

Team Number	306
Project Name	Weather Station
Team Members	Aarshon George Alex Comeaux Ian Anderson Kushagra Dashora
Subsystem	Sensor Suite

Power Budget

All Major Components	Component Name	Part Number	Voltage Supply Range	#	Absolute Maximum Current	Total Current (mA)
	PIC 18 Microcontroller	PIC18F27Q10-I/SO	1.8V-5.5V	1	250	250
	Rotary Hall Effect Sensor	AS5600L-ASOM SOIC8 LF T&RDP	3.0V-3.6V	1	100	100
	Humidity & Temperature Sensor	HIH6030-021-001	2.3V-5.5V	1	1	1
	Barometer	MS580301BA01-00	1.8V-3.6V	1	1.4	1.4
	Comparator	MCP6541RT-E/OT	1.6V-5.5V	1	2	2
+3.3V Rail	Component Name	Part Number	Voltage Supply Range	#	Absolute Maximum Current	Total Current (mA)
	PIC 18 Microcontroller	PIC18F27Q10-I/SO	1.8V-5.5V	1	250	250
	Rotary Hall Effect Sensor	AS5600L-ASOM SOIC8 LF T&RDP	3.0V-3.6V	1	100	100
	Humidity & Temperature Sensor	HIH6030-021-001	2.3V-5.5V	1	1	1
	Barometer	MS580301BA01-00	1.8V-3.6V	1	1.4	1.4
	Comparator	MCP6541RT-E/OT	1.6V-5.5V	1	2	2
					Subtotal	354.4
					Safety Margin	25%
					Total Current Required	443
1. Regulator	+3.3V Buck Converter	LMR16006YQ3DDCRQ1	4.0V-40V	1	600	600
					Remaining Current on +3.3V Rail	157
External Power Source	Component Name	Part Number	Voltage Supply Range	Output Voltage	Current Supply Capacity	Total Current (mA)
External Power Source 1						0
3.3V Power Rail	+3.3V Buck Converter	LMR16006YQ3DDCRQ1	4.0V-40V	1	600	600
Remaining Current on External Power Source						-600