How to select a switch

Several questions have come up about hos to determine the type of switch one will need for a particular application. While no single method is going to work in every possible situation, there are two big questions you should consider to get you started:

1. In how many positions will the switch be expected to have a current flowing through it? This determines the number of throws the switch will need. A simple on-off switch will be “active” in only one position (On), so it will only need a single throw, while the switches in the two way switch example can allow a current to flow through them in either position (both Up and Down) so a double throw switch will be needed. A switch that controls a fan to be Off, High, Medium, Low will need 3 Throws (the off position does not count as a throw) and be of the Off-On-On-On type.
2. How many “inputs” will be coming to the switch? This determines how many poles the switch will need. Again, a simple on-off switch will have only one input, so only one pole will be needed. The left hand switch of a two way switch will have only the high voltage wire as an input, so it only needs one pole. The right had side can be looked at as having the light bulb as the “input” to be switched between two possible states. So both switches need to be Single Pole, Double Throw (SPDT) switches.

There can be variations on this theme, but they all come down to a similar result.