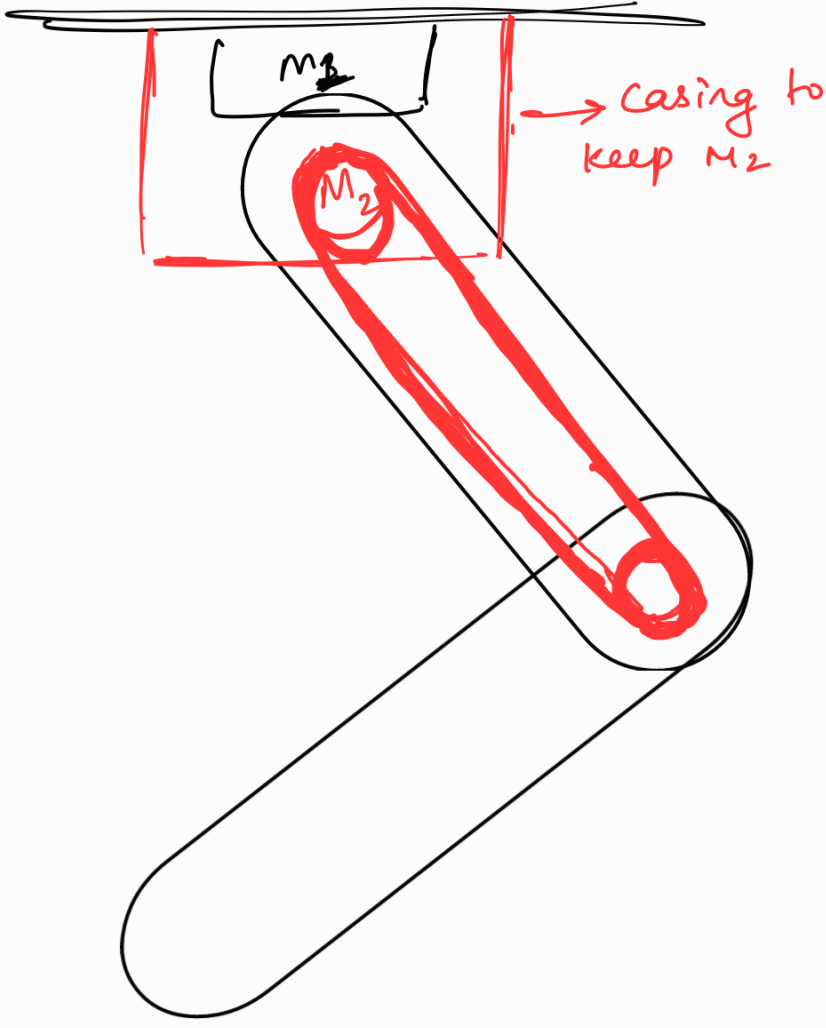
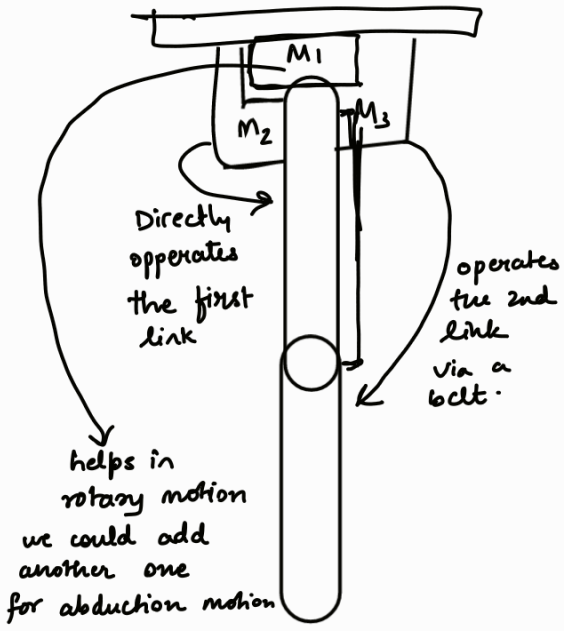


Side view



Front view

Advantages of Belts.

→ simple structure.

→ reduces load on joints & jamming.

→ more efficiency.

We could use Vee Belt.

→ used for Power Transmission mostly.

→ slippage is prevented.

→ They are wedge shaped 

∴ They can't slip.

Ribbed Belt

→ high speed ratio ⟹ ?

→ long life

→ stable

Size of the pulleys.

then the motor can perform less work but the P_2 will give more output.

→ Adv.

1) less energy input.

Dis.

1) accuracy less.

2) Might get bulky at the torso if we keep the P_1 radius bigger.

motor input required will be more than output

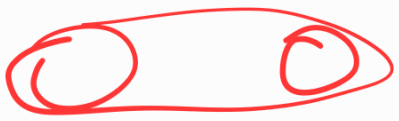
Adv.

1) more accuracy. (better balancing).

Disadv.

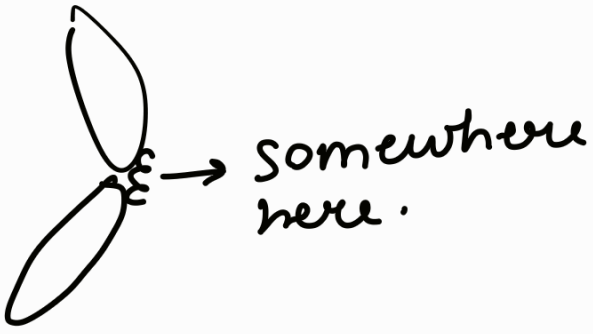
2) knee joint will be bigger.

3) Power zyada lagega.



P_1 & P_2 of same size.

We could also add springs in the 1st & 2nd link.



→ casings to support & major joints made with aluminium/steel.

Al is preferred cause steel may get rusted & is heavier.

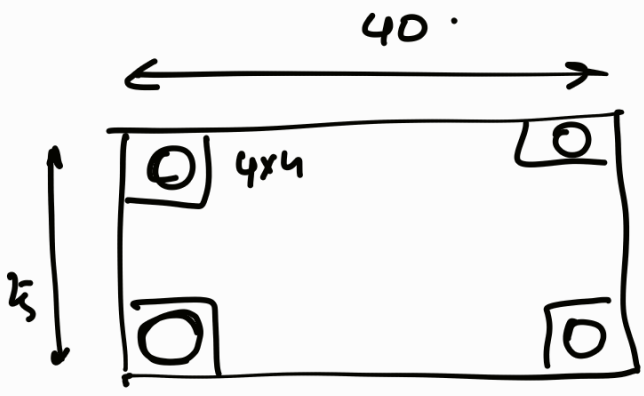
→ legs make with ABS, light & can be easily 3-D printed.

Dimensions:

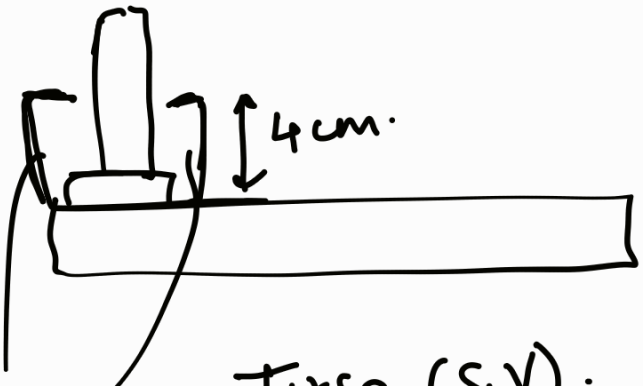
→ if we make a square torso then leg movements mai problem ho sakta hai.

→ 40 x 25 cm

→ legs around



Torso. (F.V).



Torso (S.V).

M_2, M_3 casings.

Assuming Bldc is 3cm dia.