Components to be Procured for MS-101

For the lab experiments on microcomputers and for your project, you will need to procure some components. Considering the lead time for getting these, this list is being put up well in advance.

Every lab group (of 2 students) should have these components –

1. Arduino Uno board with USB B type cable.
   Arduino Nano board (with USB mini B cable) will also do, but Uno is preferred.
   You need not buy "original Arduino" boards – those are expensive.
   "Arduino compatible" boards work well enough.
2. 2 Battery operated motors (60 to 200 RPM).
3. L298N Motor driver card for driving the motors. Each card can drive up to two motors.
4. Wheels for line follower robot (2 or 4 as per design)
5. Lithium ion or Lithium Polymer batteries – 3 cell battery with about 11.2 V output.

These components will be used for labs 4-5, as well as for the project.

Components may be bought

- As hand-me-down components from other students. Make sure these are functional.
- From local shops (hostel stationery shops or one just outside IIT main gate).
- From shops at Lamington Road (now known as Bhadkamkar marg).
- From on-line suppliers such as Robu.in or Xcluma.
  (These are examples – there are many other suppliers as well).

Cost of components can vary a lot from supplier to supplier. These excerpts from some recent orders placed with on-line suppliers should give you an idea of the prices. GST at the rate of 18% will be additional over these prices.

Approx. Component Prices		
Arduino Uno R3 Compatible Board w/o USB cable	Rs	380.00
NANO 3.0 MINI-USB BOARD - w/o USB cable	Rs	320.00
USB Type A Male to Type B Cable	Rs	50.00
USB Type A Male to Mini Type B Cable	Rs	50.00
L298N Motor driver card	Rs	100.00
Battery operated motors (each)	Rs	65.00
Wheels for line follower robot (each)	Rs	60.00
Re-chargeable 3 cell battery (11.2 V nominal output)	Rs	650.00

These prices are *very* approximate and vary a lot with demand and supply. These have been put here just to give you a ball park figure.