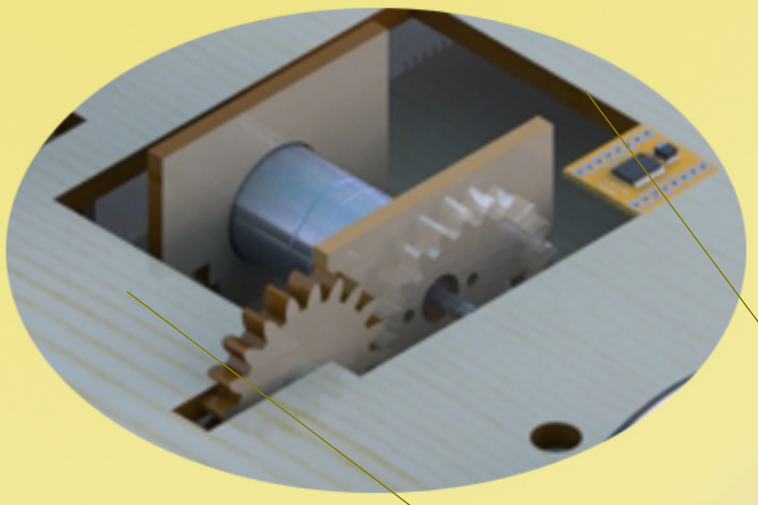
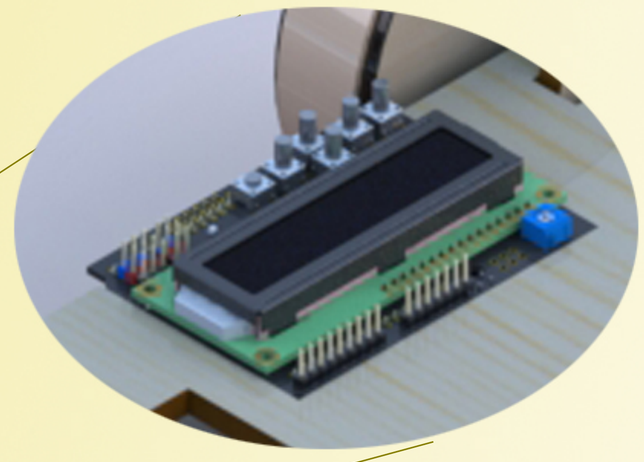
The UnderDog

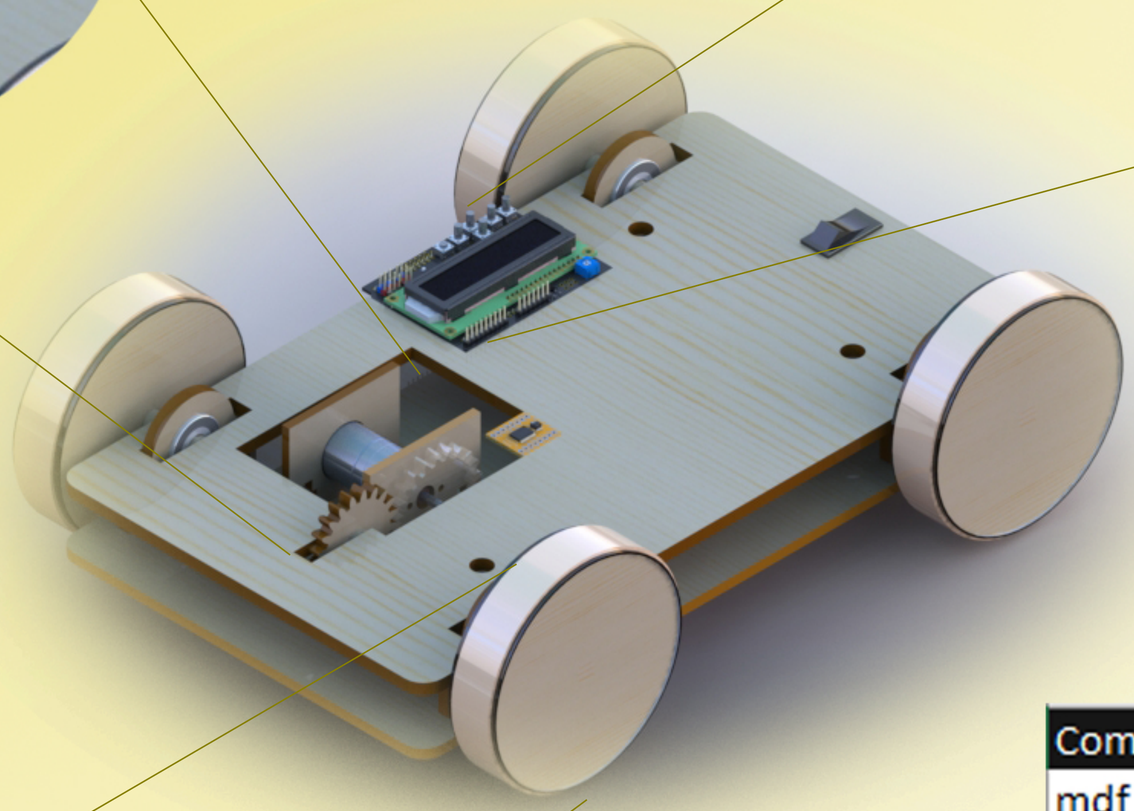
This competition requires teams to build a repeatable 'vehicle', which can be any movable device - wheeled, walking, sliding, jumping, rolling or other. The vehicle runs in a 'lane' with a wall at one end and two circular targets marked on the floor. The device starts at an origin on the target furthest from the wall and must complete two distinct phases for the challenge. First, the vehicle must move from its start point to touch the wall placed at right angles to the lane and then return to stop as close as possible to the start point. Here it must pause for between 5 and 10 seconds, before starting a second phase, heading once again in the direction of the wall. This time, before reaching the wall, the vehicle must find a second target, and stop accurately on its centre. The vehicle is to be started manually, but once it has done so, no interference or outside control is allowed, including the time it pauses for a few seconds between phases one and two.

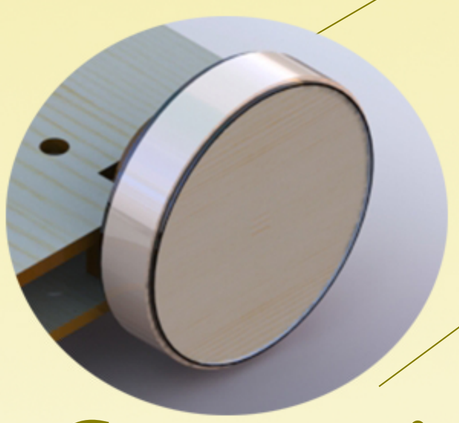
Motion Transmition



Arduino uno Controlled







Composite Wheel

Componets	unit	prize
mdf 6mm		0.8
motor	1	9.3
arduino	1	17
lcd screen	1	9.99
9v battery	1	1.89
mdf 4mm		0
adhesive sand paper		1
1.5v battery	4	2
motor driver		10.64
switch		0
microswitch		0.5
acrylic gear	1	0.05
5 mm rod	16	0.2
10 mm rod	2	0.5
bearings	4	10.4
	Total	64.27

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