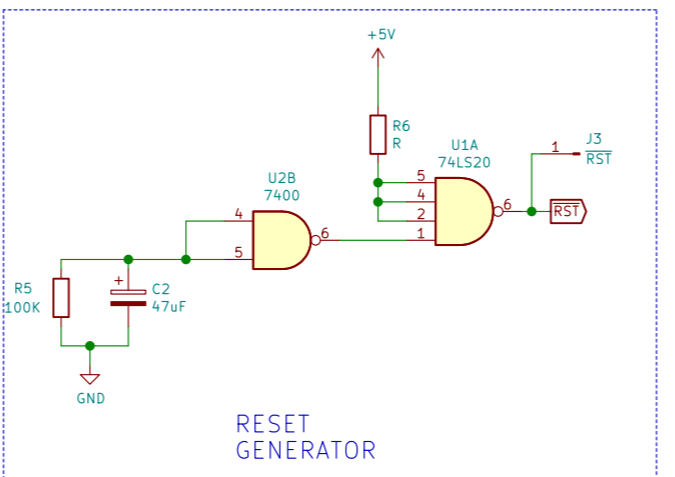


J1 32-way-pcb-edge-Educ-8-connectors

| | | | |
|----|-----|----|----|
| 1 | GND | 1 | 1 |
| 2 | +5V | 2 | 2 |
| 3 | + | 3 | 3 |
| 4 | + | 4 | 4 |
| 5 | + | 5 | 5 |
| 6 | + | 6 | 6 |
| 7 | + | 7 | 7 |
| 8 | + | 8 | 8 |
| 9 | + | 9 | 9 |
| 10 | + | 10 | 10 |
| 11 | + | 11 | 11 |
| 12 | + | 12 | 12 |
| 13 | + | 13 | 13 |
| 14 | + | 14 | 14 |
| 15 | + | 15 | 15 |
| 16 | + | 16 | 16 |
| 17 | + | 17 | 17 |
| 18 | + | 18 | 18 |
| 19 | + | 19 | 19 |
| 20 | + | 20 | 20 |
| 21 | + | 21 | 21 |
| 22 | + | 22 | 22 |
| 23 | + | 23 | 23 |
| 24 | + | 24 | 24 |
| 25 | + | 25 | 25 |
| 26 | + | 26 | 26 |
| 27 | + | 27 | 27 |
| 28 | + | 28 | 28 |
| 29 | + | 29 | 29 |
| 30 | + | 30 | 30 |
| 31 | + | 31 | 31 |
| 32 | + | 32 | 32 |
| 33 | + | 33 | 33 |
| 34 | + | 34 | 34 |



| RefDes | Part No | Substitute | Description |
|--------|---------|------------|---------------------------------------|
| U1 | 74LS20 | | Dual 4 input NAND |
| U2 | 7400 | | Quad 2 input NAND |
| U3 | 7404 | | Hex Inverter |
| U4 | 7410 | | Triple 3 input NAND |
| U5 | 9316 | 74161 | 4Bit binary counter with ripple carry |
| U6 | 7413 | | Dual 4 input NAND open collector |
| U7 | 7400 | | " |
| U8 | 7400 | | " |
| U9 | 7400 | | " |
| U10 | 7400 | | " |
| U11 | 9311 | 74154 | 1 of 16 binary decoder |
| U12 | 7473 | | Dual J/K flip flow with clear |
| U13 | 7400 | | " |
| U14 | 7473 | | " |
| U15 | 7404 | | " |
| U16 | 7400 | | " |
| U17 | 7404 | | " |
| U18 | 7400 | | " |
| U19 | 7410 | | " |
| U20 | 7404 | | " |
| U21 | 7400 | | " |
| Q1 | BC548 | BC108 | NPN signal transistor |

