

Software Development Tasks

- (#1) Create initial project
- (#2) Create basic software architecture template
 - Req: #1
- Establish PWM output
 - (#3) Add PWM config steps to PWMDriver
 - Req: #2
 - (#4) Implement PWMConfig structure
 - Req: #2
 - (#5) Tie together PWM Module with PWMConfig structure
 - Req: #4
- Establish Current inputs
 - (#6) Current Input: Add ADC config steps to MeasurementDriver
 - Req: #2
 - (#7) Config Measurement Timer
 - Req: #2
 - (#8) Implement System Measurement struct
 - Req: #2
 - (#9) Implement measurement ISR in MeasurementDriver
 - Req: #7, #8
- Establish Voltage inputs
 - (#10) Voltage Input: Add ADC config steps to MeasurementDriver
 - Req: #2
 - (#11) Add voltage readings to measurement ISR
 - Req: #9
- (#12) Finish start-up routines
 - Req: #3, #6, #10
- Implement SmoothingComponent
 - (#13) Get SmoothingComponent to retrieve system measurements
 - Req: #9, #11
 - (#14) SmoothingComponent post PWM configurations
 - Req: #4
 - (#15) Implement Smoothing logic
 - Req: #2

Schedule Table

| Month | Week | Development Plan | Test & Demo Plan |
|-------|------|--|--|
| Feb. | 3 | <ul style="list-style-type: none"> (#1) Create initial project | |
| | 10 | <ul style="list-style-type: none"> (#2) Create basic software architecture template (#3) Add PWM config steps to PWMDriver | |
| | 17 | <ul style="list-style-type: none"> (#4) Implement PWMConfig structure (#5) Tie together PWM Module with PWMConfig structure | <ul style="list-style-type: none"> Demo initial PWM signal |
| | 24 | <ul style="list-style-type: none"> (#6) Add ADC config steps to MeasurementDriver (#7) Config Measurement Timer | <ul style="list-style-type: none"> Test accuracy of PWM signal |
| Mar. | 2 | <ul style="list-style-type: none"> (#8) Implement System Measurement struct (#9) Implement measurement ISR in MeasurementDriver | <ul style="list-style-type: none"> Test ADC readings |
| | 16 | <ul style="list-style-type: none"> (#10) Add ADC config steps to MeasurementDriver (#11) Add voltage readings to measurement ISR | <ul style="list-style-type: none"> Demo basic ADC functionality |
| | 23 | <ul style="list-style-type: none"> (#12) Finish start-up routines | <ul style="list-style-type: none"> Test ADC to PWM operation with dummy smoothing functionality |
| | 30 | <ul style="list-style-type: none"> (#13) Get Smoothing Component to retrieve system measurements (#14) Smoothing Component post PWM configurations | <ul style="list-style-type: none"> Demo ADC to PWM operation with dummy smoothing functionality |
| Apr. | 6 | <ul style="list-style-type: none"> (#15) Implement Smoothing logic | <ul style="list-style-type: none"> Test Smoothing logic |
| | 13 | <ul style="list-style-type: none"> (#15) Implement Smoothing logic | <ul style="list-style-type: none"> Test Smoothing logic |
| | 20 | <ul style="list-style-type: none"> Deadline buffer/additional features | <ul style="list-style-type: none"> Demo product |

Timeline

| | February | | | | | | | | March | | | | | | April | | | | | | | |
|------|----------|---|-------|---|-------|---|------|---|-------|---|-------|---|-------|---|-------|---|------|---|-------|--|-------|--|
| Task | 3-9 | | 10-16 | | 17-23 | | 24-1 | | 2-8 | | 16-22 | | 23-29 | | 30-5 | | 6-12 | | 13-19 | | 20-26 | |
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