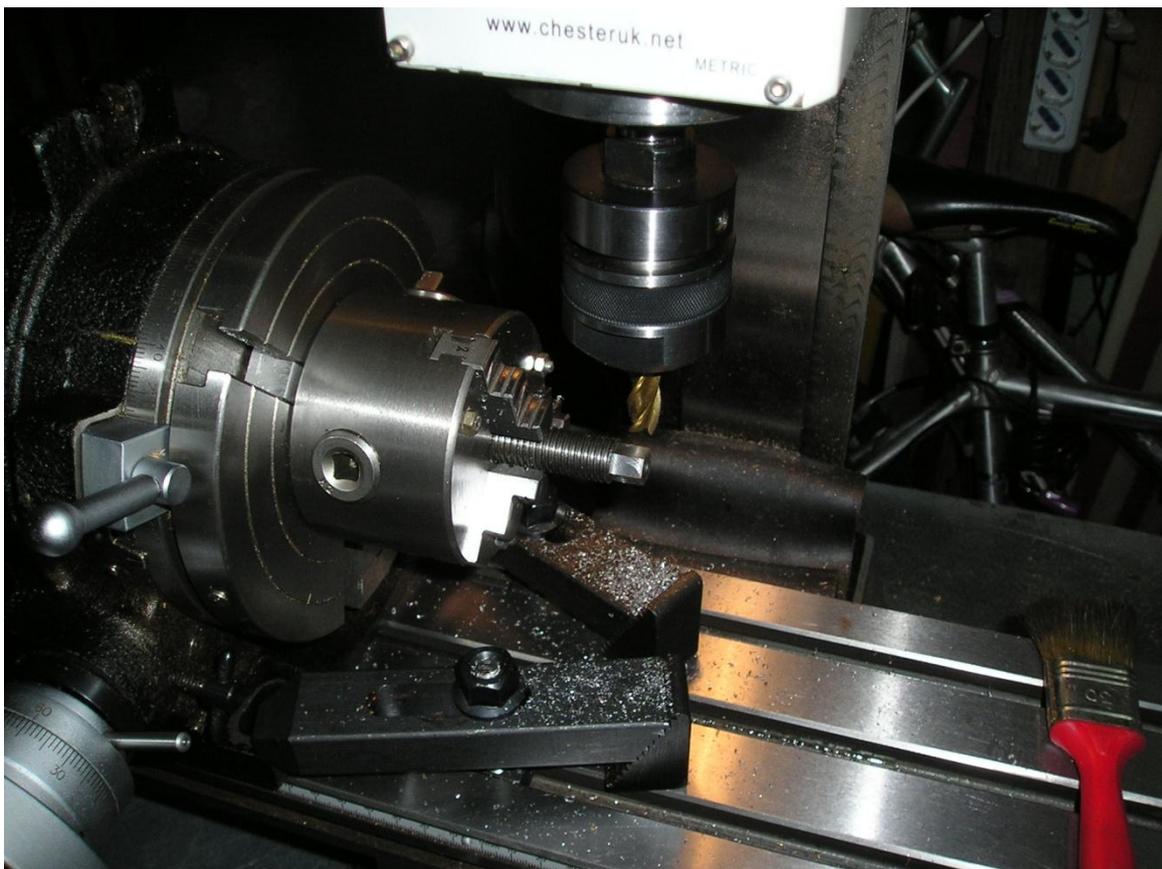


2 AXIS POWER FEED FOR A SMALL MILL

The aim was to provide power feed but still be able to use the manual feed when required.

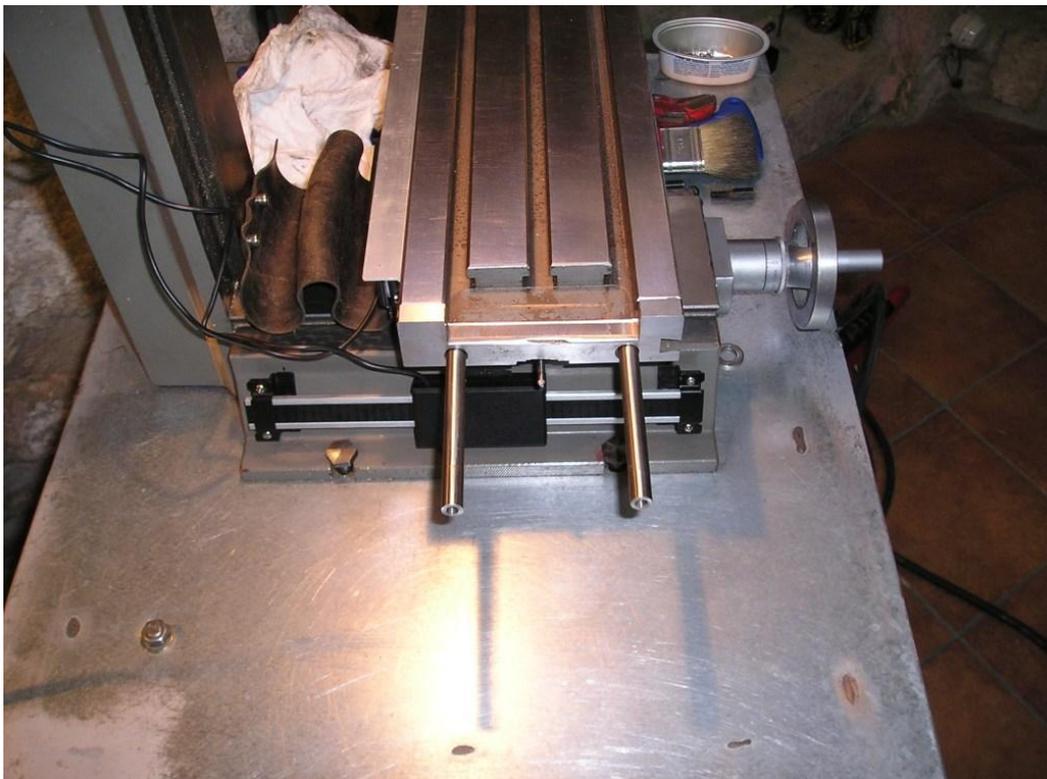
The motors I used are 12v wind screen wiper motors , from old Fiat Panda's (I live in Sicily) Provided by the local garage for nothing,



The feed screws where removed and a hexagon milled on the end to take a old $\frac{1}{2}$ drive socket (chose your own size). For the table feed a short adaptor was made to fit the motor spindle and socket. A length of 4mm silver steel was fitted into the end of the feed screw and runs in a hole in the adaptor this acts as a pilot to keep things in alignment when the feed is disengaged,

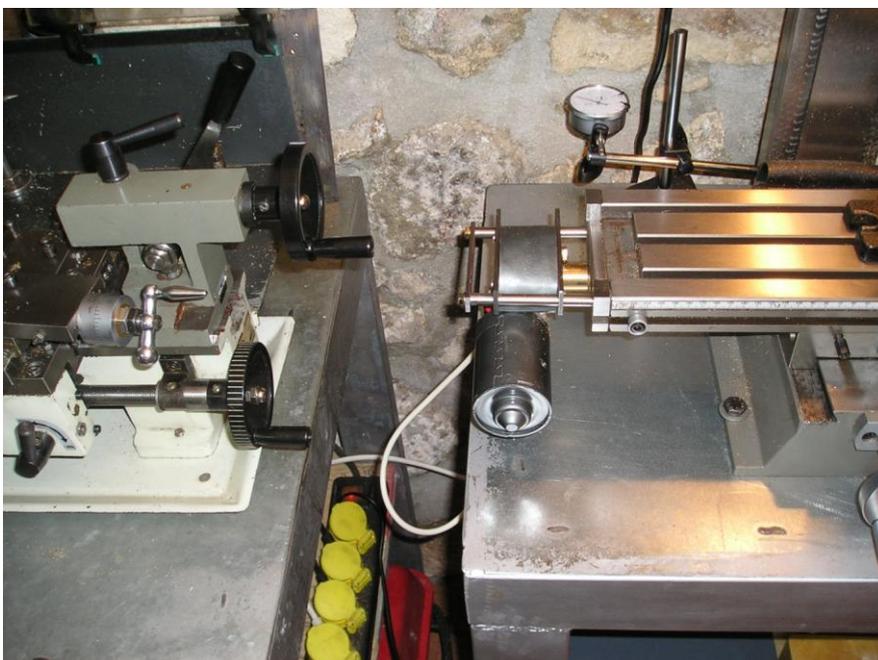
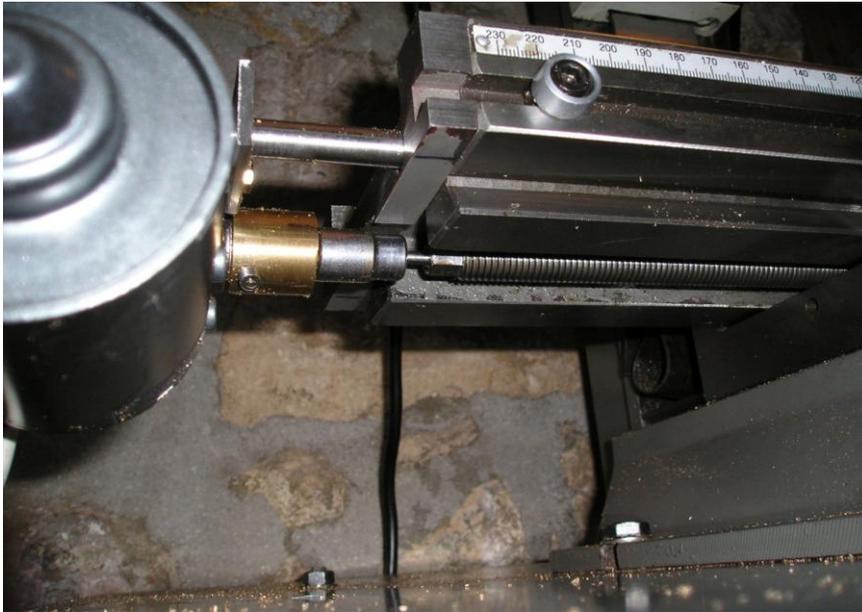


Two lengths of 10mm stainless steel were screwed into the existing holes at the end of the table for the motor to slide on. Guide strips are 25 x 4 mild steel.



The photo shows the drive disengaged .

It has proved not necessary to provide any detents to lock the motor in place.



This view shows the motor engaged . The gap between the motor and table is for swarf clearance.

The vertical drive has a similar adaptor/ drive shaft long enough to place the motor under the bench.

The motor is located on a pin allowing it freedom to align its self, torque is taken by a separate arm that is free to move in the vertical plain.

This assembly is lifted and locked by a leaver at the side of the bench.



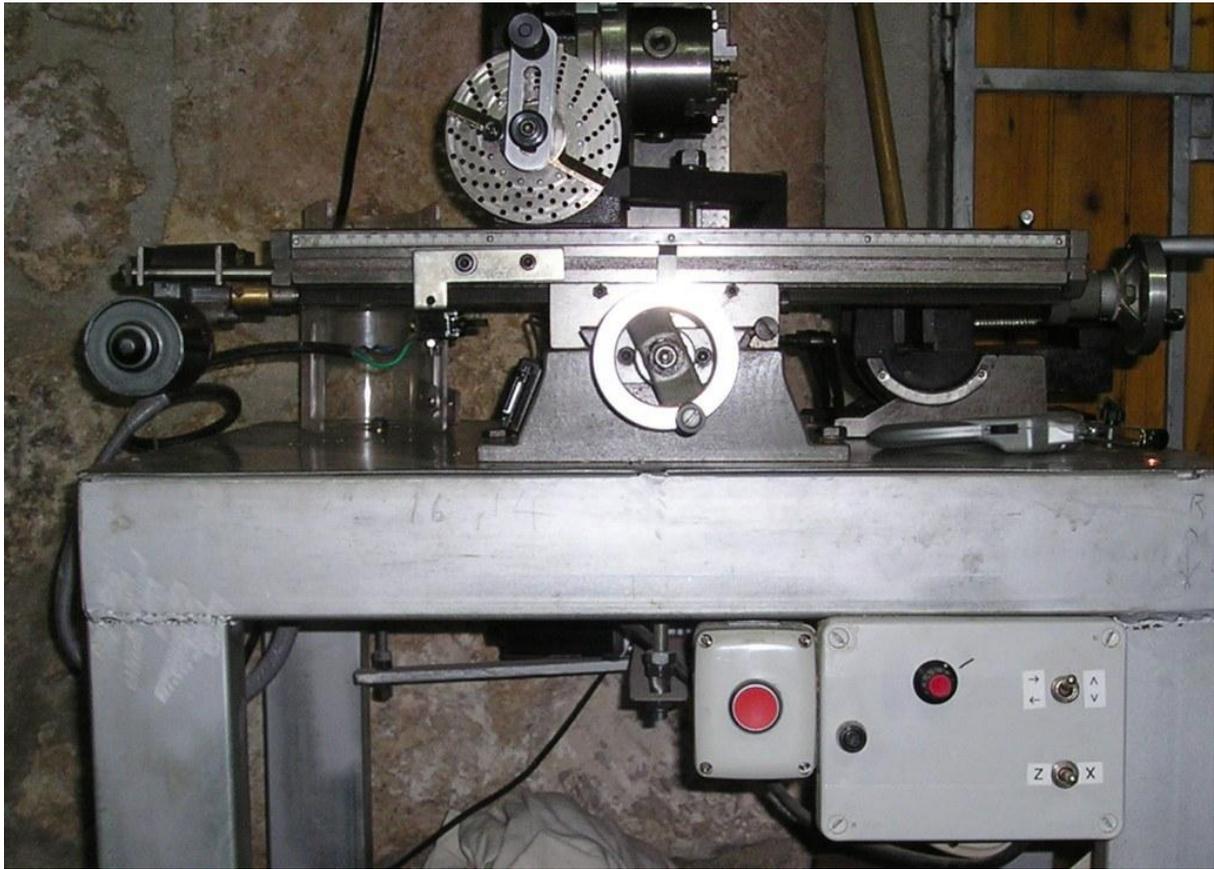
Drive shaft with square for socket and pilot pin, Torque arm with locating pin.



The motor is free to align its self when lifted by the horizontal bar.

The bar is locked by turning the handle. Speed control is by a motor speed controller from WWW.quasarelectronics.com





I have fitted a adjustable limit switch at one end of the table, No 2 to follow!
.The large red button is to override the limit switch when returning the table.