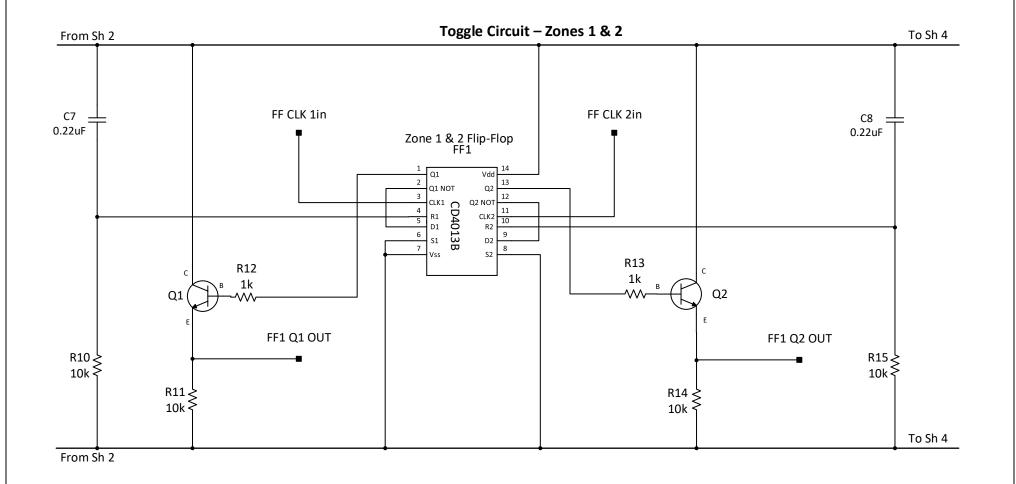


Designation	Digi-Key Part Number	ey Part Number Part Number Descript	
C3	399-9867-1-ND	C320C104J5R5TA7301	CAP CER 0.1UF 50V X7R RADIAL
C4, C5, C6	495-4985-1-ND	B32529C1224J189	CAP FILM 0.22UF 5% 100VDC RADIAL
R3	RNF14FTD100KCT-ND	RNF14FTD100K	RES 100K OHM 1/4W 1% AXIAL
R4, R5, R6	RNF14FTD10K0CT-ND	RNF14FTD10K0	RES 10K OHM 1/4W 1% AXIAL
R7, R8, R9	RNF14FTD1K00CT-ND	RNF14FTD1K00	RES 1K OHM 1/4W 1% AXIAL
SW1, SW2, SW3	277-1273-ND	1725656	CONN TERM BLOCK 2.54MM 2POS
Hex Inv.	296-33604-5-ND	SN7414N	IC HEX SCHMITT-TRIG INV 14-DIP
Hex Inv.	609-4712-ND	DILB14P-223TLF	CONN IC DIP SOCKET 14POS TIN

- Onboard wire connection
- o External wire connector
- Wire junction

	Gear.ca press St.					
Software Automation Integration	SIZE	SIZE FSCM NO		DWG NO		REV
DRAWN Mike McMahon,	A.Sc.T.			Toggle Contro	l Circuit	А
ISSUED March 2	9, 2018 SCALE	NTS		100001-PCB-01	SHEET	2 OF 7

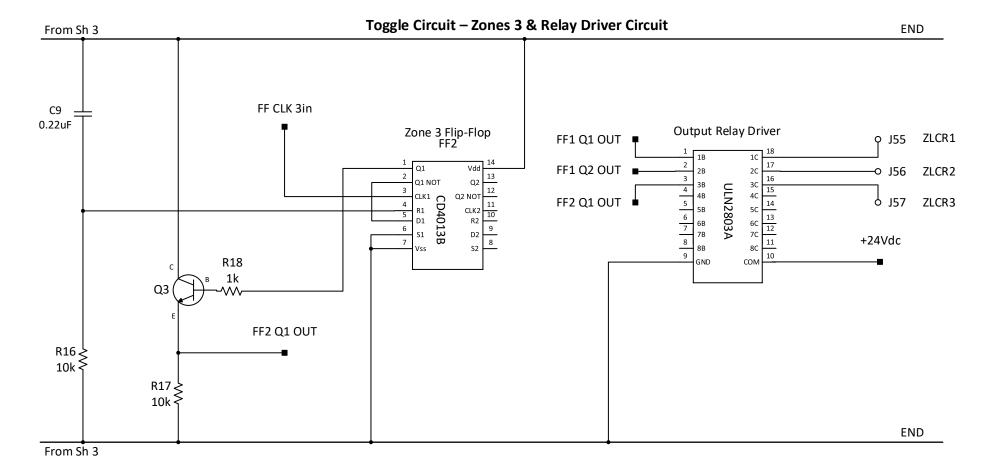


o External wire connector

• Wire junction

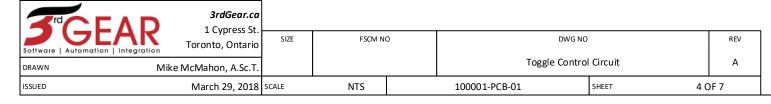
Designation	Digi-Key Part Number	Part Number	Description
C7, C8	495-4985-1-ND	B32529C1224J189	CAP FILM 0.22UF 5% 100VDC RADIAL
R10, R11, R14, R15	RNF14FTD10K0CT-ND	RNF14FTD10K0	RES 10K OHM 1/4W 1% AXIAL
R12, R13	RNF14FTD1K00CT-ND	RNF14FTD1K00	RES 1K OHM 1/4W 1% AXIAL
Q1, Q2	2N3904FS-ND	2N3904FS-ND	TRANS NPN 40V 0.2A TO-92
FF1	296-2033-5-ND	CD4013BE	IC D-TYPE POS TRG DUAL 14DIP
FF1	609-4712-ND	DILB14P-223TLF	CONN IC DIP SOCKET 14POS TIN

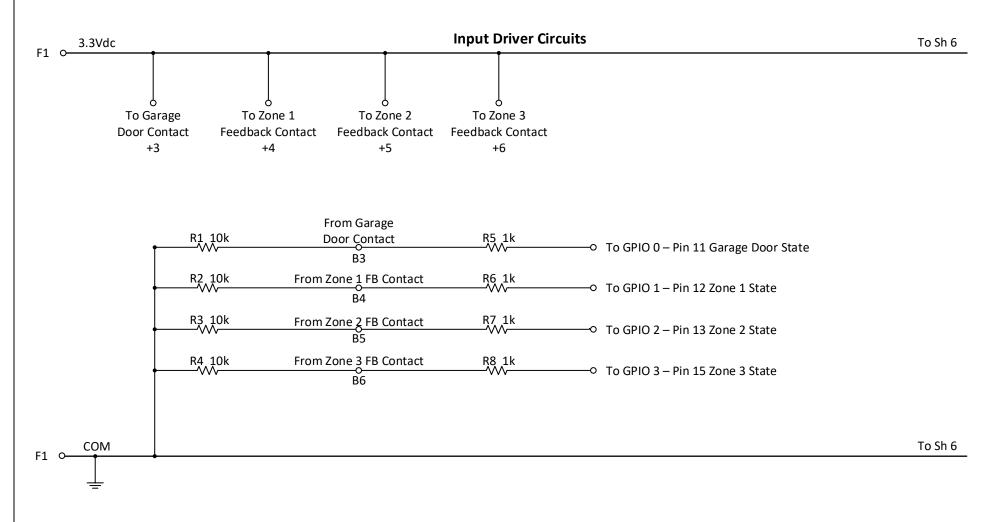
Toronto, Ontario DRAWN Mike McMahon, A.Sc.T. ISSUED March 29, 2018 SCALE NTS DWG NO Toggle Control Circuit A 100001-PCB-01 SHEET 3 OF 7	3rdGear.ca						
IVIKE MICHATOTI, A.Sc. 1.	Toronto Ontario	SIZE	FSCM N	0	DWG NO		REV
ISSUED March 29, 2018 SCALE NTS 100001-PCB-01 SHEET 3 OF 7	DRAWN Mike McMahon, A.Sc.T.				Toggle Control	Circuit	Α
	ISSUED March 29, 2018	SCALE	NTS		100001-PCB-01	SHEET 3	OF 7



Designation	Digi-Key Part Number	Part Number	Description
C9	495-4985-1-ND	B32529C1224J189	CAP FILM 0.22UF 5% 100VDC RADIAL
R16, R17	RNF14FTD10K0CT-ND	RNF14FTD10K0	RES 10K OHM 1/4W 1% AXIAL
R18	RNF14FTD1K00CT-ND	RNF14FTD1K00	RES 1K OHM 1/4W 1% AXIAL
Q3	2N3904FS-ND	2N3904BU	TRANS NPN 40V 0.2A TO-92
FF2	296-2033-5-ND	CD4013BE	IC D-TYPE POS TRG DUAL 14DIP
FF2	609-4712-ND	DILB14P-223TLF	CONN IC DIP SOCKET 14POS TIN
Darl. IC	497-2356-5-ND	ULN2803A	TRANS 8NPN DARL 50V 0.5A 18DIP
Darl. IC	n/a	n/a	CONN IC DIP SOCKET 18POS TIN
ZLCR1 - 3	277-1276-ND	1725685	CONN TERM BLOCK 2.54MM 5POS

- Onboard wire connection
- External wire connector
- Wire junction

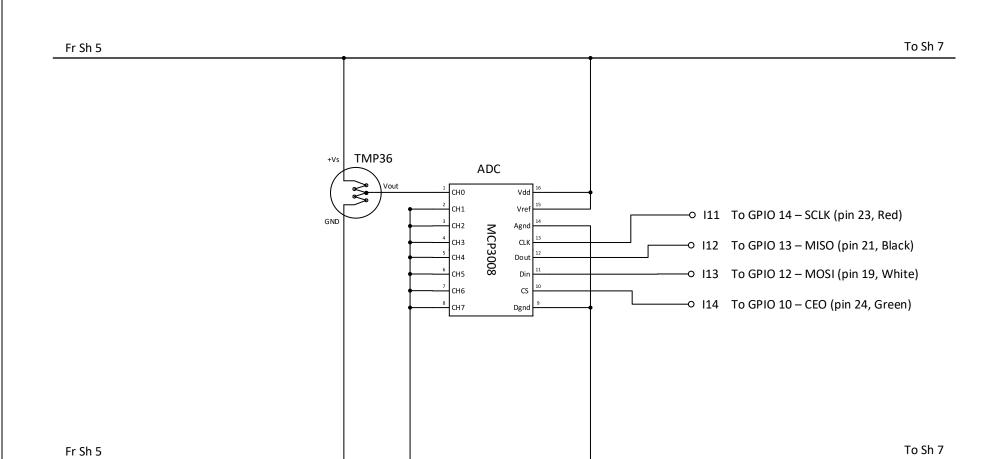




- Onboard wire connection
- External wire connector
- Wire junction

Designation			Description		
R1 - R4	n/a	4606X-1-103LF-ND	10K OHM 6-Pin Bussed Resistor		
R5, R6, R7, R8	RNF14FTD1K00CT-ND	RNF14FTD1K00	RES 1K OHM 1/4W 1% AXIAL		
n/a	n/a	n/a	CONN TERM BLOCK 2.54MM 4POS		

1	3rdGear.ca 1 Cypress St. Toronto, Ontario							
Sc			SIZE FSCM NO		DWG NO		REV	
DF	AWN Mike McMahon, A.Sc.T.				I/O Driver	Circuits		Α
ISS	March 29, 2018	SCALE	NTS		100001-PCB-02	SHEET	5 ()F 7

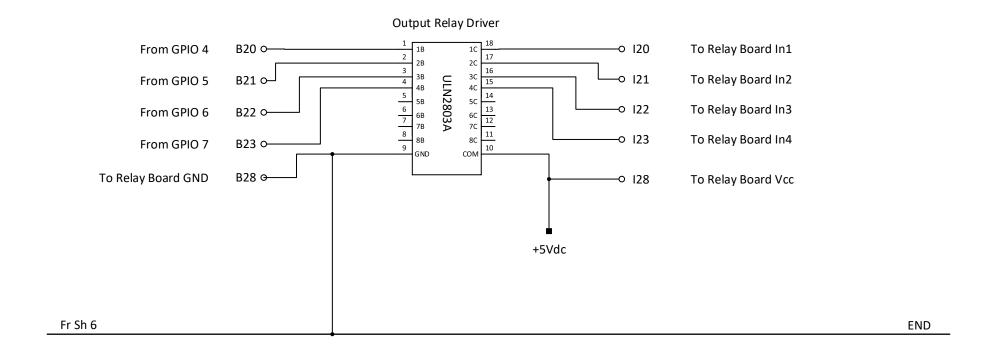


Designation	Digi-Key Part Number	Part Number	Description
C1, C2	399-14088-ND	C350C104F1G5TA	CAP CER 0.1UF 1% 100V COG RADIAL
ADC	MCP3008-I/P-ND	MCP3008-I/P	IC ADC 10BIT 2.7V 8CH SPI 16DIP
ADC	609-4712-ND	DILB14P-223TLF	CONN IC DIP SOCKET 14POS TIN
	277-1277-ND	1725698	CONN TERM BLOCK 2.54MM 6POS
	n/a	TMP36	Low Voltage Temperature Sensor

- Onboard wire connection
- o External wire connector
- Wire junction

Trd E A	3rdGear.ca						
Software Automation Integ	1 Cypress St. Toronto, Ontario		SIZE FSCM NO		O DWG NO		
DRAWN	Mike McMahon, A.Sc.T.				I/O Driver Ci	rcuits	А
ISSUED	March 29, 2018	SCALE	NTS		100001-PCB-02	SHEET 6	OF 7

Fr Sh 6



- Onboard wire connection
- o External wire connector
- Wire junction

Designation	Digi-Key Part Number	Part Number	Description		
Darl. IC	497-2356-5-ND	ULN2803A	TRANS 8NPN DARL 50V 0.5A 18DIP		
Darl. IC	n/a	n/a	CONN IC DIP SOCKET 18POS TIN		
	n/a	n/a	CONN TERM BLOCK 2.54MM 10POS		

3rdGear.								
Softwar	Software Automation Integration Toronto, Ontario		SIZE FSCM NO		DWG NO			REV
DRAWN	Mike McMahon, A.Sc.T.				I/O Driver C	rcuits		А
ISSUED	March 29, 2018	SCALE	NTS		100001-PCB-02	SHEET	7 (OF 7