Project Name – “Faulty 2.0 -a line follower

Problem Statement- how to make the previous robot look more appealing.

Project Budget- INR 2000

Description-

After getting so much Flack for the previous design looking very faulty according to my seniors, I committed myself on to make a more aesthetic looking design which is more compact more ergonomic and gets the job done more efficiently.

With this I picked up the smallest robot frame I could find with a caster on it, I installed 60 rpm motors and connected it to an L293D motor driver circuit board. That motor driver circuit board was then connected to an Arduino. The Arduino took power from Power Distribution board I had made myself and it was all powered by 12 Volt this time 2.5 ampere hour battery.

This time on the sensor board it had 5 sensors instead of 3 and all oriented in an arrow like formation for more configurable options so that it can accurately judge each and every condition which is required .Usually line thickness in these kinds of events is one inch and if not it's usually one centimetre so I made the design so that it can be programmed for one inch line and a one centimetre line.

Replicating the previous program, I made it into a 5 sensor program using data from all the 5 sensors for different kinds of decisions such as sharp left or sharp right or mild left or mild right based on if the line is sharply turning or if the line is bending towards the certain area and the program became quite refined overtime and this robot won a lot of prices during its years.

Materials Consumed-

1. An acrylic sheet
2. Glue gun and sticks
3. Nut/ Bolts / Washers
4. IR Sensors
5. Ribbon Connectors
6. Arduino Uno
7. L293D Motor Driver Board
8. Custom Made Power Board
9. 12v Volts Lead Acid Battery Pack.
10. Castor Bot Frame
11. 60 RPM Motors