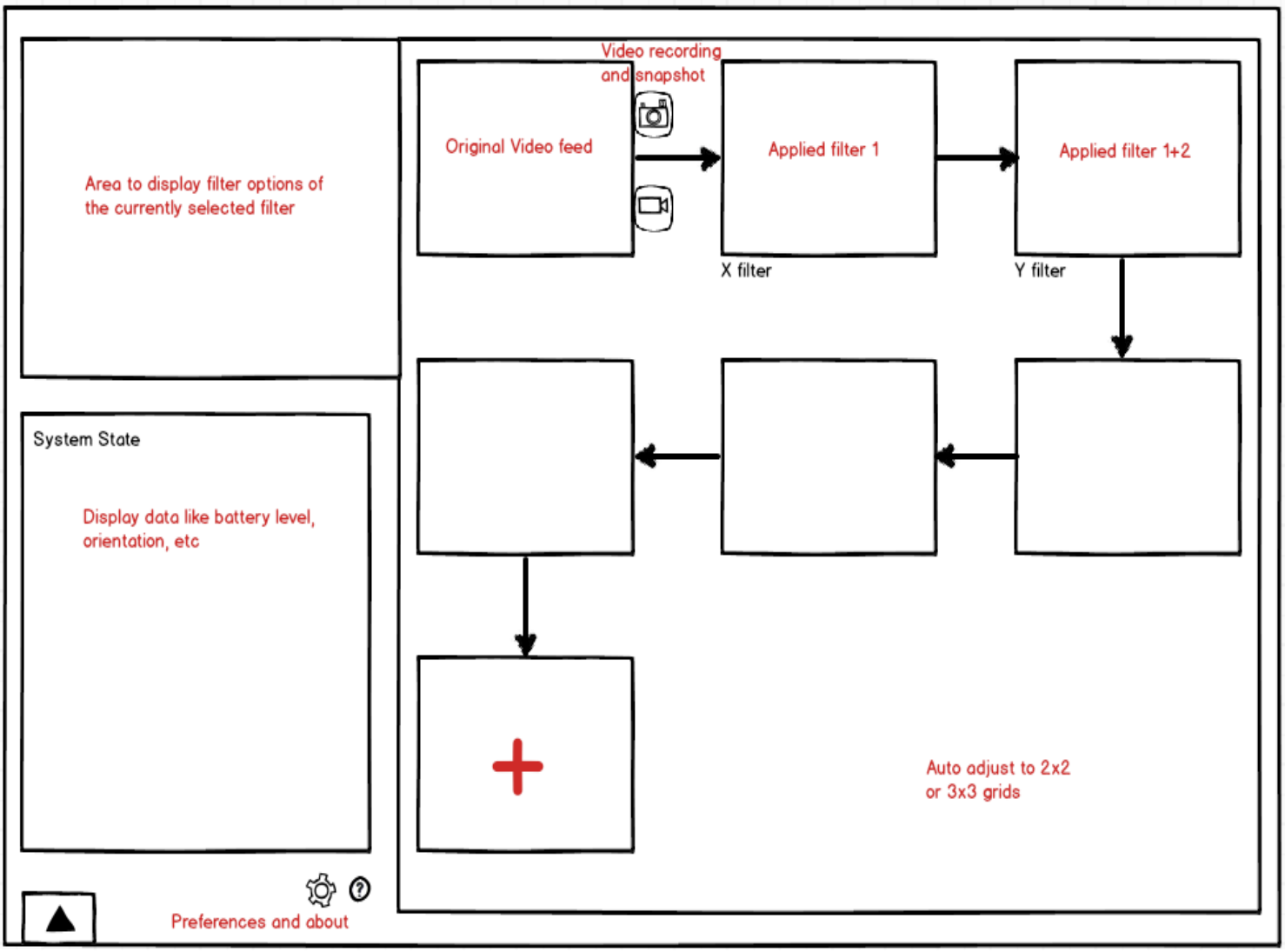
3 MAJOR FUNCTIONALITIES OF THE SYSTEM

- To allow users to define a set of image filter chains that the rest of the AUV's computer vision software system will use to identify objects underwater.
- To display the current state of the AUV (battery status, orientation, etc.)
- To display a log of diagnostic messages.
- To record a video stream or take snapshots of the camera input.

4 MAJOR CHALLENGES OF THE SYSTEM'S USER INTERFACE

- Making effective use of the window space available.
- Providing an intuitive flow of filters.
- Presenting an interface with a gentle learning curve.

5 PRELIMINARY DRAWINGS OF THE USER INTERFACE


Area to display filter options of the currently selected filter
Video recording and snapshot
Original Video feed
Applied filter 1
Applied filter 1+2
X filter
Y filter
System State
Display data like battery level, orientation, etc
Auto adjust to 2x2 or 3x3 grids
drawer
Preferences and about