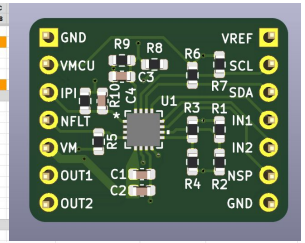
Updates

TASK TITLE	OWNER	START DATE	DUE DATE	DURATION	% OF TASK COMPLETE
Satellite Status		9/16/24	12/13/24	87	0%
Operating Modes	Perrin Tong	9/16/24	12/13/24	87	0%
State Machine Design v1	Perrin Tong	9/16/24	12/13/24	87	0%
State Machine Design v2	Perrin Tong	9/16/24	12/13/24	87	0%
State Machine Design v3	Perrin Tong	9/16/24	12/13/24	87	0%
State Machine Design v4	Perrin Tong	9/16/24	12/13/24	87	0%
Power		9/16/24	11/30/24	19	0%
Power Budget	Varun Rajesh	9/16/24	9/30/24	14	40%
Battery Board v1	Varun Rajesh	9/16/24	10/5/24	19	0%
Battery Board v2	Varun Rajesh	9/29/24	10/19/24	20	0%
Battery Board v3	Varun Rajesh	10/13/24	11/2/24	19	0%
Battery Board v4	Varun Rajesh	10/27/24	11/16/24	19	0%
Battery Board v5	Varun Rajesh	11/10/24	11/30/24	20	0%
Solar Panel Test v1	Haoran Zheng	9/16/24	10/5/24	19	0%
Solar Panel Test v2	Haoran Zheng	9/29/24	10/19/24	20	0%
Solar Panel Test v3	Haoran Zheng	10/13/24	11/2/24	19	0%
Solar Panel Test v4	Haoran Zheng	10/27/24	11/16/24	19	0%
Solar Panel Test v5	Haoran Zheng	11/10/24	11/30/24	20	0%
High Performance Compute		9/16/24	12/13/24	87	1%
Compute Selection	Sebastian Perez	9/16/24	12/13/24	87	5%



Typical Orbit		Orbit Time:	90	Minutes							
Team	Subsystem	Count	Supply Voltage (V)	Quiescent Current (A)	Typical Current (A)	Max Current (A)	Typical Usage Time / Orbit (%)	Worst Case Usage Time / Orbit (%)	Minimum Energy / Orbit (Wh)	Typical Energy / Orbit (Wh)	Worst Case Energy / Orbit (Wh)
Avionics	RP2040	1	3.3	0.00100	0.03000	0.06000	100	100	0.0050	0.1485	0.2970
Vision	Camera (OV5640)	6	1.5	0.00002	0.14000	0.20000	5	20	0.0000	0.0945	0.5400
Vision	Jetson Orin	1	12.0	0.25000	0.50000	0.83333	10	50	0.4500	0.9000	7.5000
GNC	GPS (S1216V8)	1	3.3	0.04000	0.04000	0.04000	20	100	0.0396	0.0396	0.1980
Comms/Ops	LoRA (433M30S)	1	5.0	0.00100	0.02000	0.63000	5	15	0.0004	0.0075	0.7088
Vision	Image Pre-Processor (STM32H7)	6	3.3	0.00100	0.05000	0.20000	20	100	0.0059	0.2970	5.9400
GNC	Star Tracker (STM32H7)	1	3.3	0.00100	0.05000	0.20000	20	100	0.0010	0.0495	0.9900
GNC	Magnetorquer	3	5	0.00100	0.00100	0.00100	50	100	0.0113	0.0113	0.0225
Avionics	Cell Heaters	6	5	0.00100	0.05000	0.10000	10	20	0.0045	0.2250	0.9000

Blockers

- No blockers yet

Milestones Achieved

- Coil driver dev board created
- Tasks divided amongst everyone
- Initial power budget created

Looking ahead

- Finalize camera board architecture and payload interface
- Solar panel power generation test board
- Reflow PyCubed boards for dev
- Reflow Argus-1 battery board for dev
- Finalize DRV8235 driver development

Interfaces

- *Vision:* Payload compute platform (TPU/GPU)
- *Vision:* Determine if pre-processing is necessary
- *Vision:* Requirements for cameras
- *Mechanical:* Solar cell layout/orientation
- *GNC:* Determine sensor requirements (GPS/Sun Sensor/IMU/etc.)
- *Comms/Ops*: Radio selection and division of labor