### Components for Interface Board

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1 | D1 | 1N4148 Diode  
*Match diode stripe with stripe on board* |
| 2 | R1, R2 | 330Ω Resistor  
Orange-Orange-Brown |
| 1 | R3 | 10K Ω Resistor  
Brown-Black-Orange |
| 1 | C1 | 0.1 μF Capacitor |
| 1 | C2 | 220μF Electrolytic Capacitor  
*Longer lead is +* |
| 1 | LED POWER | Bi-Color  
*Shorter lead is on flat side* |
| 1 | R4 | Speed Adjust  
100K Ω Potentiometer  
*Adjusting screw matches screw symbol on board* |
| 1 | S1 | ON/OFF SPST Switch  
*Pin spacing allows only two ways to place. Either way is OK.* |
| 4 | S0, S1, P1, P6 | 4-Pin Male Connector  
Plastic lip matches with stripe on board |
| 1 | J7 | 3-Pin Male Header*  
Bump Bot Dis En |
| 2 | J4 | 3-Pin Male Header*  
ISP |
| 1 | J6 | 3-Pin Female Header. (7.2V 5V GND)  
Don’t use the long female strip |
| 1 | J5 | 10-Pin Female Header*  
Remote Controller Port |
| 1 | U1 | 28-Pin Dip Socket for ATMEGA_48 |
| 2 | U2, U3 | 7805  
5 Volt Regulator |
| 2 | J1 J3 | 20-Pin Male Ribbon Cable Connector**  
*See note below* |
| 1 | Jumper | *Place on Bump Bot Male pins when board is completed.*  
*Do Not Solder* |
| 1 | ATMEGA 48 | Place in socket when board is completed.  
*Do Not Solder* |

---

*Dashed outlines mean component orientation is critical  
*Cut desired number of units from long strip  
**The single slot in the housing faces the center of the board*