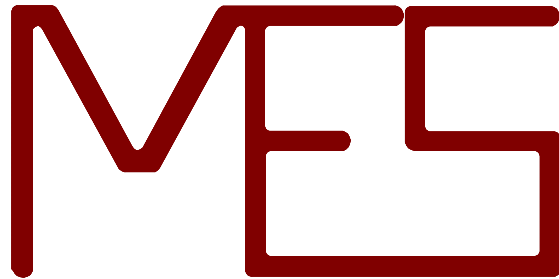
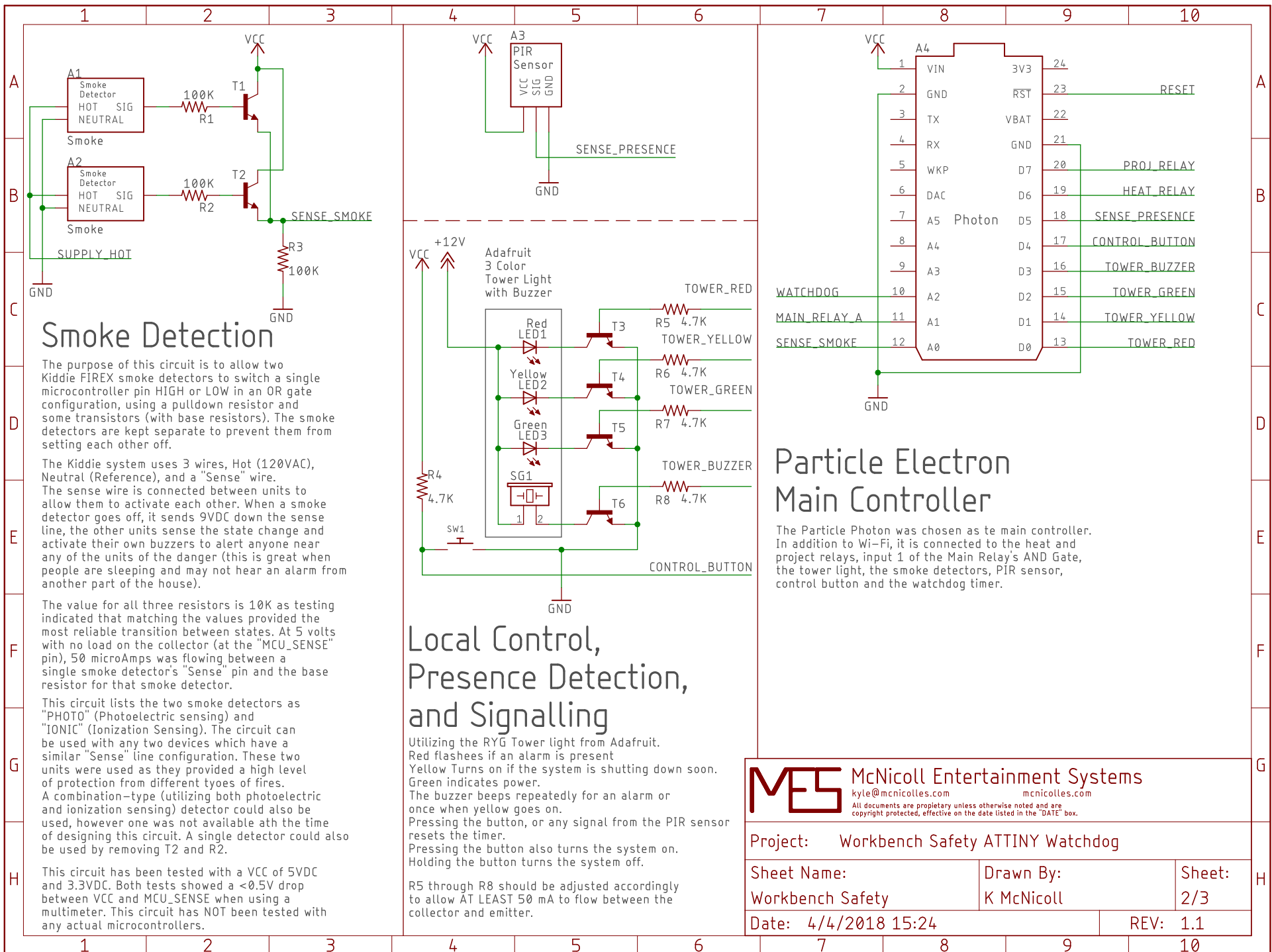
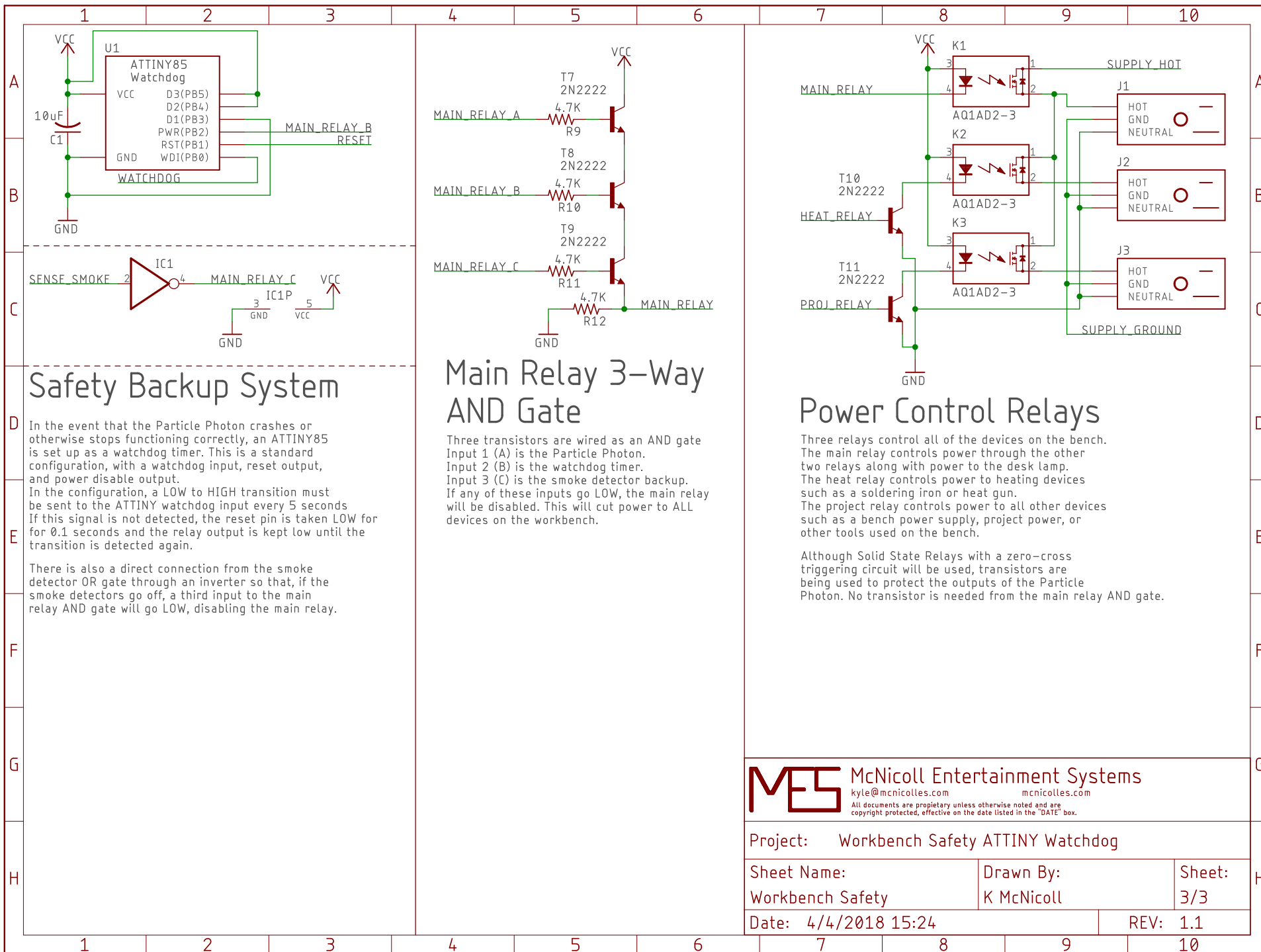


	1	2	3	4	5	6	7	8	9	10	
A				McNicoll Entertainment Systems							A
B				Project:	Workbench Safety ATTINY Watchdog						B
				Drawn By:	K McNicoll						
	kyle@mcnicolles.com			Date:	4/4/2018 15:24						
	mcnicolles.com			Revision:	1.1						
	Concept Design										
C	Concept: Create a safety system for a workbench including presence detection, fire detection, power cutoff, Wi-Fi control and notification and a watchdog monitoring backup.				Design Parameters and Restrictions: Utilize an off-the-shelf smoke detector Have full encryption for Wi-Fi communication Have a safety backup which can shutdown the system in the event of main controller failure. Have local control and indication of emergencies.						C
D											D
E	Main Components: Main Controller – Particle Photon Safety Backup – ATTINY85 Power Control – Three Solid State Relays with zero cross triggering Smoke Detection – Kiddie FIREX Smoke Detectors Presence Sensing – Standard PIR Sensor Indicators – Adafruit Red, Yellow, Green, Buzzer Tower Light				Misc. Notes: Combination (Ionizing/ Photoelectric) smoke detectors were not available at the time of design. As a replacement, two smoke detectors are used and connected to an OR gate IMPORTANT NOTE: This is entirely a concept design and is in no way intended to be a complete schematic. <						





McNicol Entertainment Systems

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Project: Workbench Safety ATTINY Watchdog

Sheet Name:

Workbench Safety

Drawn By:

K McNicoll

Sheet:

3/3

Date: 4/4/2018 15:24

REV: 1.1