

Project Status Letter Week 7

Covering Period from 10/7/2018 to 10/14/2018

Prepared by Alex Kmetz and Katie Lee

**Project Completion Chart:**

Team	Tasks Completed	Tasks Planned for Next Week	Proposed Changes	Overdue WBS Items
VSCADA	<p><b>Sam:</b> SCADA.2.2 - SCADA Skeleton Delivered</p> <p>SCADA.2.6 - Set Up Cross-Compilation Delivered</p> <p>SCADA.5.2 - Config / Setup for Sensors Delivered</p> <p><b>Yuqiu:</b> SCADA.2.6 - Set Up Cross-Compilation Delivered</p> <p>SCADA.3.2 - Demo of CAN Bus communication passing on all channels</p>	<p><b>Sam:</b> SCADA.2.4 - Raw &amp; Calibrated Data Written to File</p> <p>SCADA.2.5 - Communication Protocols Delivered</p> <p>SCADA.5.3 - Demo of Receiving Raw Data and Writing to File</p> <p><b>Yuqiu:</b> SCADA.3.7 - Demo of SCADA / Subsystem Interaction</p> <p><b>Zian:</b> SCADA.2.4 - Raw &amp; Calibrated Data Written to File</p> <p>SCADA.4.1 - Block Diagram of UIs Delivered</p> <p>SCADA.4.2 - Back Display Designed and Delivered</p> <p>SCADA.4.3 - Dashboard Interface Designed and Delivered</p> <p>SCADA.4.4 - Demo of Back Display</p>	none	<p><b>Zian:</b> SCADA.4.1 - Block Diagram of UIs Delivered</p> <p>SCADA.4.2 - Back Display Designed and Delivered</p> <p>SCADA.4.3 - Dashboard Interface Designed and Delivered</p> <p>SCADA.4.4 - Demo of Back Display</p>

		SCADA.4.5 - Demo of UI Displaying Received Data		
DYNO	none	<p><b>Alex:</b> DYNO.1.1 - Wiring Layout Delivered</p> <p><b>Hayden:</b> DYNO.3.1 - Testing Plan Delivered</p>	none	none
GLV	<p><b>Max:</b> GLV.1.2 - Safety Loop Integration Plan Delivered</p> <p>GLV.4.1 - Block Diagram of Side Panels Delivered</p> <p><b>Robson:</b> GLV.2.3 - GLV PCB Layout Delivered</p> <p>GLV.2.5 - GLV PCB Ordered and Delivered</p>	<p><b>Max:</b> GLV.8.1 - GLV BoB Mount Block Diagram Delivered</p> <p>GLV.8.2 - GLV BoB Mount Schematic Delivered</p> <p>GLV.2.1 - GLV Block Diagram Delivered</p> <p>GLV.2.2 - GLV Circuit Schematic Delivered</p> <p>GLV.2.3 - GLV PCB Layout Delivered</p> <p>GLV.2.4 - GLV Board BOM Approved</p> <p>GLV.2.5 - GLV PCB Ordered and Delivered</p> <p>GLV.5.1 - Block Diagram Delivered</p> <p>GLV.7.4 - Pi2CAN GPIO Board BOM Delivered</p> <p>GLV.7.5 - Pi2CAN GPIO Board PCB Ordered and Delivered</p> <p><b>Robson:</b> GLV.4.1 - Block Diagram of Side</p>	none	<p><b>Max:</b> GLV.8.1 - GLV BoB Mount Block Diagram Delivered</p> <p>GLV.8.2 - GLV BoB Mount Schematic Delivered</p>

		<p>Panels Delivered</p> <p>GLV.4.2 - Left Side Panel BRB Installed and Tested</p> <p>GLV.4.3 - Left Side Panel Safety Loop Integration</p>		
TSI	<p><b>Tianyu:</b> TSI.4.10 - CANBus Purchased</p>	<p><b>Antonio:</b> TSI.1.1 - Mechanical Drawing of TSI Enclosure Delivered and Approved</p> <p>TSI.5.2 - MCS Integration Testing Plan Delivered and Accepted</p> <p><b>Hongbo:</b> TSI.4.2 - 2018 Firmware Bugs Discovered and Fixed</p> <p>TSI.4.3 - Firmware Testing Board Delivered</p> <p><b>Katie:</b> TSI.2.2 - TSI Circuit Schematic Delivered and Approved</p> <p>TSI.2.3 - TSI PCB Layout Delivered and Approved</p> <p><b>Tianyu:</b> TSI.1.1 - Mechanical Drawing of TSI Enclosure Delivered and Approved</p> <p>TSI.2.2 - TSI Circuit Schematic Delivered and Approved</p> <p><b>Xiaonan:</b> TSI.2.2 - TSI Circuit Schematic Delivered and Approved</p>	none	<p><b>Antonio:</b> TSI.1.1 - Mechanical Drawing of TSI Enclosure Delivered and Approved</p> <p>TSI.5.2 - MCS Integration Testing Plan Delivered and Approved</p> <p><b>Hongbo:</b> TSI.4.2 - 2018 Firmware Bugs Discovered and Fixed</p> <p>TSI.4.3 - Firmware Testing Board Delivered</p> <p><b>Katie:</b> TSI.2.2 - TSI Circuit Schematic Delivered and Approved</p> <p>TSI.2.3 - TSI PCB Layout Delivered and Approved</p> <p><b>Tianyu:</b> TSI.1.1 - Mechanical Drawing of TSI Enclosure Delivered and Approved</p> <p>TSI.2.2 - TSI Circuit Schematic Delivered and Approved</p> <p><b>Xiaonan:</b> TSI.2.2 - TSI Circuit Schematic Delivered and Approved</p>

		<p>TSI.8.3 - Demonstration of Previous TSI Errata Incorporation</p> <p><b>Yuqiu:</b> TSI.4.2 - 2018 Firmware Bugs Discovered and Approved</p> <p>TSI.4.3 - Firmware Testing Board Delivered</p> <p>TSI.4.4 - Firmware I/O Functionality Delivered</p>		<p>TSI.8.3 - Demonstration of Previous TSI Errata Incorporation</p> <p><b>Yuqiu:</b> TSI.4.2 - 2018 Firmware Bugs Discovered and Approved</p> <p>TSI.4.3 - Firmware Testing Board Delivered</p>
TSV	none	<p><b>Alex:</b> TSV.4.1 - PackMan Block Diagram Delivered and Approved</p> <p><b>Hayden:</b> TSV.4.1 - PackMan Block Diagram Delivered and Approved</p> <p>TSV.4.2 - PackMan Circuit Schematic Delivered and Approved</p> <p>TSV.6.1 - Pseudo Code for Algorithm Delivered</p> <p>TSV.1.2 - Pack Mechanical Drawing Submitted and Accepted</p> <p><b>Yishak:</b> TSV.1.1 - Pack High Level Electrical Block Diagram Delivered and Approved</p>	none	<p><b>Alex:</b> TSV.4.1 - PackMan Block Diagram Delivered and Approved</p> <p><b>Hayden:</b> TSV.4.1 - PackMan Block Diagram Delivered and Approved</p> <p>TSV.6.1 - Pseudo Code for Algorithm Delivered</p> <p>TSV.1.2 - Pack Mechanical Drawing Submitted and Accepted</p> <p><b>Yishak:</b> TSV.1.1 - Pack High Level Electrical Block Diagram Delivered and Approved</p> <p>TSV.3.3 - CellMen PCB Layout Complete and Approved</p>

		<p>TSV.3.3 - CellMen PCB Layout Complete and Approved</p> <p>TSV.3.4 - CellMen Purchased and Delivered</p> <p>TSV.5.1 - ChargeMan Block Diagram Delivered and Approved</p>		<p>TSV.3.4 - CellMen Purchased and Delivered</p>
Cooling	<p><b>Hongbo:</b> COOLING.4.2 - Testing Plan for COOLING-TSI Delivered</p>	<p><b>Hongbo:</b> COOLING.1.1 - Mechanical Drawing of Mounting Delivered</p> <p>COOLING.2.3 - Controller Tested Against Testing Plan</p> <p>COOLING.2.4 - Demo of Controller Fan</p>	none	<p><b>Hongbo:</b> COOLING.1.1 - Mechanical Drawing of Mounting Delivered</p> <p>COOLING.2.3 - Controller Tested Against Testing Plan</p> <p>COOLING.2.4 - Demo of Controller Fan</p>
Interconnect	<p><b>Drew:</b> INTER.1.5 - Cable Organization Plan Delivered and Approved</p> <p>INTER.1.7 - Wiring Diagram Printed and Posted in AEC 400</p> <p><b>Weston:</b> INTER.1.6 - Wiring Diagram Updated and Delivered</p> <p>INTER.1.7 - Wiring Diagram Printed and Posted in AEC 400</p>	<p><b>Drew:</b> INTER.1.8 - Wiring Diagram Printed and Posted in AEC 134</p>	none	none
Management	none	<p><b>Weston:</b> M.8.3 - Meet the Team Page Complete</p> <p><b>Katie:</b> M.7.3 - SAE ESF-1 Delivered</p>	-Modify the WBS to better reflect the goals of integration rather than individual completion	<p><b>Weston:</b> M.8.3 - Meet the Team Page Complete</p> <p><b>Katie:</b> M.7.3 - SAE ESF-1 Delivered</p>

		<b>Alex:</b> M.7.1 - SAE Project Management Plan Submitted		<b>Alex:</b> M.7.1 - SAE Project Management Plan Submitted
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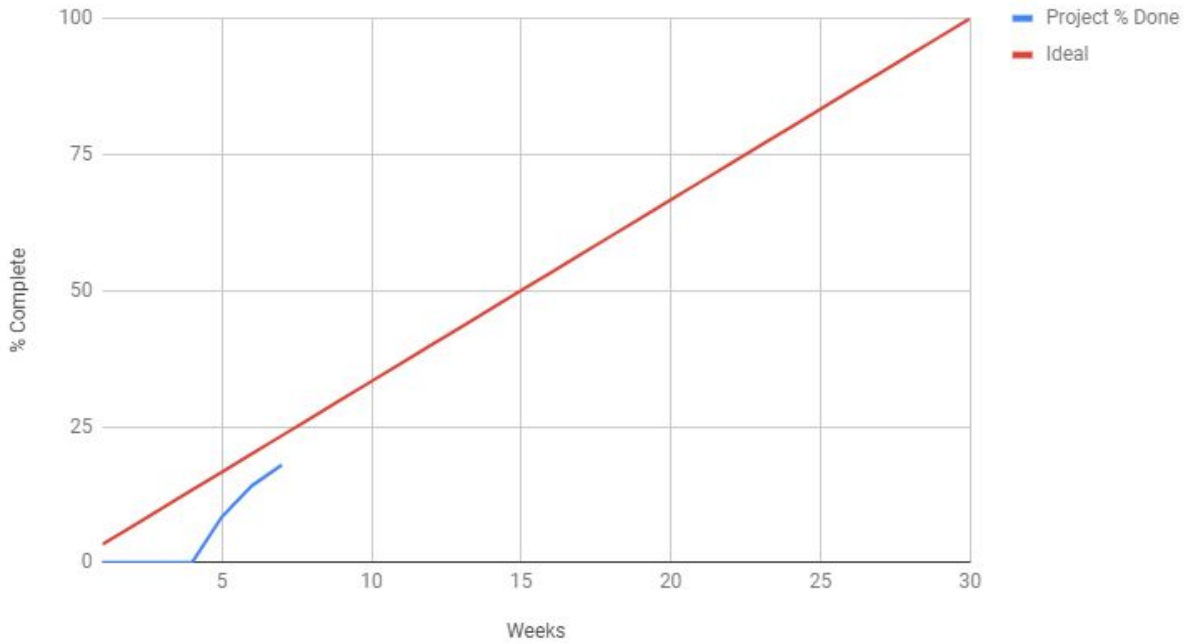
**DYNO Integration Checklist:**

- Motor Acquired
- Motor Controller Acquired
- Motor Mount Fabricated
- Pulley Fabricated
- MCS / TSI / Cooling Fixture Fabricated
- Motor Shaft Fabricated
- GLV Board Fabricated
- TSI Board Fabricated
- SCADA Collecting Data / Writing File
- SCADA Presenting Data on "Nice" Screen
- Safety Loop Functional in Room
- Safety Loop BRB Installed in Room
- Throttle / Brake Control Mechanism Fabricated
- Precharge Circuitry Incorporated in Room
- IMD Installed in Room
- Throttle Isolation Installed in Room
- DYNO Room Wired
- DYNO Wiring Diagram Delivered
- DYNO Testing Plan Delivered

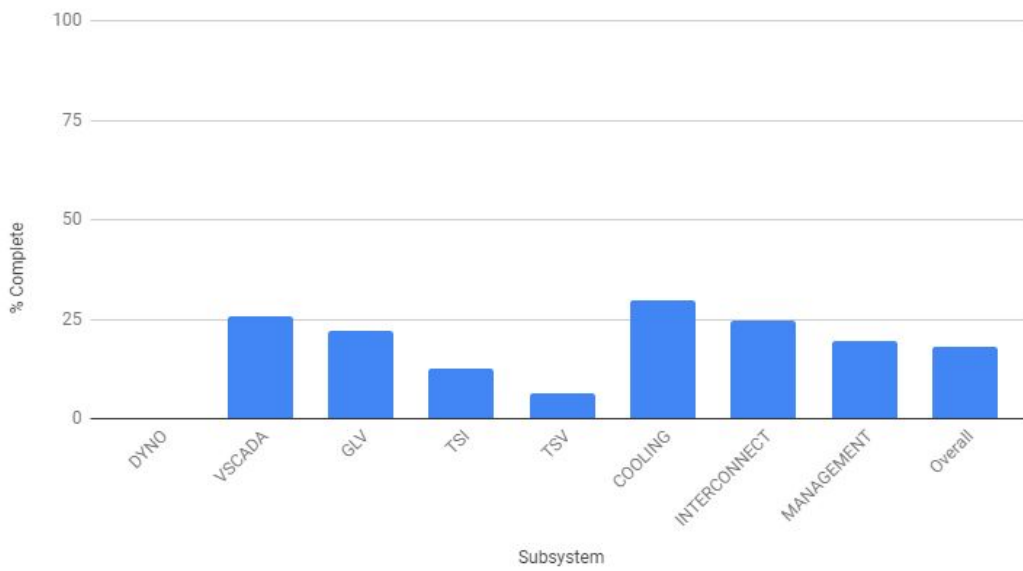
## Project Completion Data:

Total Project Completion: 17.93%

### Project % Done and Ideal

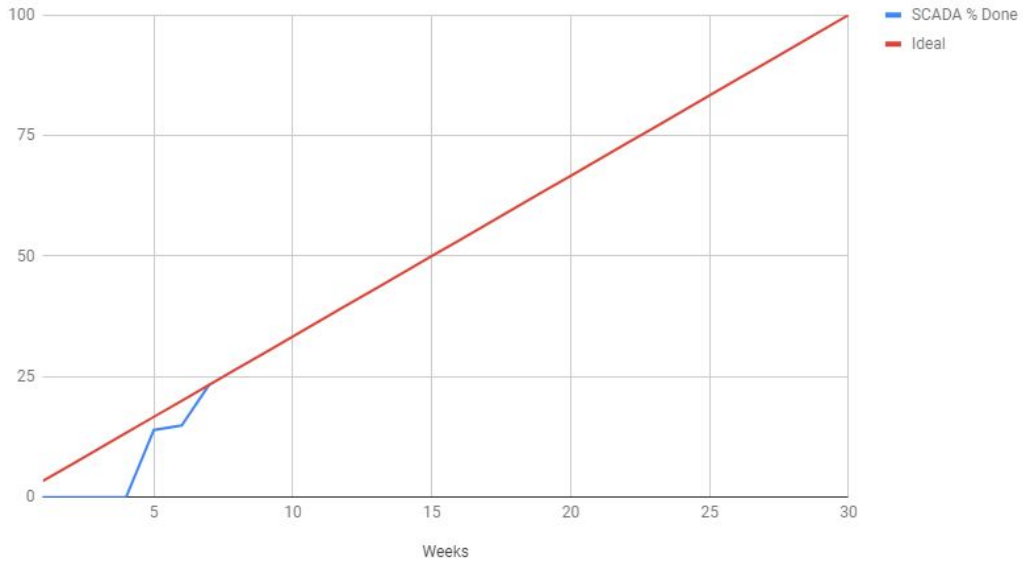


### % Complete vs. Subsystem



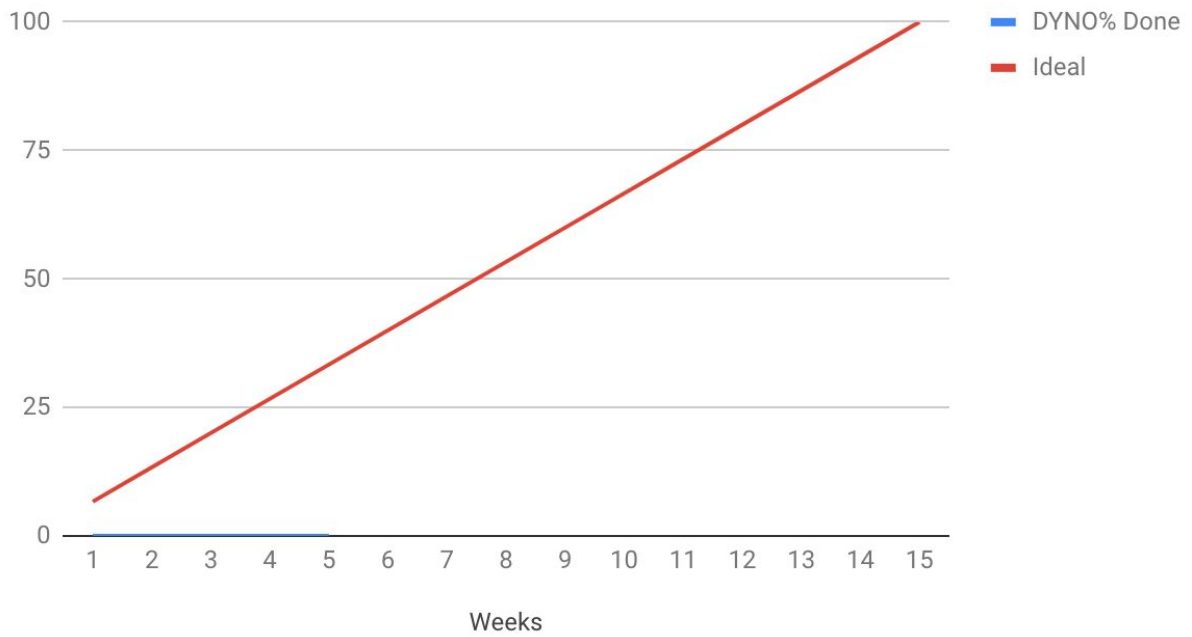
VSCADA Completed: 23.40%

SCADA % Done and Ideal



DYNO Completed: 0%

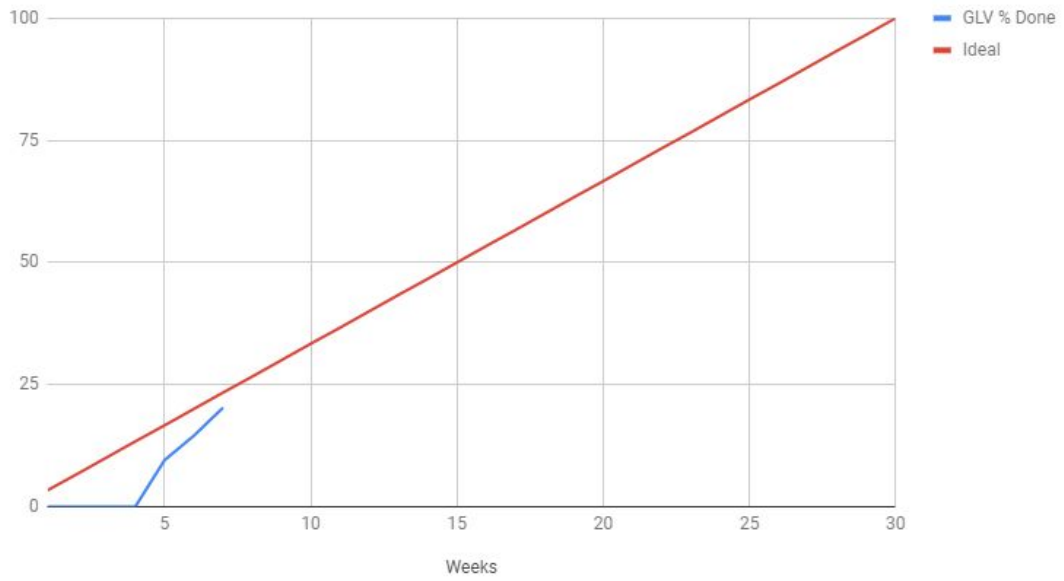
DYNO% Done and Ideal





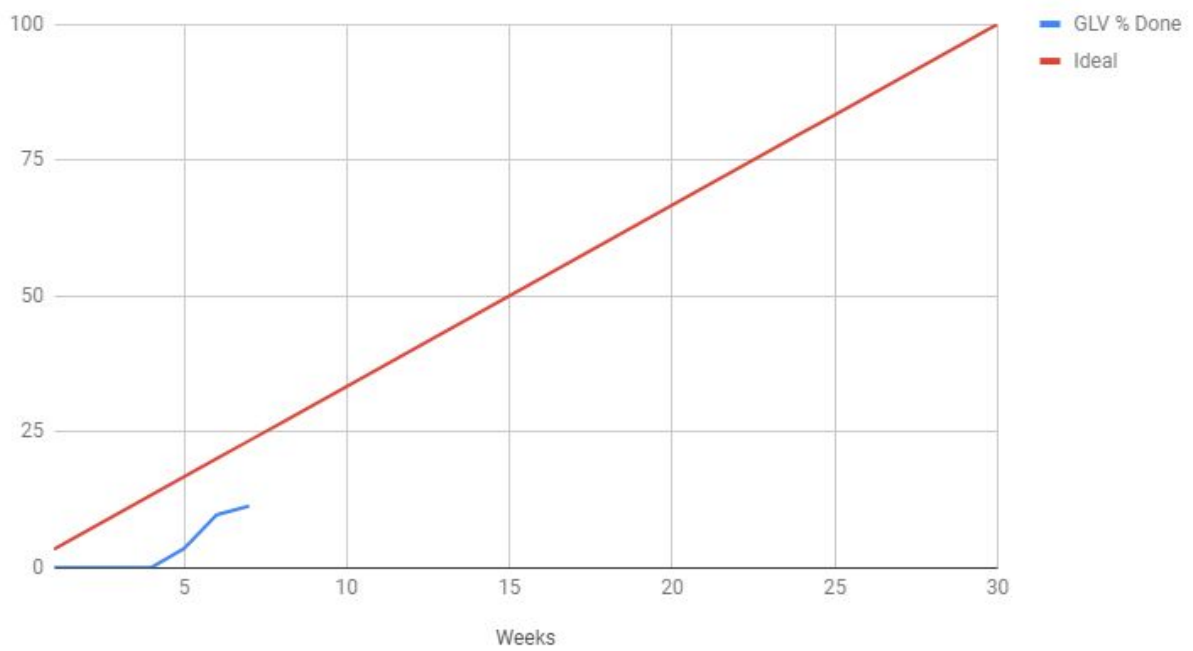
GLV Completed: 20.29%

GLV % Done and Ideal



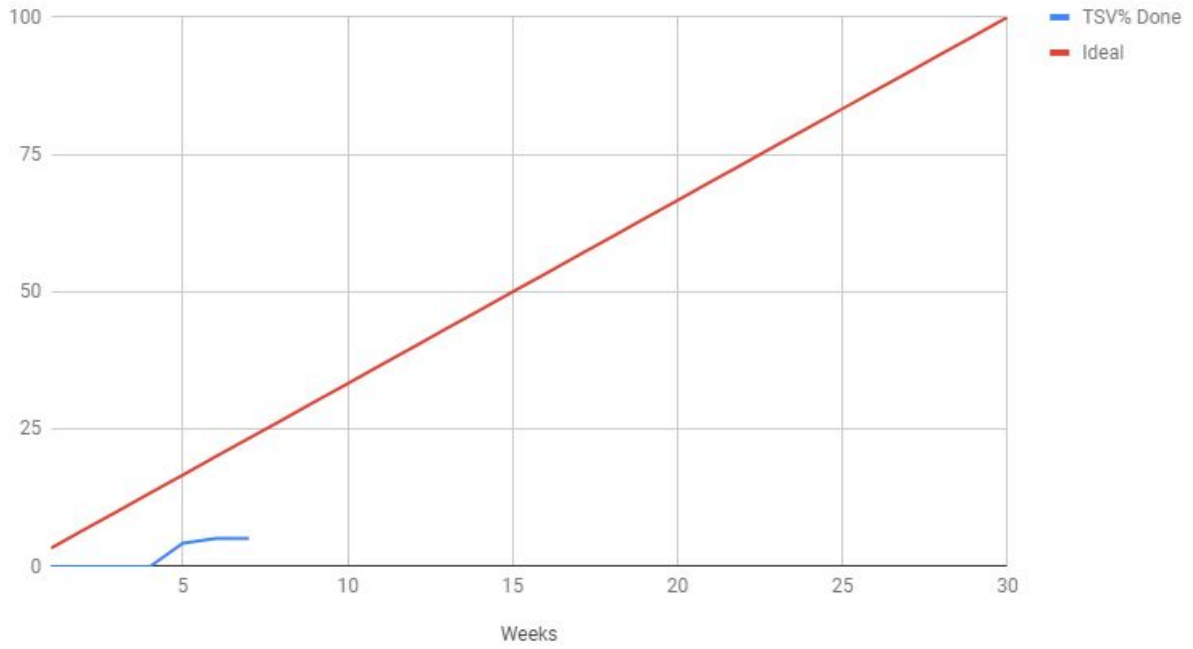
TSI Completed: 11.29%

TSI % Done and Ideal



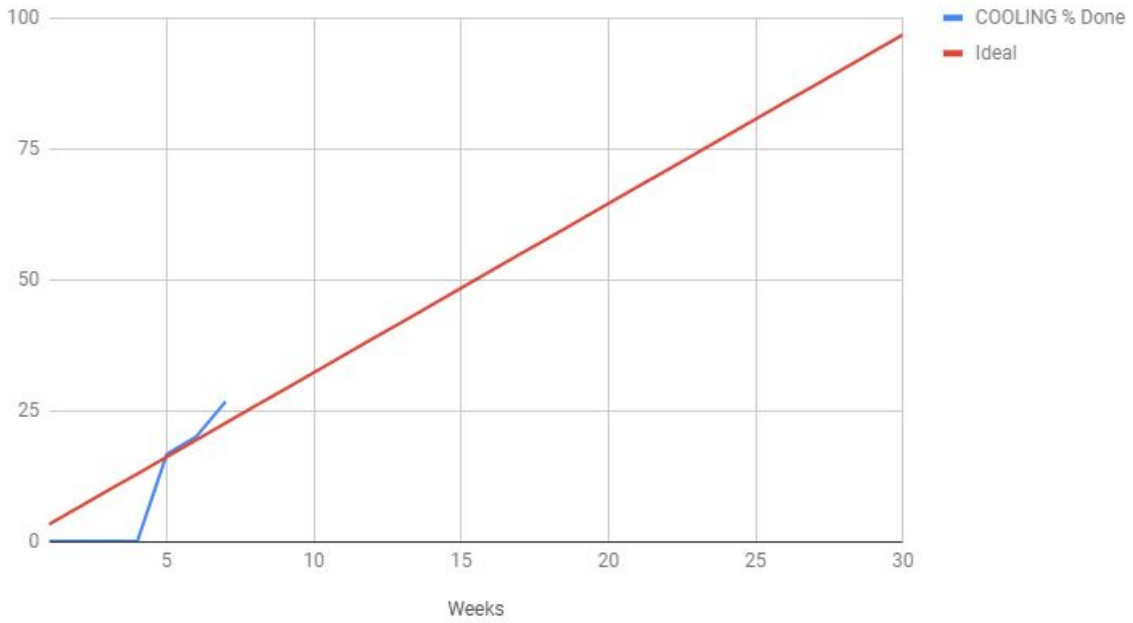
TSV Completed: 5.08%

TSV % Done and Ideal



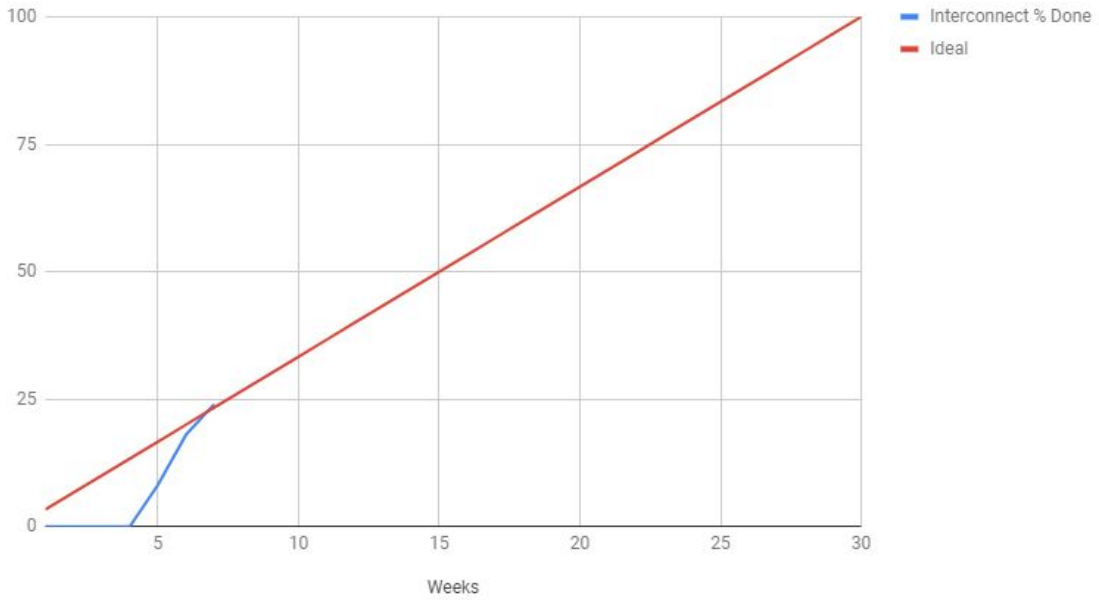
COOLING Completed: 26.67%

COOLING % Done and Ideal



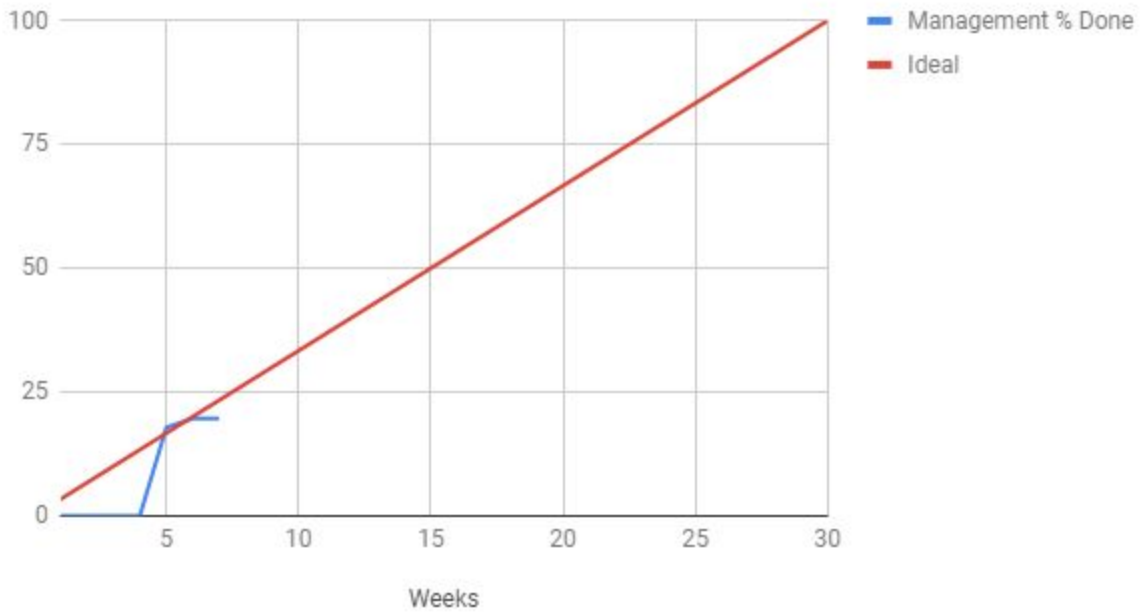
INTERCONNECT Completed: 24%

Interconnect % Done and Ideal



MANAGEMENT Completed: 19.64%

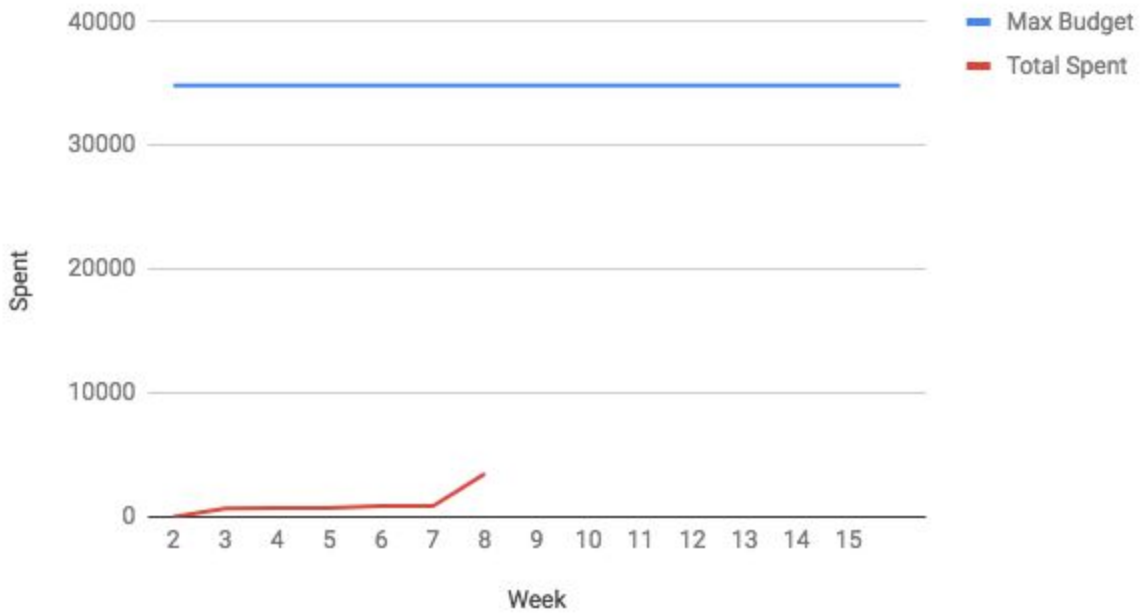
Management % Done and Ideal



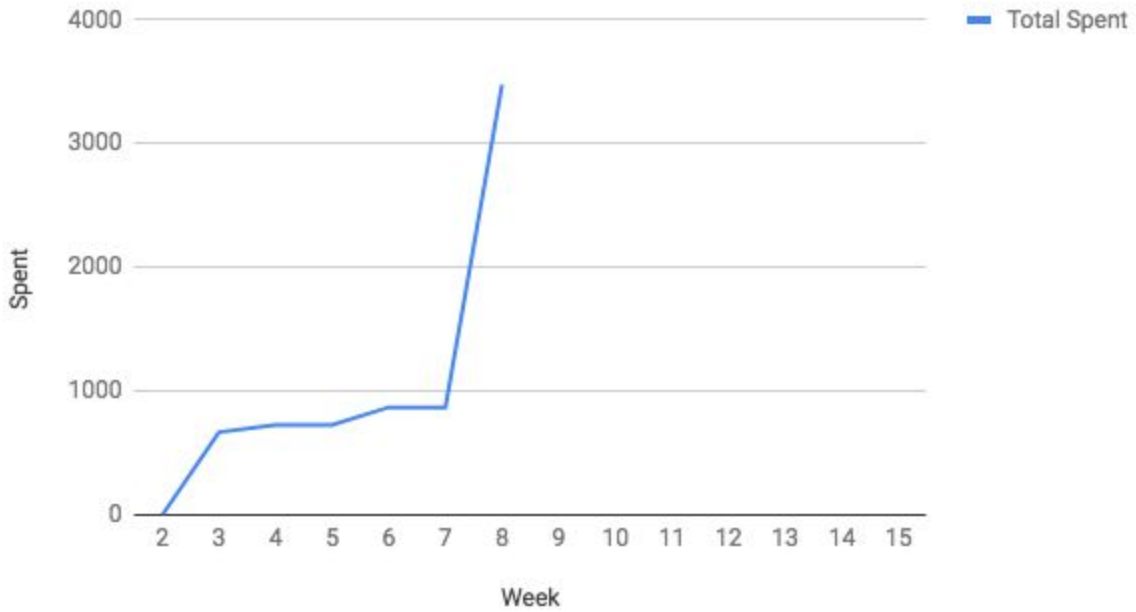
**Purchasing Summary from Previous Week:**

Sub-system	Allocated Budget	Total Spent	Budget Remaining	Percentage Spent
Brakes	3500	0	3500	0.00%
Chassis/Body	5000	0	5000	0.00%
Cooling	620	0	620	0.00%
GLV	780	0	780	0.00%
Interconnect	1500	0	1500	0.00%
Motor	4000	0	4000	0.00%
Pedal/Controls	2000	0	2000	0.00%
Steering	2500	0	2500	0.00%
Suspension	2200	0	2200	0.00%
TSI/MCS	1500	283.25	1216.75	18.88%
TSV	4187	792.55	3394.45	18.93%
VSCADA / DYNO	525	0	525	0.00%
Shipping/Tax	4246.8	98.67	4148.13	2.32%
Registration	2300	2300	0	100.00%
Overall	34858.8	3474.47	31384.33	9.97%

**Total Spent vs. Week**



## Total Spent vs. Week



### Purchase Orders:

<b>10/10/2018</b>							
		<b>ECE Department Material Request</b>					
<b>Course:</b>	ECE 491			<b>Req Number:</b>		4	
<b>Professor:</b>	Nadovich						
<b>Requested By</b>				<b>Vendor:</b>		Amazon	
<b>Name</b>	Hayden Dodge			<b>Web Site</b>		<a href="http://amazon.com">amazon.com</a>	
<b>Email</b>	<a href="mailto:dodgeh@lafayette.edu">dodgeh@lafayette.edu</a>			<b>Phone</b>		5105252328	
<b>Phone</b>	3035882848			<b>Ship By:</b>		Ground	
<b>#</b>	<b>Quantity</b>	<b>Vendor Part</b>	<b>Description</b>	<b>Unit Price</b>	<b>Total Price</b>	<b>Rcvd</b>	
1	2	<a href="https://amzn.to/2RtjDjS">https://amzn.to/2RtjDjS</a>	HiLetgo ESP-WROOM-32 ESP32 ESP-32S Development Board	\$10.99	\$21.98		
				<b>Shipping Fees</b>	\$0.00		
				<b>Grand Total:</b>	\$21.98		
		<b>Instructor Approval:</b>	APPROVED BY PROF. NADOVICH				
		<b>Department Approval:</b>					
		(Over \$500)					

ON HOLD						
ECE Department Material Request						
Course: ECE 491			Req Number: 5			
Professor: Nadovich						
Requested By			Vendor: Adafruit			
Name: Samuel Mwaura			Web Site: <a href="http://www.adafruit.com">www.adafruit.com</a>			
Email: <a href="mailto:mwauras@lafayette.edu">mwauras@lafayette.edu</a>			Phone: Ground			
Phone: 717-882-6143			Ship By: Ground			
#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
1	1	<a href="https://www.adafruit.com/product/2219">https://www.adafruit.com/product/2219</a>	HDMI/DVI Decoder	\$29.95	\$29.95	
2	1	<a href="https://www.adafruit.com/product/3386">https://www.adafruit.com/product/3386</a>	RTC for pi	\$5.95	\$5.95	
3	1	<a href="https://www.adafruit.com/product/1596">https://www.adafruit.com/product/1596</a>	Dashboard Screen	\$39.95	\$39.95	
				Shipping Fees	\$0.00	
				Grand Total:	\$75.85	
Instructor Approval:			APPROVED BY PROF. NADOVICH			
Department Approval: (Over \$500)						

10/10/2018						
ECE Department Material Request						
Course: ECE 491			Req Number: 6			
Professor: Nadovich						
Requested By			Vendor: Digkey			
Name: Hongbo Du			Web Site: <a href="http://www.digkey.com">www.digkey.com</a>			
Email: <a href="mailto:duh@lafayette.edu">duh@lafayette.edu</a>			Phone: 1 (800) 858-3616			
Phone: 484-478-3640			Ship By: Ground			
#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
1	1	<a href="https://bit.ly/2A2TNwp">https://bit.ly/2A2TNwp</a>	development board for pic32mz2048efm064	\$122.57	\$122.57	
				Shipping Fees	\$0.00	
				Grand Total:	\$122.57	
Instructor Approval:			APPROVED BY PROF. NADOVICH			
Department Approval: (Over \$500)						

10/10/2018						
ECE Department Material Request						
Course: ECE 491			Req Number: 7			
Professor: Nadovich						
Requested By			Vendor: B&B electronics			
Name: Hongbo Du			Web Site: <a href="http://buy.advantech-bb.com">buy.advantech-bb.com</a>			
Email: <a href="mailto:duh@lafayette.edu">duh@lafayette.edu</a>			Phone: 1 (800) 858-3616			
Phone: 484-478-3640			Ship By: Ground			
#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
1	1	<a href="https://bit.ly/2ORhcRJ">https://bit.ly/2ORhcRJ</a>	CAN Optical Isolator, 9.3 x 8.6 x3.6 cm	\$160.68	\$160.68	
				Shipping Fees	\$0.00	
				Grand Total:	\$160.68	
Instructor Approval:			APPROVED BY PROF. NADOVICH			
Department Approval: (Over \$500)						



400 Commonwealth Drive  
Warrendale PA 15096-0001 USA  
o 724-776-4841 FED I.D. 25-1494402  
f 724-776-0790 D-U-N-S 07-214-8869  
www.sae.org

FSAE-2V

**INVOICE**

152132  
22600  
710358  
70  
\$ 2,300.00

SHIPPED TO:

LAFAYETTE COLLEGE  
209 HIGH ST  
EASTON PA 18042-7625

PAGE NO 1

BILL TO:

LAFAYETTE COLLEGE  
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EASTON PA 18042-7625

230 Acopian Engrg. Ctr.  
740 High St  
Easton, Pa 18042

CUSTOMER NO.	3892300000	P.O. NO.	
INVOICE NO.	18737897-1	INVOICE DATE	10/10/2018
DATE SHIPPED		SHIP VIA	
TERMS	Payable Upon Receipt		
Formula Hybrid FROM 04/29/2019 TO 05/02/2019			

QTY ORDR	QTY SHIPD	QTY BK ORD	ITEM NUMBER	DESCRIPTION	UNIT PRICE	DISCOUNT	NET
	1		FORMULAHYBRI	Formula Hybrid ✓	2,300.00	0	2,300.00
							SUBTOTAL 2,300.00
			Payment	MC for \$2,300.00 on 10/11/2018 ✓			TOTAL 2,300.00
							2,300.00

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RETURN A COPY WITH PAYMENT TO: SAE P.O. BOX 79572 BALTIMORE, MD 21279-0572 USA	CHARGE TO:	<input type="checkbox"/> MasterCard	<input type="checkbox"/> Visa	<input type="checkbox"/> American Express	
Contact Customer Service for Bank Wire Information	Expiration Date:	MM/YYYY			
CUSTOMER NO. 3892300000	Credit Card No.				
INVOICE NO. 18737897-1	Cardholder Signature				