

ReDesign robot base

Morphological analysis

motor type	DC	Servo	Stepper	Brushless
wheels number	3	3	4	2
base shape	triangle	oval	rectangle	circle
material	wood	chipboard	plastic	iron

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- On the first analyse, we choose DC motor with 3 wheels and a triangle base shape made from wood. It seems a good choice; but the triangle might limit the base area, and the wood could be heavy to move, so this option has been excluded.
- The second analyse, we choose Brushless motor with 2 wheels and a circle base shape made from iron. Looks like an acceptable choice; but a circle with 2 wheels could be hard to stay balanced, so this option has been excluded.

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- The third choice is a Stepper motor with 4 wheels and a rectangle base shape made from plastic. It seems a good choice; but when we think again the rectangle is going to be too large and the plastic can't bear the weight, so this option has been excluded.
- The last option which we think that its suitable is a Stepper motor with 3 wheels and an oval base shape made from chipboard. We think it's good because the 3 wheels will support the oval shape in a balance way, and the chipboard strong enough to bear the weight and not that heavy to move.

