Introduction: In farms where crops are grown in a linear (rows and column) pattern (as shown in the figure below). Different crops have different widths and in the space remaining between two crops, rows/columns are occupied by weeds. Which needs to be removed from time to time so that it does not harm crops. Specifically, for the crops which are short in length (vegetable crops, eg. brinjal) so that the tractor can be used to plow and also for removing time to time.
**Problem Faced:** If we have different crops in the land area, every time position of the cultivator blade needs to be changed by loosening the nut and bolts, remove it from one slot and fix it in another slot and tight it.
As we can in the figure the cultivator structure is very massive and robust. It is a problem to change every time blade support and takes effort and time also it is not possible to fix the blade support at every position since it has a limited number of slots at a specific position.

**Ideas and Design:**

1. The first idea was taken from Trowel (Khurpi).

All blades will be connected by a single nut bolt mechanism, for changing the position of one the blades just lose the nut, change the position (rotate it around the connection) and tight it again.
The limitation of this design is that while rotating the blade support the orientation of the blade will also change which should be straight every time. Also, there will be strength problem in bolt nut part connected to tractor or motorcycle.

2.
Here in this design, we have taken the idea from the actual cultivator itself. Here we have just made a modification in positioning the blades. Here we have used a slider mechanism for moving the blade support. Blade support will slide on the main frame which can be loosened and tightened by a bolt and nut in the slider. The main advantage of this design is that we can position the blades support at any position on the main frame.