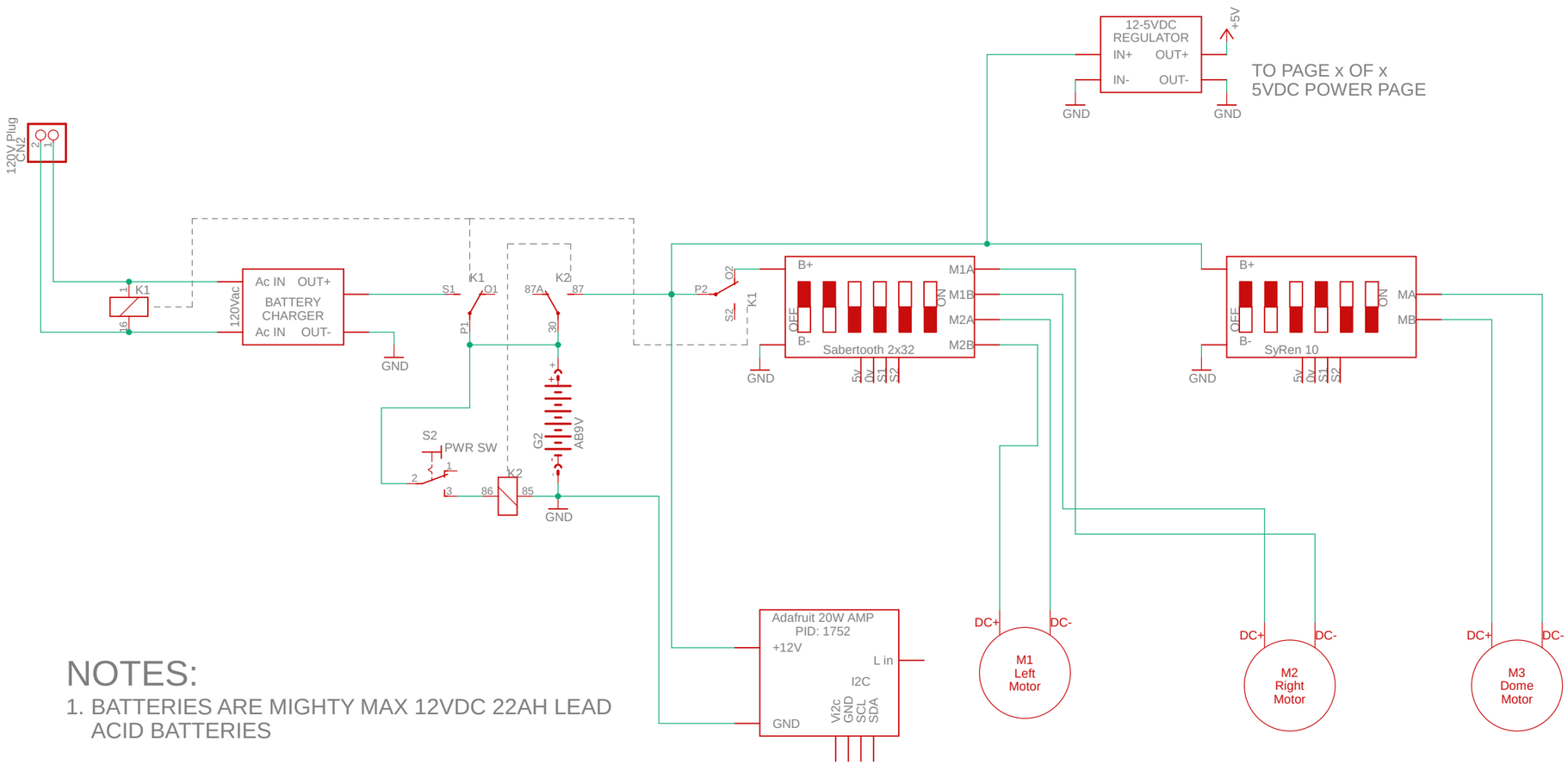

NOTES:

1. BATTERIES ARE MIGHTY MAX 12VDC 22AH LEAD ACID BATTERIES
2. RELAY K1 IS USED TO ISOLATE BATTERIES DURING CHARGING
3. RELAY K1 AUTOMATICALLY SWITCHES WHEN 120VAC IS CONNECTED TO CHARGER
4. RELAY K2 IS CONTROLLED VIA SWITCH S1. THIS ISOLATES THE DRIVE ESC ALLOWING THE REST OF THE DROID TO OPERATE.
5. DIP SWITCHES ON SABERTOOTH AND SYREN SHOW WHAT POSITION THEY NEED TO BE SET WHITE BLOCK INDICATES SWITCH, RED BLOCK IS GAP

NOTES:

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3) BLUE LINES ARE BUSSES (MULTIPLE WIRES SHOWN AS ONE)

ASTROMECH PADAWAN/S.H.A.D.O.W.
VADER7071 VARIANT

TITLE: 12VDC POWER

Document Number: SHEET 1 OF 7

REV: 0

Date: not saved!

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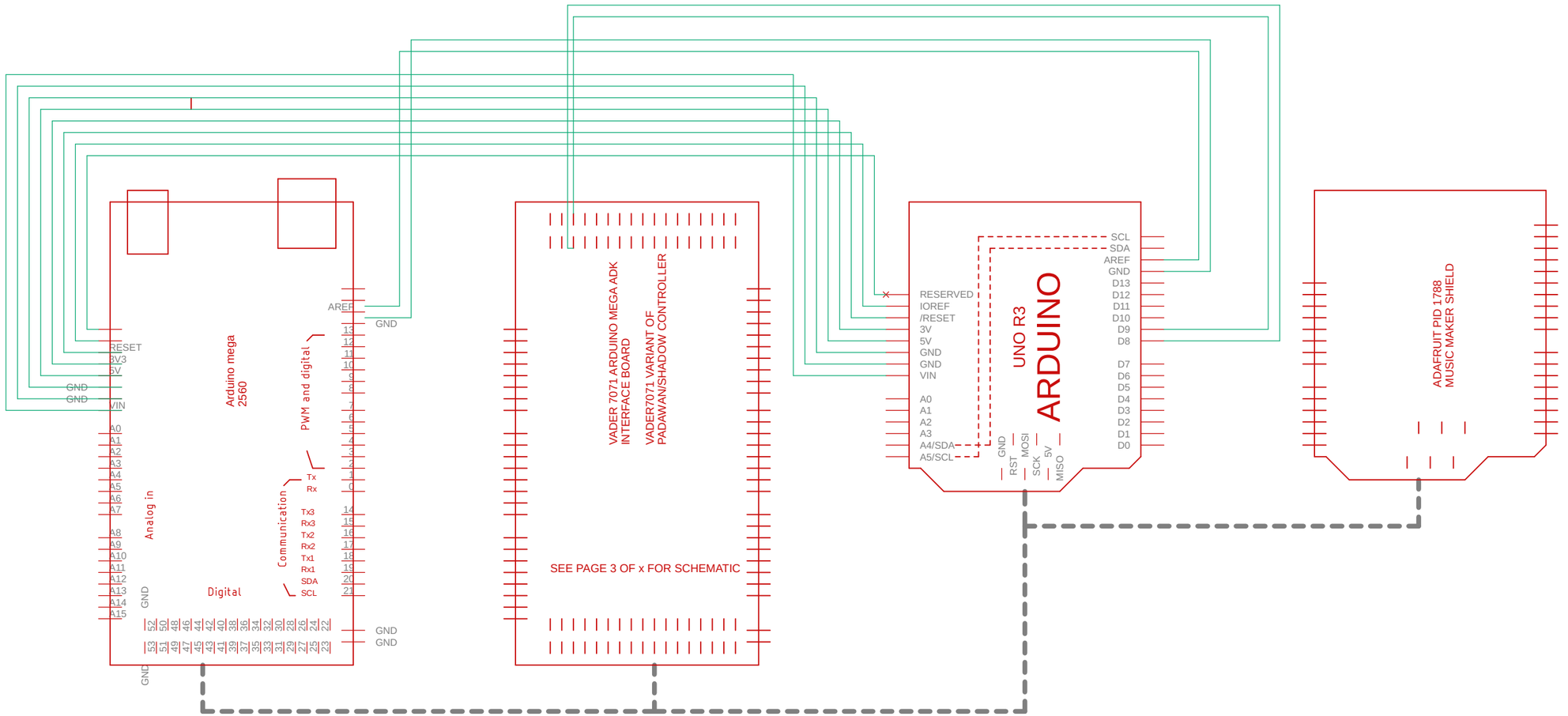

NOTES:

1. ADK INTERFACE BOARD AND ARDUINO LEONARD USE PASS THROUGH HEADERS
2. DOTTED LINE INDICATES ALL BOARDS ARE STACKED ON EACH OTHER.
3. WIRING CONNECTIONS SHOW WHAT PINS PASS FROM ONE PROCESSOR TO ANOTHER
4. IT IS UNDERSTOOD EACH SHIELD HAS ALL PINS CONNECTED TO RESPECTIVE PROCESSOR
5. TRIM OFF ANY PIN ON LEONARDO NOT CONNECTED FROM LEONARDO TO MEGA ADK

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ASTROMECH PADAWAN/S.H.A.D.O.W.
VADER7071 VARIANT

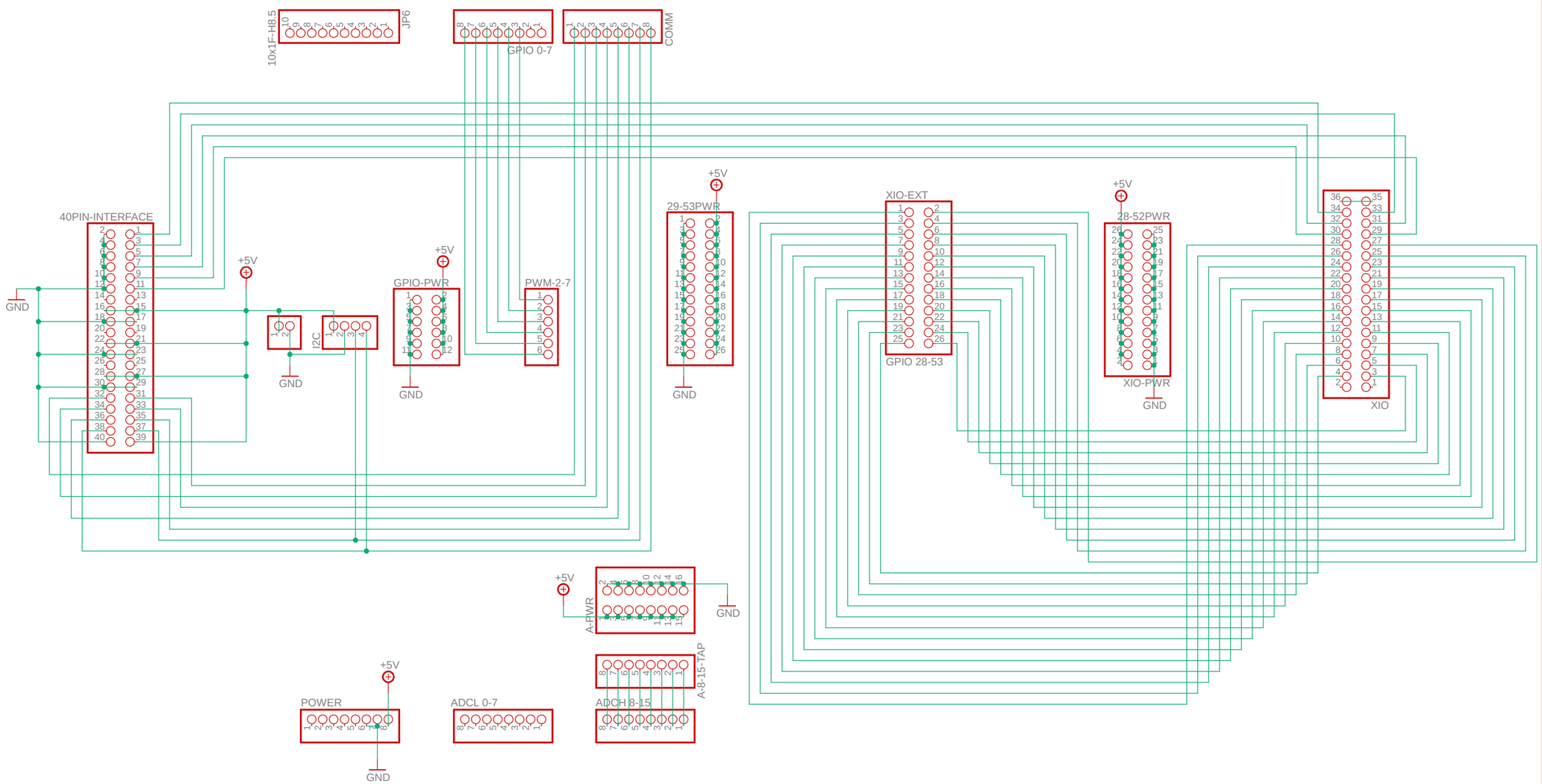
TITLE: ARDUINO SHIELD STACKING

Document Number: SHEET 2 OF 7

REV: 0

Date: not saved!

Sheet: 2/7



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ASTROMECH PADAWAN/S.H.A.D.O.W.
VADER7071 VARIANT

TITLE: ADK INTERFACE BOARD

Document Number:
SHEET 3 OF 7

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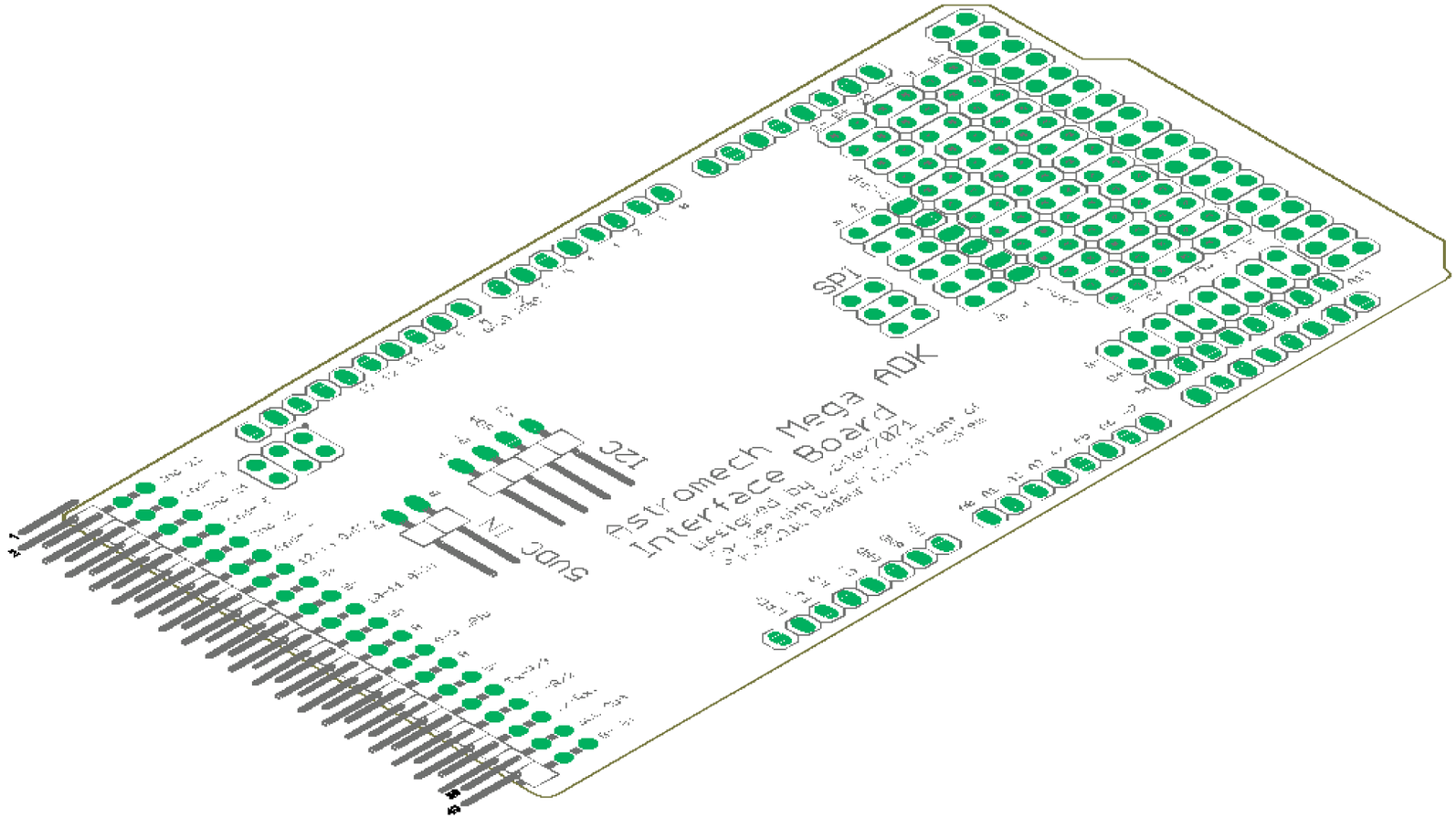
PIN	ADK PIN	FUNCTION
1	GPIO 22	COIN SLOT LED 1
2	GROUND	DC NEGATIVE
3	GPIO 23	COIN SLOT LED 2
4	GROUND	DC NEGATIVE
5	GPIO 24	COIN SLOT LED 3
6	GROUND	DC NEGATIVE
7	GPIO 25	COIN SLOT LED 4
8	GROUND	DC NEGATIVE
9	GPIO 26	COIN SLOT LED 5
10	GROUND	DC NEGATIVE
11	GPIO 27	COIN SLOT LED 1
12	GROUND	DC NEGATIVE
13	GPIO 13	SERVO CONNECTION
14	GPIO 12	SERVO CONNECTION
15	DC+	DC POSITIVE
16	DC+	DC POSITIVE
17	GROUND	DC NEGATIVE
18	GROUND	DC NEGATIVE
19	GPIO 11	SERVO CONNECTION
20	GPIO 10	SERVO CONNECTION
21	DC+	DC POSITIVE
22	DC+	DC POSITIVE
23	GROUND	DC NEGATIVE
24	GROUND	DC NEGATIVE
25	GPIO 9	BOTTOM UTILITY ARM SERVO
26	GPIO 8	TOP UTILITY ARM SERVO
27	DC+	DC POSITIVE
28	DC+	DC POSITIVE
29	GROUND	DC NEGATIVE
30	GROUND	DC NEGATIVE
31	RX3	SERIAL DATA 3 RX
32	TX3	SERIAL DATA 3 TX
33	RX2	SERIAL DATA 2 RX
34	TX2	SERIAL DATA 2 TX
35	RX1	SERIAL DATA 1 RX
36	TX1	SERIAL DATA 1 TX
37	SDA	I2C SDA
38	SCL	12C SCL
39	DC+	DC POSITIVE
40	GROUND	DC NEGATIVE

1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40



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ASTROMECH PADAWAN/S.H.A.D.O.W.
VADER7071 VARIANT

TITLE: INTERFACE BOARD PINOUTS

Document Number: SHEET 4 OF 7 | REV: 0

Date: not saved! | Sheet: 4/7

BODY

+12V

12-5VDC REGULATOR

IN+ OUT+

IN- OUT-

+5V

GND GND

SR7

SLIP RING

BODY DOME

+5V

D8

D7

GND

SLIP RING

U$14

PWM-SERVO-DRIVER-16CH

J1.1 GND

J1.2 V+

JP3.6 JP3.5 JP3.4 JP3.3 JP3.2 JP3.1

GND.1 OE.1 SCL.1 SDA.1 VCC.1 V+.1

JP4.6 JP4.5 JP4.4 JP4.3 JP4.2 JP4.1

GND.2 OE.2 SCL.2 SDA.2 VCC.2 V+.2

0	C0.PWM C0.V+ C0.GND	C0.1 C0.2 C0.3
1	C1.PWM C1.V+ C1.GND	C1.1 C1.2 C1.3
2	C2.PWM C2.V+ C2.GND	C2.1 C2.2 C2.3
3	C3.PWM C3.V+ C3.GND	C3.1 C3.2 C3.3
4	C4.PWM C4.V+ C4.GND	C4.1 C4.2 C4.3
5	C5.PWM C5.V+ C5.GND	C5.1 C5.2 C5.3
6	C6.PWM C6.V+ C6.GND	C6.1 C6.2 C6.3
7	C7.PWM C7.V+ C7.GND	C7.1 C7.2 C7.3
8	C8.PWM C8.V+ C8.GND	C8.1 C8.2 C8.3
9	C9.PWM C9.V+ C9.GND	C9.1 C9.2 C9.3
10	C10.PWM C10.V+ C10.GND	C10.1 C10.2 C10.3
11	C11.PWM C11.V+ C11.GND	C11.1 C11.2 C11.3
12	C12.PWM C12.V+ C12.GND	C12.1 C12.2 C12.3
13	C13.PWM C13.V+ C13.GND	C13.1 C13.2 C13.3
14	C14.PWM C14.V+ C14.GND	C14.1 C14.2 C14.3
15	C15.PWM C15.V+ C15.GND	C15.1 C15.2 C15.3

Arduino mega 2560

RESET 3V3 5V GND GND VIN

A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15

Analog in

GND

Digital

PWM and digital

AREF GND 13 12 11 10 9 8 7 6 5 4 3 2 1 0

Communication

Tx Rx Tx3 Rx3 Tx2 Rx2 Tx1 Rx1 SDA SCL

14 15 16 17 18 19 20 21

GND GND

52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22

53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23

GND

UNO R3 ARDUINO

SCL SDA AREF GND D13 D12 D11 D10 D9 D8 D7 D6 D5 D4 D3 D2 D1 D0

RESERVED IOREF /RESET 3V 5V GND GND VIN A0 A1 A2 A3 A4/SDA A5/SCL

GND RST MOSI SCK 5V MISO

ADAFRUIT PID 1788 MUSIC MAKER SHIELD

1	D13	D12	30
2	3V3	D11	29
3	AREF	D10	28
4	A0	D9	27
5	A1	D8	26
6	A2	D7	25
7	A3	D6	24
8	A4	D5	23
9	A5	D4	22
10	A6	D3	21
11	A7	D2	20
12	5V	GND	19
13	RESET	RESET	18
14	GND	RX0	17
15	VIN	TX1	16

Mini-B USB

RESET BUTTON

ICSP

ARDUINO_NANO2
Nano 328P V3.0

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ASTROMECH PADAWAN/S.H.A.D.O.W.
VADER7071 VARIANT

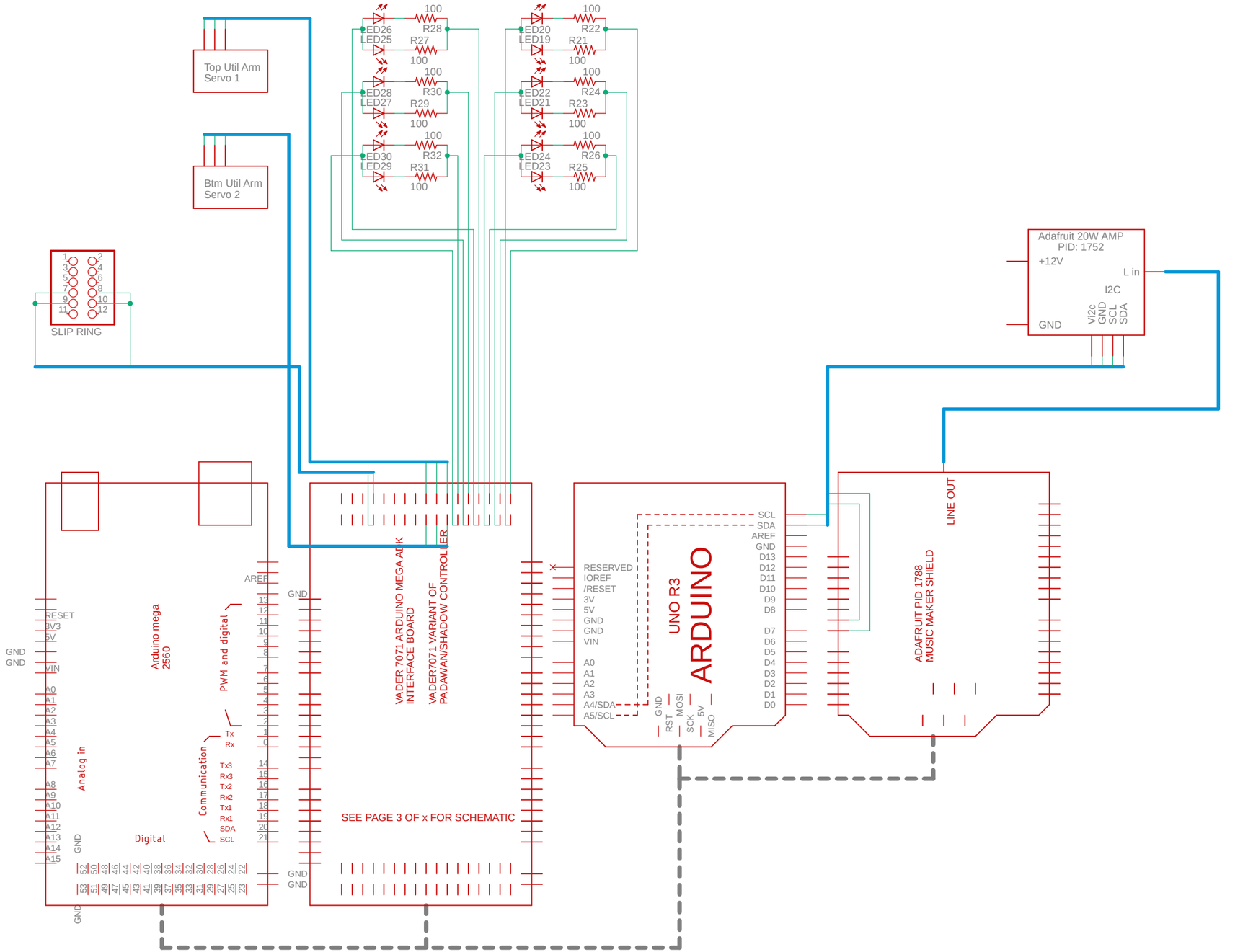
TITLE: 5VDC POWER SCHEMATIC

Document Number: SHEET 5 OF 7

REV: 0

Date: not saved!

Sheet: 5/7



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VADER7071 VARIANT

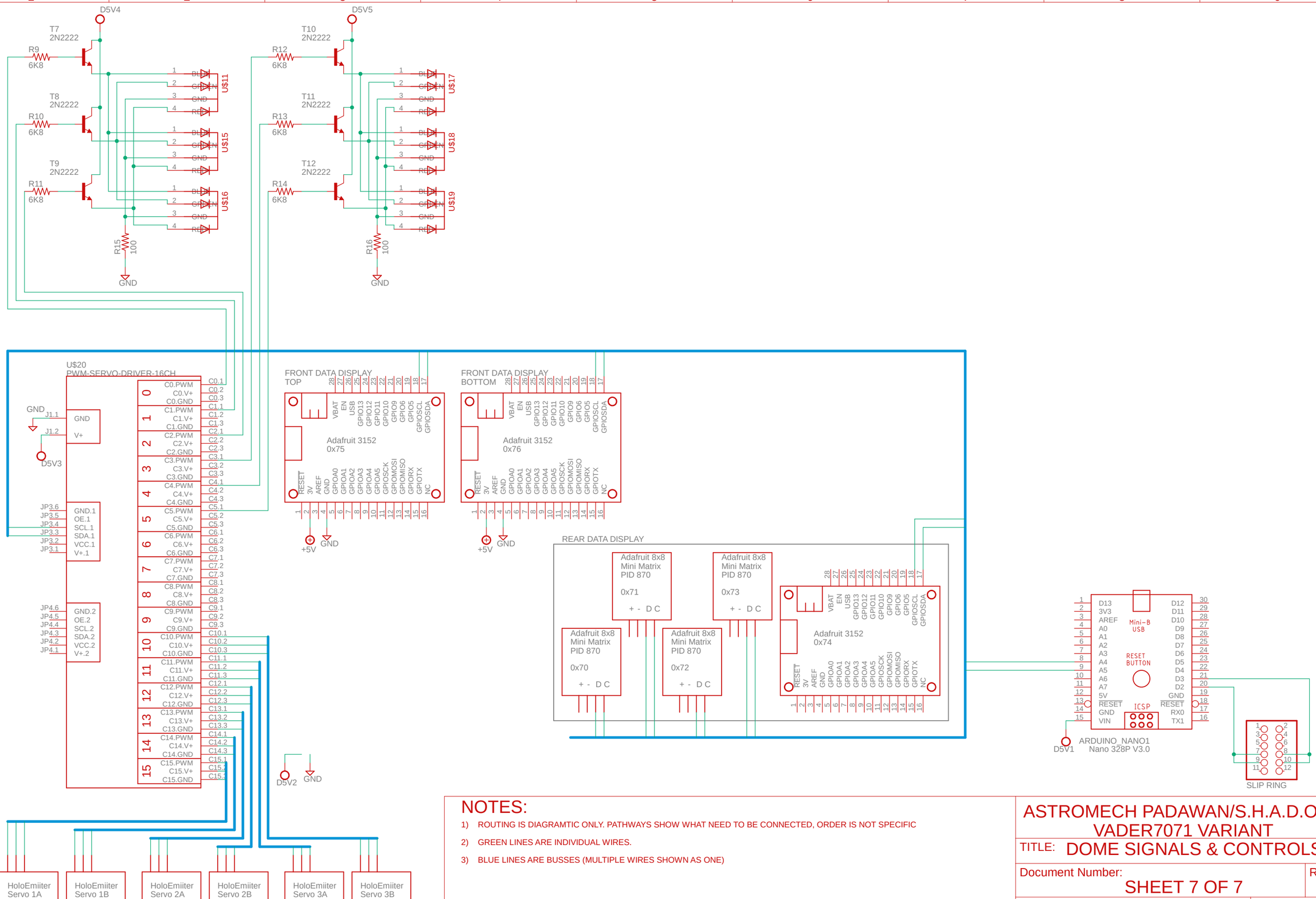
TITLE: BODY SIGNALS & CONTROLS

Document Number: SHEET 6 OF 7

REV: 0

Date: not saved!

Sheet: 6/7



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TITLE: DOME SIGNALS & CONTROLS

Document Number: SHEET 7 OF 7

REV: 0

Date: not saved!

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