

U\_Power Supply  
Power Supply.SchDoc

REPEAT(U\_IO combined, 1, 8)  
IO combined.SchDoc

Repeat(IN)

IN[1..8]

IN

IN1

IN2

IN3

IN4

IN5

IN6

IN7

IN8

U\_UNO Mega IO  
UNO Mega IO.SchDoc

IN1

IN2

IN3

IN4

IN5

IN6

IN7

IN8

Repeat(O)

O[1..8]

O

O1

O2

O3

O4

O5

O6

O7

O8

O1

O2

O3

O4

O5

O6

O7

O8

Title **MiniPLC Team 1**  
8 channel Input and Output

Size

Number

Revision 1

Date: 5/12/2024

Sheet of

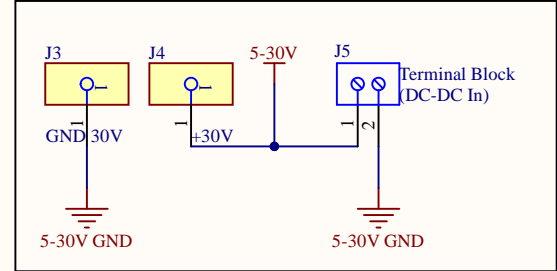
File: C:\Users\...\16 Channels.SchDoc

Drawn By: Prince Sakariya

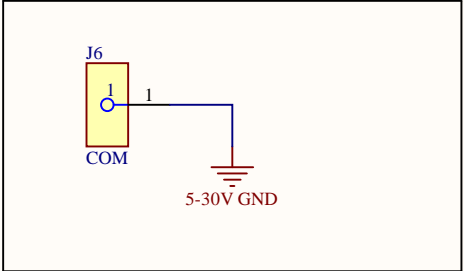
The diagram illustrates the Input module circuit. It features a 5-30V power source connected to a switch (SW1) and a banana plug (J1). The switch controls the input to a PC817C optocoupler (Q1). The output of the optocoupler is connected to an LED (D1) labeled 'Input Led'. A 470 Ohm resistor (R1) is connected between the LED and the Arduino In pin. A 2k Ohm pull-down resistor (R2) is connected between the input and ground. The Arduino In pin is also connected to the IN pin of a 16 Channels [2B] module.

Title <b>MiniPLC Team 1</b> Input and Output module		
Size A	Number	Revision <b>1</b>
Date: 5/12/2024	Sheet of	
File: C:\Users\...IO combined.SchDoc	Drawn By: <b>Prince Sakariva</b>	

External Power Supply (5-30V)

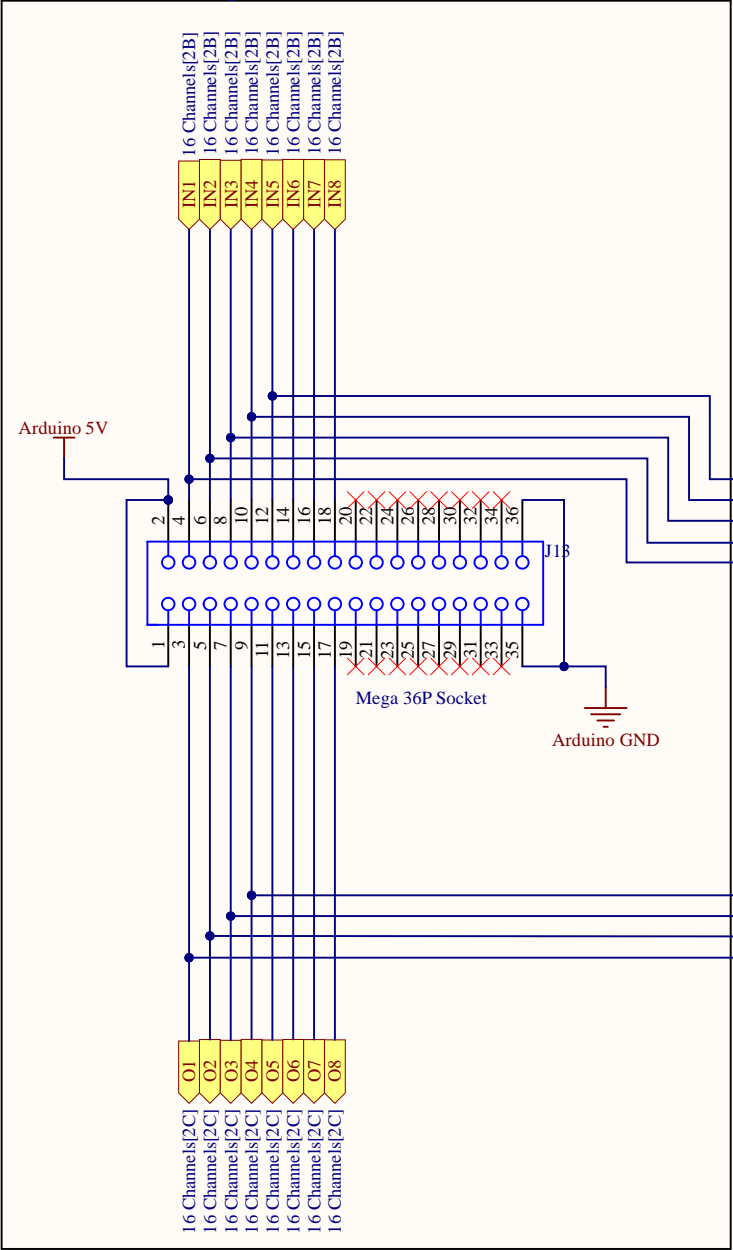


Banana Plug COM port

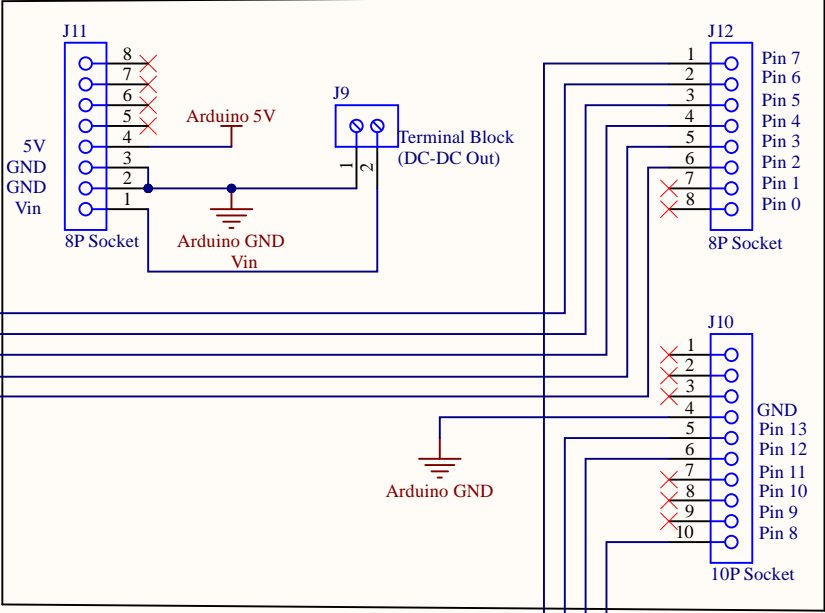


Title <b>MiniPLC Team 1</b> Power Supply			
Size A	Number		Revision <b>1</b>
Date:	5/12/2024		Sheet of
File:	C:\Users\...\Power Supply.SchDoc		Drawn By: <b>Prince Sakariya</b>

Arduino Mega



Arduino Uno



Title <b>MiniPLC Team 1</b>			
Arduino Uno and Mega IO integration			
Size	Number		Revision 1
A			
Date:	5/12/2024		Sheet of
File:	C:\Users\...\UNO Mega IO.SchDoc		Drawn By: Prince Sakariya