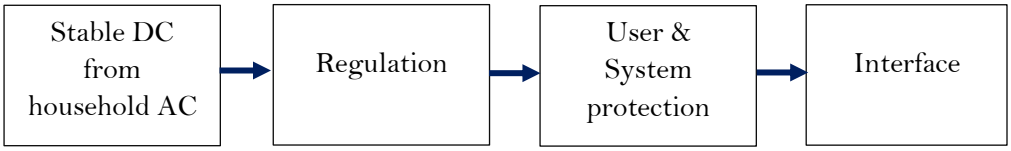
We recognized 4 main requirements to complete the Linear Power Supply.

1. Stable DC from household AC
2. Regulation
3. User and System protection
4. Interface




**Stable DC from household AC and Regulation**

In these stages our only goal is to accomplish the  primary voltage and current needs for implement the power supply. Even though the required output voltage from the LSP been 10V, at this stage we should achieve at least 11.8V s DC voltage which should remain stable up to 10A of current.

After a literature review and many brainstorming sessions, we came up with multiple solutions (4). Following 2 are the most interested circuits, we are expecting to use in the LPS.

**User & System protection**

In this stage we came up with following circuit to **limit the current to 10A** as a precaution , when user try to drive more current than the LPS is rated.

Voltage Limiting / reverse voltage protection?

**Interface**

Output will be a standard pin in hole plug with full control switch.

We decided to use Arduino board with display module to represent the voltage, current, power and other statistics about the usage.

**Timeline**

**Cooling and Enclosure**