Oregon Institute of Technology

Automated Smart Blinds Control

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## Strike Log

<https://docs.google.com/document/d/1m5BdP1iNuNPEBAm68awi18pkCLFQLahOfESaxX-dm3w/edit?usp=sharing>

## Communication Protocols

Between 8 am and 6 pm Monday through Saturday, when a team member contacts another team member, the receiver has 2 hours to respond. The sender can repeat the email/text/phone any time after the initial attempt if there is no response.

After 2 hours, the sender will attempt to contact again. If the receiver does not respond, another attempt will be made after one hour. If after the one hour, the receiver does not respond, another attempt will be made after 30 minutes. Thirty minutes after the third attempt, the incident will be recorded in the strike log.

If the receiver does not respond within the first two hours, when she/he does respond, the courtesy of an explanation needs to be extended. If the same person is logged in three times for not responding on time, the team will convene a meeting to discuss the reasons for the problem, which will also result in a strike.

At any time, after the first meeting, if the team sees fit that the problem cannot be handled at the team level, a meeting must be scheduled and conducted with the instructor within two days of contacting the instructor. The instructor will facilitate whether a single meeting and/or separate meeting with different parties will be held to alleviate the problem

## Firing a Group member

The team will work with a Three Strike policy for all issues relating to teammate issues. If any of the stipulations set forth in this document are broken, that team member will receive a strike against them, recorded in the Strike Log.   
  
Team members that have a strike will be required to explain the reason for the infraction. If extenuating circumstances are proven, they will not be penalized for this occurrence, however it will still be logged.

Once a team member has amassed three strikes, a meeting will be scheduled with the project director to determine the outcome. If the director gives his permission to fire a group member, then the group can discuss the option, with the group leader having final say over the firing. This of course can be overruled by the project director, should they choose to do so.

## Habitual Absence

Team members who are 15 minutes or more late to a meeting be given a demerit, which is also recorded separately into the strike log.

Team members will have an opportunity to alert members of their inability to attend a meeting on time no later than two hours before the beginning of the meeting. If they do, they will not receive a demerit, but will be excused up to five times a semester.

Should a team member receive three demerits, they will be given a full strike, will all the above stipulations.

If a team member misses a meeting without 24 hours prior notice, they will be immediately given a strike in the log. However, if notice is given to the group leader of the absence more than 24 hours before the meeting they may be excused. This stipulation shares the five times a semester metric with the tardiness clause.

## Missing Deadline for Parts

Each team member will be responsible for ordering their fair share of components for the whole project. Members will be given parts to order, but the final costs will be divided and evenly split between team members.

The team was given two weeks to order the initial parts from the proposal, which is recorded in the project sketchbook worksheet. Order dates and expected delivery dates are required for all purchases.

Invoices or receipts for parts must be sent to the team leader to verify these dates, as well as keep track of expenses for possible reimbursement purposes.

All parts should be shipped with a service that provides a tracking number, in the cases where parts do not arrive as scheduled.

Likewise, if parts need to be ordered after the initial proposal stage, the purchaser has one week to order the parts, with the stipulation that the components must arrive within three weeks of the initial request date.

Failure to order parts or provide documentation about part orders will be grounds for a strike.

## Parts not Arriving

If parts do not arrive within their three-week timeframe, an alternative solution will be required.

If another vendor sells the parts needed, they will be ordered within 48 hours of the end of the three-week timeframe for the original part. This backup part will be ordered with expedited shipping, at the equal expense of all team members.

Should a backup vendor not be available, then the backup component for that module will be ordered, and the project will have to be adapted to accommodate this change. This backup part will likewise be required to be ordered with expedited shipping.

## Module Schematic Delay

Module wiring and overview schematics will be required before work on a module will begin. These documents must be finished no later than the 10th week of the first semester, which means team members will be required to submit these documents no later than the in-person meeting of the 8th week.

This allows a buffer of two weeks to re-issue workloads if a team member does not follow through on their part. In the case where a team member does not supply their schematics by the 8th week, they will be given a strike and three extra days to produce the schematics. If this is not achieved, then that parts schematic responsibility will be divvied up to the other team members, per the team leader’s discretion.

This will allow the team member who is given the responsibility of producing the schematics a ten-day window to make them, should this problem arise.

Module Hardware/Software Delay

Hardware and software integration will be done on a tiered basis throughout the second semester of the project. Each module of the project will be assigned to a team member to develop.

Modules will be developed with the following tiered system:

* Components will be tested with an Arduino / power to confirm it will power on and operate as they are described.
* Components will be wired up and then tested to make sure the microcontroller can communicate with them.
* Software tests will be done to confirm the module is working according to its specifications.
* Finally, the module will be integrated into the main project and added to the rest of the submodules for regression testing.

Team members will be given deadlines for each of the steps according to the determined complexity of the given component. Should a deadline be missed without warning or approval, it will be grounds for a strike in the log.

## Module Integration Delay

While each module was chosen according to the team's best ideas of compatibility, some issues will inevitably arise in development. Modules will be given time frames according to the Gantt chart described in the schedule documentation. This chart shows expected time frames, as well as completion percentages of each part of the sub-module. Color-coding will be used to indicate whether sections are completed on-time, ahead of time or behind schedule.

Issues with components will be handled according to the nature of difficulty, as described below:

* Component does not operate as specified in the documentation: While this issue may be considered far-fetched, datasheets can contain errors that affect how modules communicate with the processor. If an issue with a component’s datasheet is determined and no work-around is capable, the component will be scrapped for the backup unit as described in the proposal.
* Component wiring schematic does not work properly: If the components circuit does not work as described, the first option will be to seek help from the program director or similar circuit design expert. If one additional week of working with outside assistance does not solve the problem, the module component and circuit will be scrapped for the backup unit.
* Microprocessor software does not work with module: If a sub-module circuit can be tested to be working but the written software does not perform as specified, the group member associated with that sub-module will inform the group to get assistance in debugging the issue. If after one week this does not fix the issue, outside help will be requested of the project director or similar embedded systems developer. If after an additional week this software cannot be made to operate correctly, the alternative part will be swapped for the primary part to conform to the proposal specifications.

In each of these cases, if the alternative sub-module proves to have issues that prevent it from working to the proposed specification, a meeting will be scheduled with the director to discuss the issue and determine how the proposal can be altered to accommodate. This can result in either the sub-module being excluded from the project or substituted for an entirely different function.

## Finding Alternative Employment

Every member of the team is equally important to the success of the project. This includes the project director. Therefore, the director will be held to the same standards as the rest of the team. This means that any interaction with the director that fails to meet the standards of this document will subject them to a strike.

If the director amasses three strikes, a meeting will be called with the group, director and the head of the department to discuss what must be done about this issue. If the department head decides that the director must be fired, the team leader will be responsible for the final decision.

As the project must have a director to be successfully completed, it will be at the discretion of the department head to institute a new director, should the current one be fired.

## References

Links to all current documentation and code are below:

Meeting Notes: [https://docs.google.com/document/d/1mtUfFTfOqqPw2zyaepzclxoFKLoXaqd9-opKlfBveFA/edit#](https://docs.google.com/document/d/1mtUfFTfOqqPw2zyaepzclxoFKLoXaqd9-opKlfBveFA/edit)

Control Documentation:

[https://docs.google.com/document/d/1RbYqEY9eu72LCQb83p9FujjQguTNRpgIjmdwpXFczCA/edit#](https://docs.google.com/document/d/1RbYqEY9eu72LCQb83p9FujjQguTNRpgIjmdwpXFczCA/edit)

Plan Documentation:

[https://docs.google.com/document/d/1JT-my9udzIbytgEOQ\_zhH8BzzEN3PZicPn5nsdUEtqM/edit#](https://docs.google.com/document/d/1JT-my9udzIbytgEOQ_zhH8BzzEN3PZicPn5nsdUEtqM/edit)

 Schedule Documentation:

<https://docs.google.com/document/d/10Dt15eweoR7eboyIdi2v3zc0MMXtXyCiVJ5iHuWIVT8/edit>

GitHub Repository (includes Gantt Chart, datasheets and all code):

<https://github.com/TheJonBovi/AutomatedSmartBlinds>