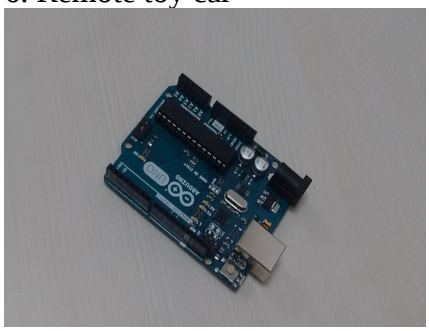
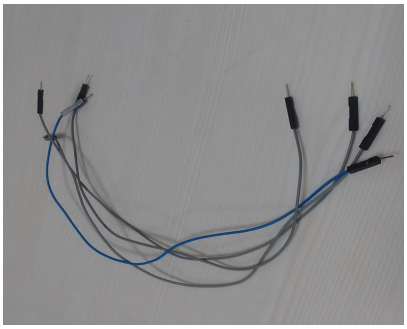
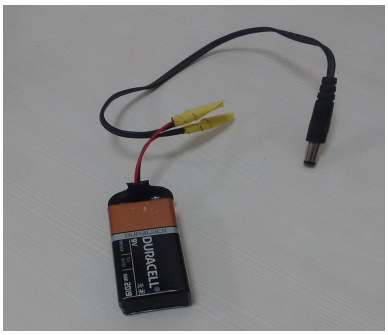
Arduino Controlled Toy Car

Step 1 : Materials required

1. Arduino UNO
2. *Male*/*Male* Jumper Wires (4nos – 10cm each)
3. AWG solid wire (4 nos – 10 cm each)
4. Rubber bands (2nos)
5. 9V battery with connector cable to power arduino
6. Remote toy car

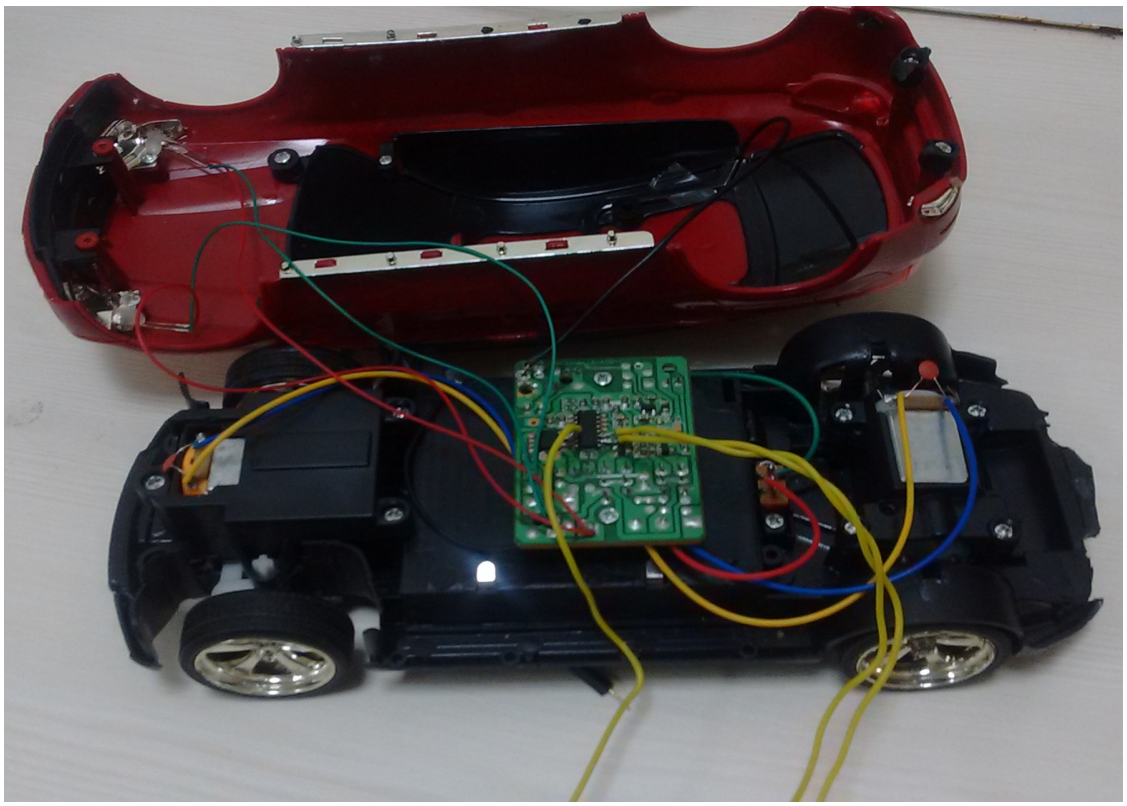




Step 2 : Identify the trigger pins for Forward/Reverse and Left/Right.

Toy car that I have used contains “Super chip SDRX2BDS” IC and the pins behaviour is listed below[2]

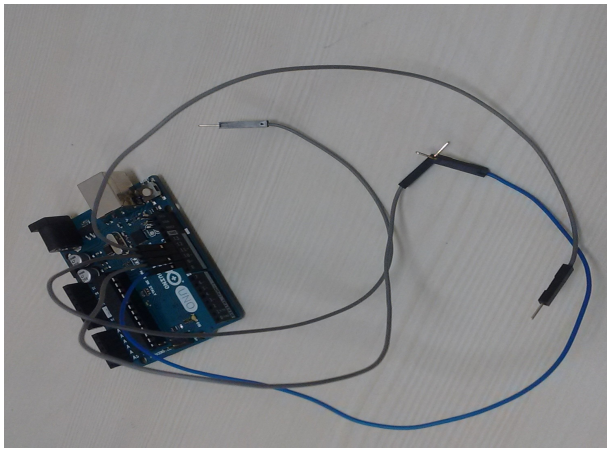
06 = Right Command
07 = Left Command
10 = Reverse Command
11 = Forward Command

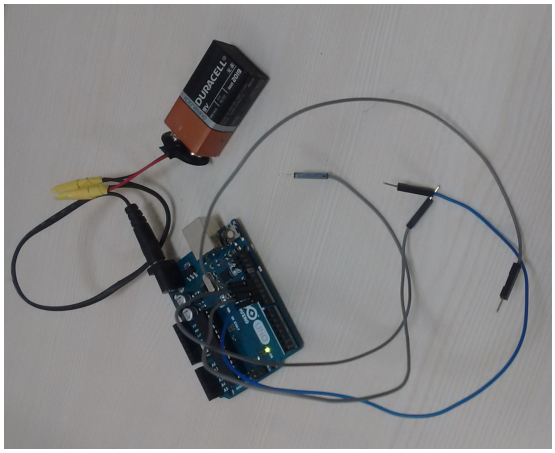
Step 3 : Solder the wires on the identified trigger pins



Step 4 : Prepare Arduino[3]

- Connect Arduino to a laptop using USB type A/B cable.
- Configure the arduino board's pins as forward = 12, reverse = 11, left = 10, right = 9
- Upload the code[1] to arduino using Arduino IDE.
- Connect jumper wires to pins 12,11,10,9
- Connect 9V battery to the arduino



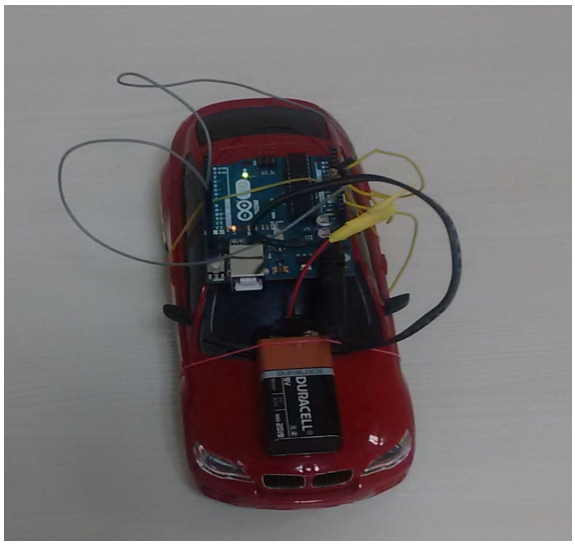


Step 5 : Connect Arduino and Car

Connect the soldered cables on car to jumper wires on arduino as per the PIN configuration:

Behaviour	**Pins on Car**	**Pins on Arduion**
Forward	11	12
Reverse	10	11
Left	7	10
Right	6	9

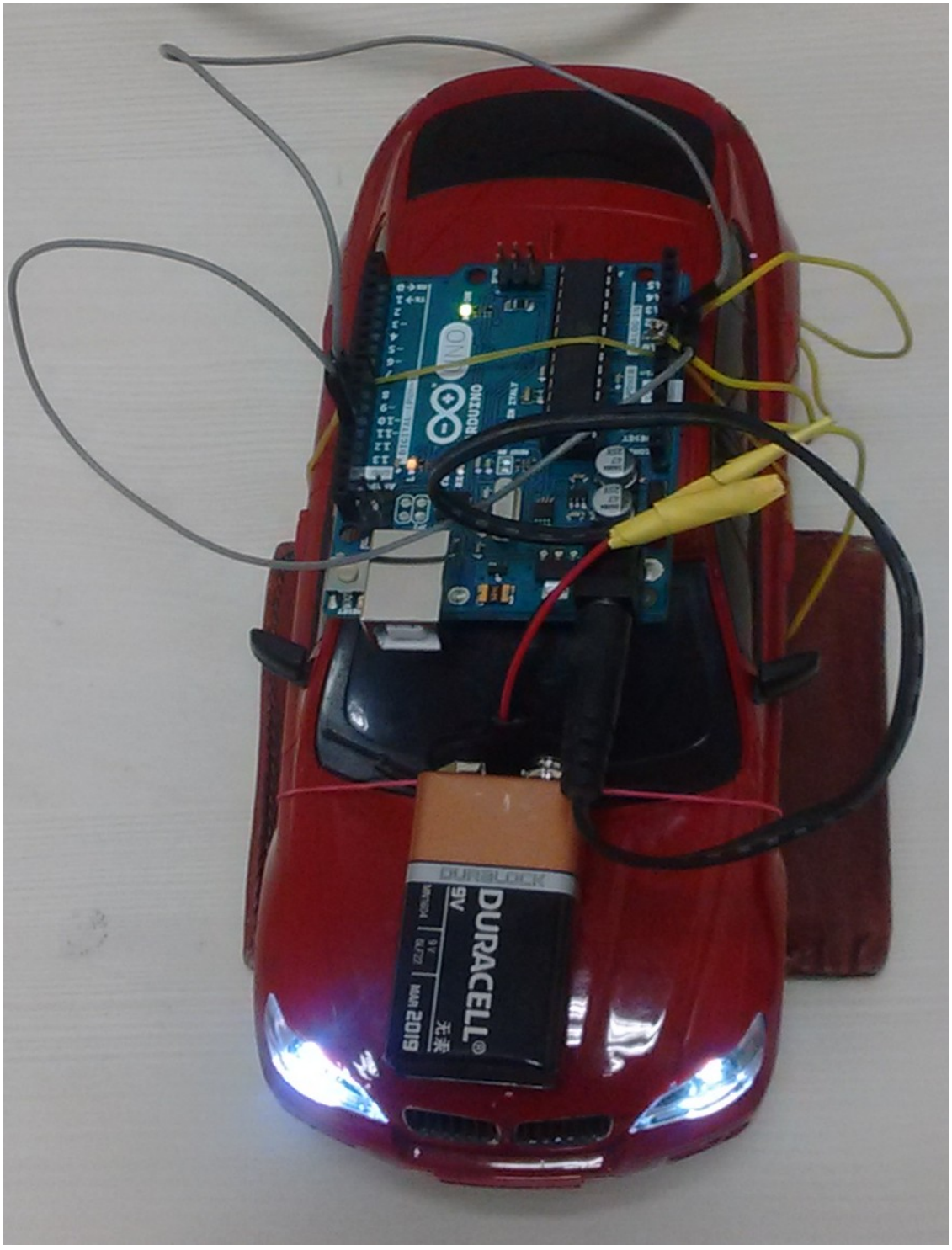
Mount Arduino along with 9V battery on the car using rubber bands



Step 6: Fasten your seatbelts

Power on the remote car.

The car will move/turn as per the sequence mentioned in the code.



References

1. http://www.instructables.com/id/Autonomous-Control-of-RC-Car-Using-Arduino/?ALLSTEPS
2. http://www.rcgroups.com/forums/showthread.php?t=675500
3. https://www.arduino.cc/en/Tutorial/HomePage