

RC CARS – HOW DO I WORK WITH THAT?



Brent House

Presented at STEM Afterhours on February 7, 2011

You May Have a Lot of Questions

- ▣ How much will this project cost?
- ▣ Where do you find information on RC cars?
- ▣ What if I'm not an expert. Where do I go for help in building a car?
- ▣ Are there any books about RC cars or on-line resources that can help me?

This session will answer your questions

You Don't Have To Be the Expert

- ▣ Look for 4-H advisers who tinkered with RC cars when they were growing up.
- ▣ Research hobby stores in your area. Owners are experts in building kits.
- ▣ Do you have any RC courses in your area? Go to a race and talk to those racing. Will they help you build a car?

Bring one or more of those individuals on board for this project

Researching for the Right Car

- ▣ This is the most important step
 - Determine what works best for your environment
 - Are you running it on a street?
 - Are you going out to the back lot (which would mean an off-road vehicle)?
 - Do you want to race it?
 - Are you wanting a vehicle to jump?
 - What are rock crawlers?
 - Don't buy the first vehicle you see. Spend time doing your research to get the best car.

On-Road Flat Chassis



See how rigid this piece is.

It wouldn't allow flexibility over dirt and tree roots.

Must be run on flat pavement.
Even stones can create problems

Off-Road, Buggy-Type Chassis

Notice the difference in the frame.

The chassis is lifted off the ground. The shocks allow the car to absorb bumps more easily.



Stadium Trucks

Similar to the Buggy Style Chassis

The chassis is lifted off the ground. The shocks allow the car to absorb bumps more easily.



Truggies



Mixture between
a stadium truck
and a buggy

Able to run on uneven ground

Ruggedness shows up in overall suspension arms

Monster Trucks

Higher off the ground and you can do anything with it



Caution: Electric vehicles cannot be run around water.

Water will short out the electrical components!

Rock Crawlers

- ▣ Newest RC vehicle on the market
- ▣ Most popular in California, Arizona, and Nevada

Will
actually
crawl rocks



Costs

Team Associated Factory Team T4 - \$229.99	Tamiya Nismo GT - R R34 (Skyline) - \$124.99
Futaba Magnum 2pl-fm - \$89.99	Futaba T2PH Radio - \$47.99
GTC Electronic Speed Control - \$79.99	Pro Match 6 Cell Battery Pack - \$49.99
Hitec HS-645MG Servo - \$35.99	Dynamite Vision Peak 2 Charger - \$40.00
Chameleon 19t Motor - \$34.99	Motor - came with Skyline
Miscellaneous Parts - \$9.29	Miscellaneous Parts - \$21.00
Total 639.94	Total \$283.97

- ▣ Are there tracks where you can run your vehicle?
 - ▣ Do they have any rules that limit what you can do (i.e., they may not allow the car to have a reverse)?
 - ▣ Some tracks race both electric and nitro. This project is for *electric* radio-controlled vehicles.



19 Race Tracks in Ohio



Magazines

- ▣ RC Driver
 - ▣ Regular Price: 12 issues at \$59.00
- ▣ R/C Car
 - ▣ Subscription 12 issues at \$19.99
- ▣ Radio Control Car Action
 - ▣ Regular Price: 12 issues at \$71.00
 - ▣ Subscription 12 issues at \$27.95
- ▣ Xtreme RC Cars Magazine

Books

- ▣ Look at your local library for books that may help with this project.

- ▣ Some that I like:
 - *The R/C Car Bible* by Robert Schleicher
 - *RC Car Basics* from the publishers of Radio Control Car Action

- ▣ Dewey Decimal System – starts with 629

On-Line Resources

- ▣ <http://rcvehicles.about.com>
- ▣ <http://www.everything-rc-cars.com/index.htm>

Special Tools Make a Better Finished Project



Lexan Scissors

Reamer

Soldering Gun

Any questions?