

# Sand Filter & Separator Project

Here we demonstrate the design & fabrication system. Sand is used in construction, manufacturing and many industries. Sand needs to be filtered and separated from unneeded particles, stones and other large particles before it is put to use. Our system puts forward a fully automated sand filtering and separator system that automatically filters sand poured on it. Here we use a motorized shaft that is mounted horizontally using mounts. The shaft is connected to a filter frame with mesh below and enclosing frame on the sides. We now have a rod connected from the shaft to the filter frame in a way such as to achieve the best horizontal motion. Also we have a frame to hold the filter frame in place while ensuring proper horizontal motion at the same time. On switching on the motor using our motor controller circuit, the system allows to operate the motor. This allows us to operate the sand filter motion for appropriate sand filtering needs.

## **Components :**

- Shaft
- Motor
- Mounts
- Mesh
- Connecting Rod
- Supporting Frames

## **Advantages :**

- Automatic Filtering
- Fast Filtering
- Easy To Dispose off Unneeded Objects

**Block Diagram:**

