

High score wins

Total Score _____ Tier _____

TIER Determination

- 1. Meets all requirements Tie Breakers: Least number of electrical, hydraulic, pneumatic motors, then qual. Tech documentation
- 2. Does NOT meet all construction qualifications 3. Competition violations
- 4. Robot is unsafe to run, violates FCC regulations, can not score points – 1 participation point only
- 5. Interference or coaching by anyone = DQ

School Name: _____ Team Name: _____

Robot Arm C - February 18, 2012

Student(s): 1.) _____ 2.) _____

CONSTRUCTION QUALIFICATION

Please Circle

- One robot per team, optional base Y N
- Robot must have legible team name on it Y N
- All parts, in ready to run position, fit in 30 cm x 30 cm square
excluding control box(es), transmitter and/or connecting wires Y N
- Must be powered by electrical, elastic or gravitational energy ONLY Y N
- Operated by radio control, infrared, or control box with wires attached to robot Y N
- Radio control, if used, is unmodified, commercially available, marked equipment operating on
75 MHz, 49 MHz, 27 MHz or 2.4 GHz allowable frequencies Y N
- Commercial battery(ies) do not exceed labeled 14.4 volts Y N

DOCUMENTS:

missing incomplete

<u>Engineering Drawing</u> : all: motors/actuators on arm; energy sources; arm(s) end effectors, arm controls		
<u>Individual Component List</u> : each component and its: a.source; b. ≥ 2 key properties; c. energy source		
<u>Operating Description</u> : Device reaction to each control input; Proposed plan of movement		

Four items from the above lists – pointed out on device by competitors Y N
If No, number of items missing or incorrectly identified _____

5 Minutes to prepare device

Competition ended because (check one)

- _____ 3 minutes elapsed _____ Team said “Stop.” _____ Arm became detached from optional base
- _____ Team stepped on Comp area second time after warned once _____ Device moved by control box connections
- _____ End effector moved by anything other than stored energy in the device
- _____ Any part in the Arm Square exits the Arm Square _____ No #5 protective eye wear

Scorable items are out of play & do NOT count if:

	Pencils (5)	Nails (5)	PVC pipes (5)	Batteries (4)
they touch the surface outside of Competition Field				
items are moved by team or control box connections				

Items completely supported by goal boxes at end of Competition time. Item was placed in box while it was upright.

Item(s)	West goal box #	Points	North Goal Box #	Points	East Goal Box #	Points
Pencils (5)	3 pts/pencil		2 pts/pencil		2 pts/ pencil	
Nails (5)	2 pts/nail		3 pts/nail		2 pts/nail	
PVC pipes (5)	2 pts/pipe		2 pts/pipe		3 pts/pipe	
Batteries (4)	4 points (one or more)		4 points (one or more)		4 points (one or more)	
TOTALS						

Total: West Goal box _____ + North Goal Box _____ + East Goal Box _____ = _____

of items in North Zone AND NOT completely supported by Goal or Bonus Boxes _____ X 1 = _____

Bonus Box - ≥ 1 pencil _____ + ≥ 1 nail _____ + ≥ 1 PVC Pipe = _____ X 10 = _____
Number Max = 30 pts

≥ 1 item fully in North Zone OR supported by a Goal Box at end, # goal boxes not sideways _____ X 5 = _____
Max = 15 pts

Sub-Total _____

Document Penalties: Each Missing document: subtract **10%**; max = 30%
Each Incomplete document, subtract **5%**; max = 15% - _____

Items missing or incorrectly identified at check –in – see above _____ X 1 = _____ subtract