

Criteria	Acceleration Based 8x8 LED Dot Matrix Driver	Air Pressure Level Controller	Light Based LED Driver	Temperature Controller	Water Level Controller
Reading Sensor Data					
Reading BMP280 using I2C module		24		24	
Reading TSL2561 using I2C module			24		
Reading ADXL345 using I2C module	28				
Reading water level sensor using ADC module					19
Collecting 256 samples and taking average		4	4	4	9
Output Components					
Driving LED matrix using SPI module	13				
Driving LED matrix as desired (angle of gradient ranges)	13				
Driving micro air pumps using a transistor		4			
Driving micro air pumps as desired (fill-discharge air)		14			
Driving output LED using PWM and a transistor			4		
Driving output LED as desired (brightness)			14		
Driving resistive heating pad using a transistor				4	
Driving resistive heating pad as desired (stop/continue heating)				14	
Driving water pumps using a transistor					4
Driving water pumps as desired (fill-discharge water)					14
On-board LEDs					
Driving on-board LEDs (red-green-blue) according to the specification	8	8	8	8	8
LCD Screen					
Showing range/thresholds on the LCD screen		4	4	4	4
Showing current pressure/light/temperature/water levels on the LCD screen		24	24	24	24
Showing angles on the screen	28				
Range/Thresholds					
Setting the range/thresholds using potentiometer (ADC)		8	8	8	8
Report	10	10	10	10	10
BONUS (15)					
Setting the range/thresholds using keypad		4	4	4	4
Dot plot graph on the LCD screen	9.5	7	7	7	7
Brightness of the on-board green LED proportional to the current pressure/light/temperature/water level		4	4	4	4
Brightness of the LED on the 8x8 LED matrix proportional to the acceleration	5.5				
TOTAL	115	115	115	115	115