Agenda

* [MM] & [AP] To update us on progress of valve construction.
* [WB] & [RS] To demonstrate valve operation via website and porting of early scripts.
* [AP] To explain safety mechanisms and which one’s he’s chosen for our system.
* [AD], [MS] and [IH] To present work around for .php limitation.

Minutes

[AP] & [MM] explain hardware additions and changes including the use of a third controlling Arduino, [IH] comments on whether 3 separate Arduino’s are sustainable, [MM] alerts him that it’s the only way. [MM] explains that like before the Arduino will receive the signal from the website to a specific IP and pin, the controller board then decided if the valve requires opening/closing based on the pin. [AP] demonstrated the system by copy and pasting the ip address into a browser window. [MS] states that this could lead to a security problem, but [AD] assured him that the link could be limited to a specific user account via the SQL backend. [IH] said this will need to be implemented for the final edition.

[MM] States that the motor can get warm on repeated use, [MS] suggested the use of heatsink, [IH] said he can supply heat sink. [AP] agreed that although it can work, he’ll need to figure out a rigging.

[MS] Also brought up that the motor is very slow, [AP] understood and will investigate the source code too see if there is a setting he’s missed.

[WB], [RS] & [IH] use the link derived from [AP]’s tests to form buttons on the website on a valve control page. [WB] successfully tests the device. [AD] is critical of the security to which [RS] states that he will action himself to formulate a login and authentication level to the website. [IH] agrees and delegates the task specifically to RS.

[AD] & [IH] present their work arounds. [IH]’s method relies on the use of an AJAX window that displays the SQL data. [AD] argues that the AJAX view is a potential security risk and the server load of the AJAX script is far too taxing. Stating that on my demonstration there was a clear 5 minute lag, which would only get worse as the tables start to be populated.

[AD]’s implementation is based on search boxes for queries based on a per valve, or per location basis. This transfers information to a PHP query which recalls the information on a new page. [IH] states that this method doesn’t seem polished, but [AD] and [RS] both agree that it’s simple, easy to maintain and more importantly more secure. [IH] agrees and actions [AD] to implement his method for the other queries.

Goals for next meetings

* [MM] & [AP] To smoothen motor action and increase reliability by solving heating issue and speed of motion.
* [MS] To research authentication models and the use of SQL permission to assist [RS] in login method.
* [WB] To add in valve methods for all locations and devise the best way to sort through and control valves.
* [AD] Utilise his PHP method for all queries
* [IH] Update website to properly meet aesthetic requirements and streamline user experience.
* [IH] Explore the use of heatsinks to cool microboards.