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Intelligent center pivot

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Intelligent Center Pivot Irrigation Technology

Why do we need it?

Irrigation systems are used to apply water to crops. Due to variations in topography and the required amounts of water, a significant amount of water and energy can be wasted.

What can be done?

Intelligent irrigation systems have been developed to solve this very problem. These systems have been designed to automatically adjust the application rates to meet the requirements of individual management zones within a field.

Intelligent Center Pivot:

A sensor-based variable rate pivot that automatically adjusts water application rates in each management zone



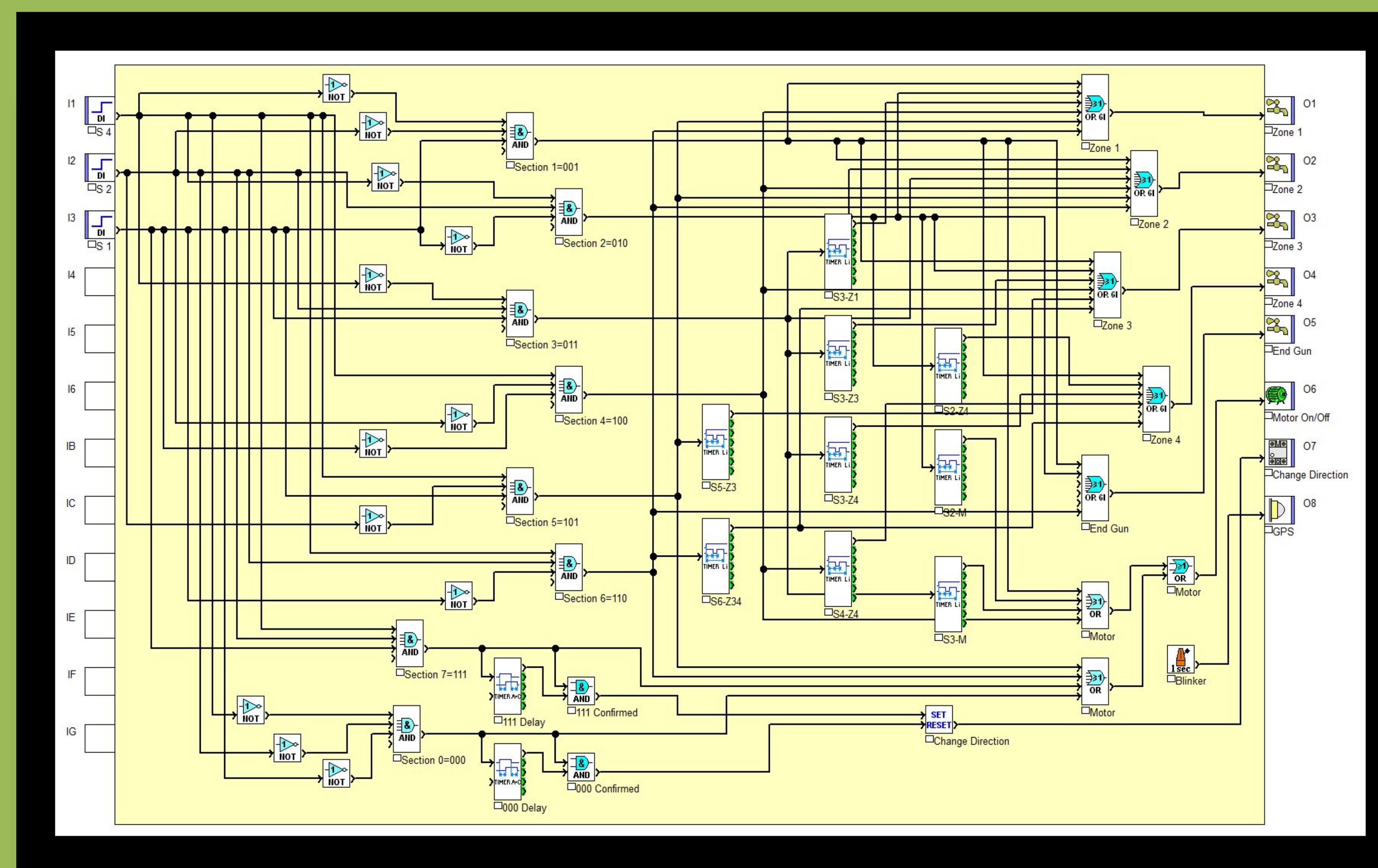
Table Top Model:

A model has been created to demonstrate the use of this intelligent irrigation system.

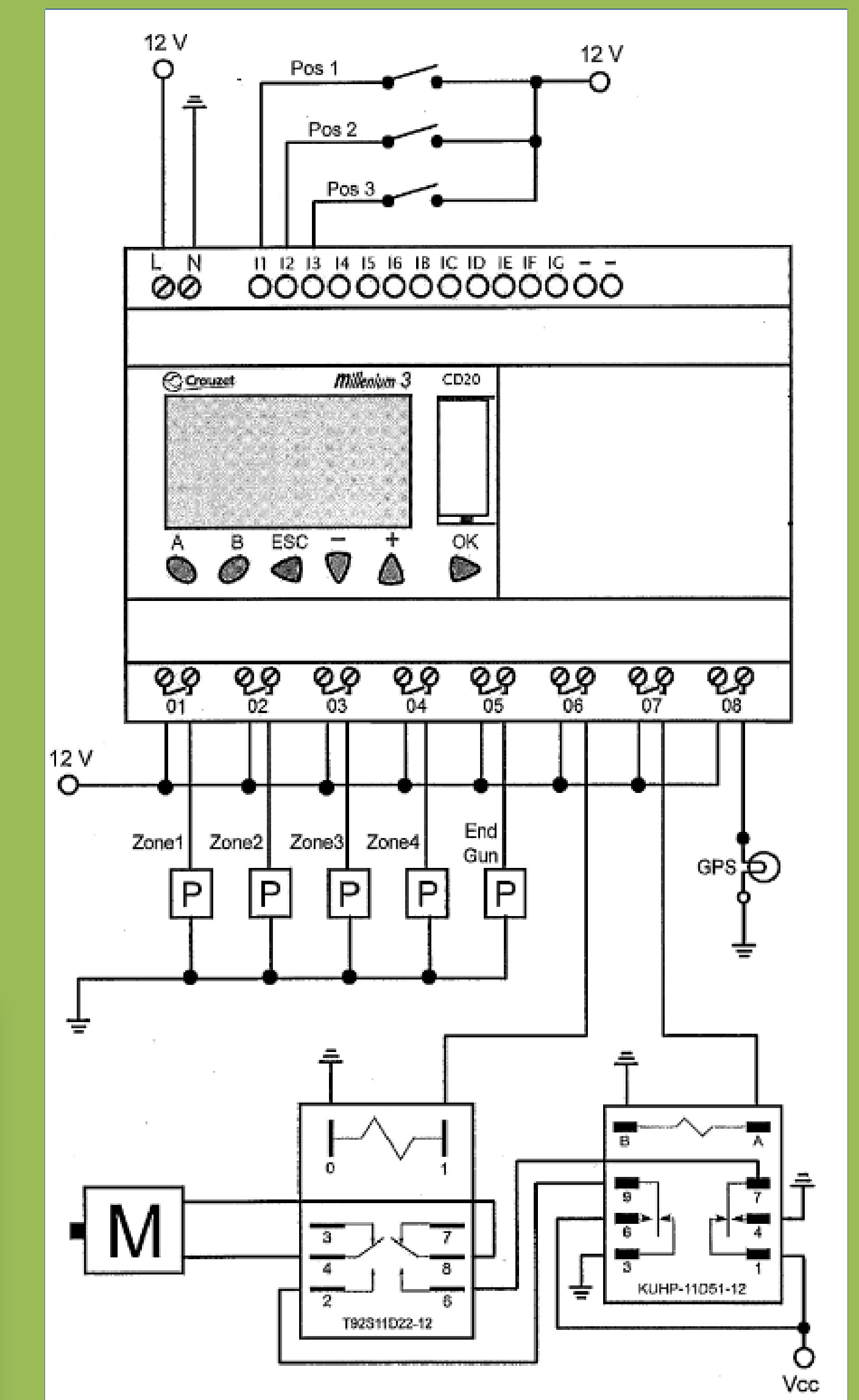
Management Zone Strategy:

	Motion	Zone 1	Zone 2	Zone 3	Zone 4	End Gun
Section 0=000	CW	Stop	Stop	Stop	Stop	Stop
Section 1=001	Full	Full	Full	Full	Full	Full
Section 2=010	50%	Full	Full	Full	50%	Full
Section 3=011	50%	50%	Full	50%	50%	Stop
Section 4=100	Full	Full	Full	Full	50%	Stop
Section 5=101	Full	Full	Full	50%	Stop	Stop
Section 6=110	Full	Full	Full	50%	50%	Full
Section 7=111	CCW	Stop	Stop	Stop	Stop	Stop

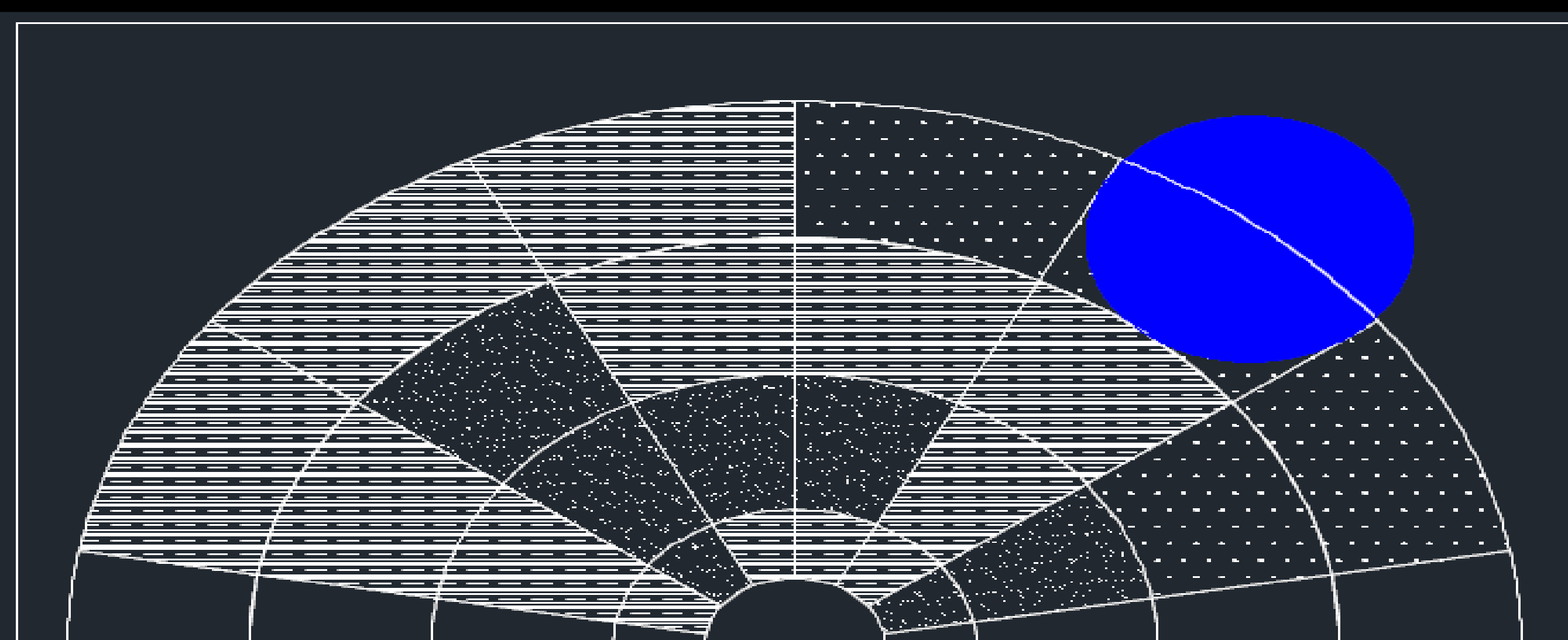
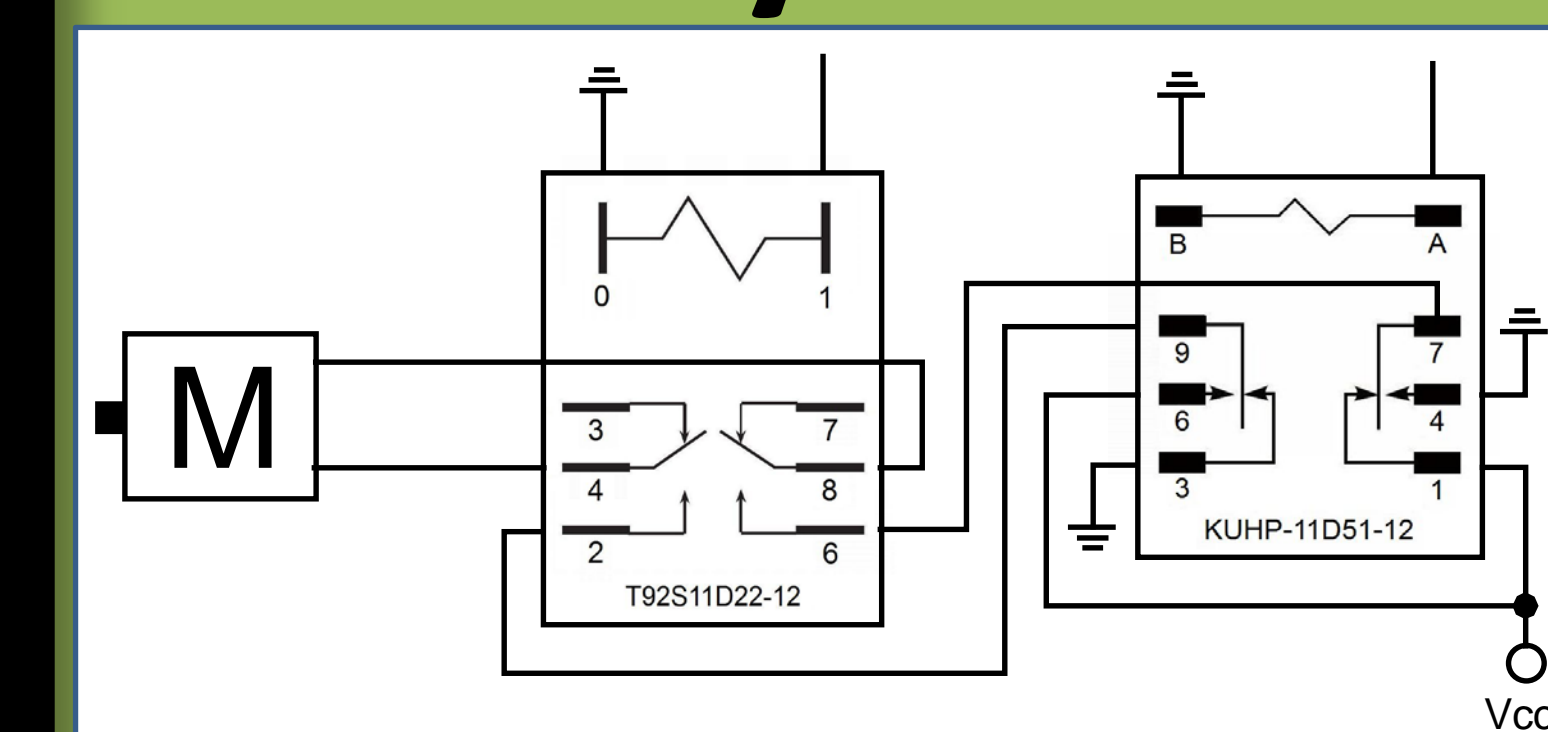
PLC Program:



PLC Wiring Diagram:



Polarity Control:



Symbol	Soil Condition/Type
	Sand
	Clay
	Boggy
	Pond