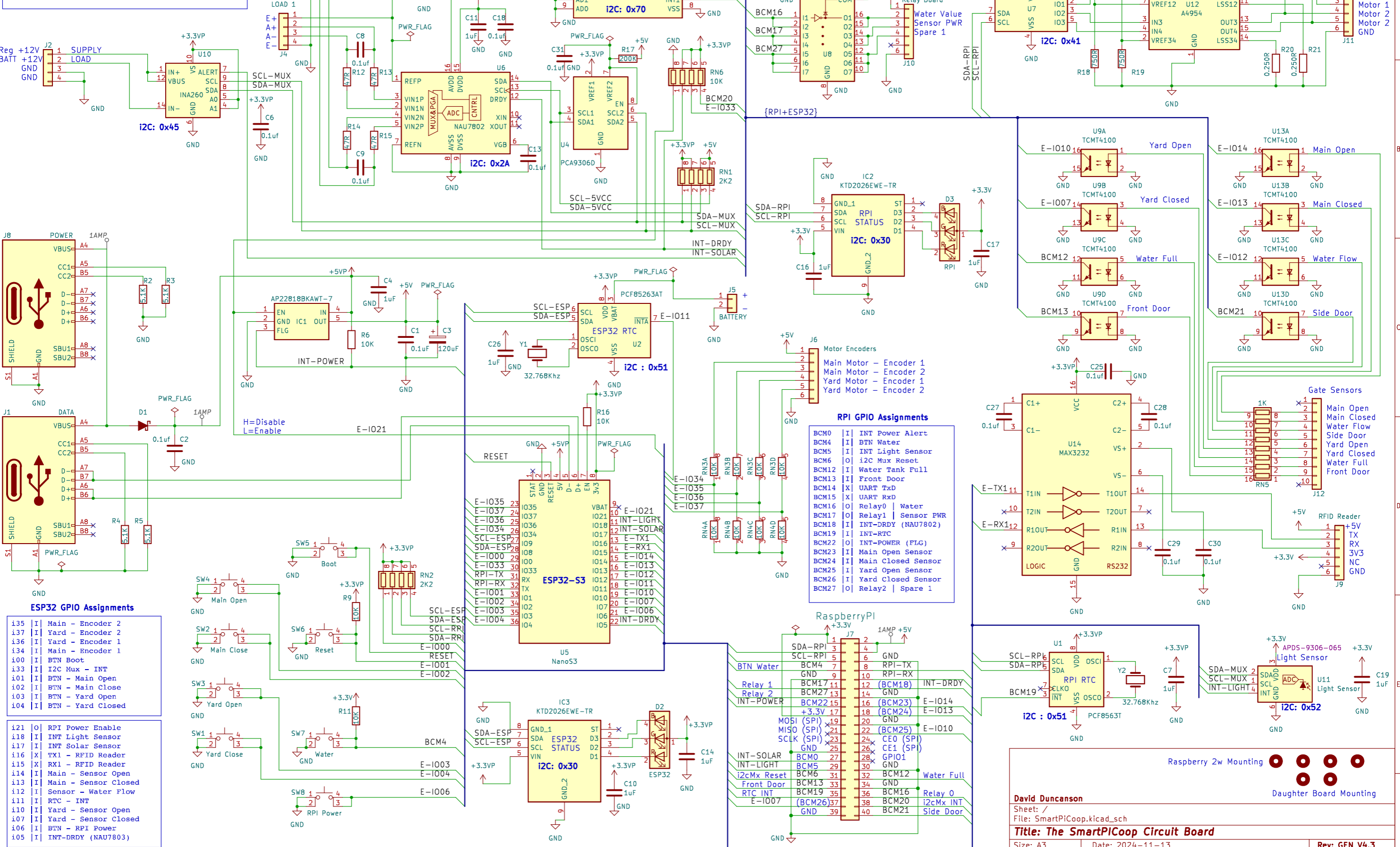


ESP32 I2C Address Mapping

PCF8563AT	ESP	0x51	ESP RTC
KTD2026EWE	ESP	0x30	ESP Status LED
PCA9641	ESP	0x70	I2C Bus Master Mux
KTD2026EWE	RPI	0x30	RPI Status LED
PCF8563T	RPI	0x51	RPI RTC
PCA9641	RPI	0x70	I2C Bus Master Mux
NAU7802	MUX	0x2A	Load Cell Sensor
INA260	MUX	0x45	Power Monitor
APDS-9306-065	MUX	0x52	Light Sensor



ESP32 GPIO Assignments

i35	[I]	Main - Encoder 2
i37	[I]	Yard - Encoder 2
i36	[I]	Yard - Encoder 1
i34	[I]	Main - Encoder 1
i00	[I]	BTN Boot
i01	[I]	I2C Mux - INT
i01	[I]	BTN - Main Open
i02	[I]	BTN - Main Close
i03	[I]	BTN - Yard Open
i04	[I]	BTN - Yard Closed
i21	[O]	RPI Power Enable
i18	[I]	INT Light Sensor
i17	[I]	INT Solar Sensor
i16	[X]	TX1 - RFID Reader
i15	[X]	RX1 - RFID Reader
i14	[I]	Main - Sensor Open
i13	[I]	Main - Sensor Closed
i12	[I]	Sensor - Water Flow
i11	[I]	RTC - INT
i10	[I]	Yard - Sensor Open
i07	[I]	Yard - Sensor Closed
i06	[I]	BTN - RPI Power
i05	[I]	INT-DRDY (NAU7803)

RPI GPIO Assignments

BCM0	[I]	INT Power Alert
BCM4	[I]	BTN Water
BCM5	[I]	INT Light Sensor
BCM6	[O]	i2c Mux Reset
BCM12	[I]	Water Tank Full
BCM13	[I]	Front Door
BCM14	[X]	UART Tx
BCM15	[X]	UART Rxd
BCM16	[O]	Relay0 Water
BCM17	[O]	Relay1 Sensor PWR
BCM18	[I]	INT-DRDY (NAU7802)
BCM19	[I]	INT-RTC
BCM22	[O]	INT-POWER (FLG)
BCM23	[O]	Main Open Sensor
BCM24	[I]	Main Closed Sensor
BCM25	[I]	Yard Open Sensor
BCM26	[I]	Yard Closed Sensor
BCM27	[O]	Relay2 Spare 1