**PLACA PRINCIPAL**

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| Entradas:   1. ADC\_IN 2. PIN\_UP 3. PIN\_DOWN 4. PIN\_PROG 5. PIN\_VALIDADOR 6. PIN\_DATAIN (ISD) | Salidas:   1. PIN\_VALVULAI 2. PIN\_VALVULAE 3. PGD 4. MCLR 5. PIN\_SPK/PGC 6. PIN\_DATAOUT (ISD) 7. PIN\_CLOCK (ISD) 8. PIN\_SS (ISD) 9. PIN\_SCL (EEPROM) 10. PIN\_SDA (EEPROM) 11. PIN\_HABVAL 12. LCD\_DB7 13. LCD\_DB6 14. LCD\_DB5 15. LCD\_DB4 16. LCD\_RS 17. LCD\_E 18. DATA (SHIFT REG) 19. CLOCK (SHIFT REG) |

ASIGNACIÓN DE PINES EN PIC

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| CONTROL DE SIETE SEGMENTOS |

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| CONTROL DE VÁLVULAS | |
| SENSOR DE PRESIÓN | EEPROM |

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| PULSADORES |

REGULADOR

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| DISPLAY LCD |

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| ETAPA DE AUDIO |

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| CONECTORES |

**Lista de materiales**

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| SENSOR DE PRESIÓN MPX5700DP  CI1, CI2: 74HC164  CI3, CI4: ULN2803  CI5, CI6: 4N25  CI7: 24LC04B  CI8: PIC18F26K20  CI9: 7805  C1: 470 pF  C2: 1 uF / 16V  C3: 330 Nf  C5: 100 nF  C6, C7, C8: 10 nF  R1 a R5, R7 a R13, R15 a R16 : 560 Ω / ½ W (METALFILM)  R6, R14: 820 Ω / ½ W (METALFILM) | R17, R19: 560 Ω / 1/8 W  R18, R20: 2K2 / 1/4 W  R21, R22: 10K / 1/8 W  R23, R24, R25, R26: 10K / 1/8 W  R27: 18 Ω / ½ W (METALFILM)  R28: 4K7 / 1/8 W  R29: 2K2 / 1/8 W  Q1, Q2: TIP112  Q3: BC548  D1, D2: 1N4004  D3, D4: 1N4148  1 BUZZER  2 BORNERAS DE 2 PINES |
| **Etapa de audio** |  |
| C10, C12, C16, C20: 100 nF  C11, C13: 10uF / 16V  C14, C17: 4.7 uF / 16V  C15: 47 nF (usar cerámico)  C18: 470 uF / 16V  C19: 330 uF / 16V | C20: 104  R30, R31: 100KΩ / 1/8W  R32: 3.3Ω / 1/2W (METALFILM)  CI9: ISD1760  CI10: LM380 (de 8 pines) |