ROANOKE VALLEY PERSONAL COMPUTER CLUB

SoftTalk

The Official Newsletter of the Roanoke Valley Personal Computer Club

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Josh Kelly of Coronado, Calif., plays Arctic Thunder Arcade Game; Inset scene (above) shows riders on the run

FEEL THE RIDE!!

Computers have made even lowly arcade games a real adventure as discovered by newsletter editor Sandra Kelly during a recent visit with her grandson, Josh Kelly, in San Diego-Coronado, Calif. It was a thrill to crawl onto the machine behind her grandson and feel the motor roar as they competed to run the fastest and safest. So far, the game hasn't been found in any Roanoke Valley arcade, but you can play it (without the motion effects) on a PlayStation or Xbox.

(Meets 2nd Saturday of Month)

Next Meeting
Sat., July 9
Place: Arnold R. Burton Technology Center, Room 105, 1760 Roanoke Boulevard, Salem, Va. 24153
Time: 9:15 a.m. - noon

This newsletter is published by the RVPCC.

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Help your newsletter

You are invited to share favorite websites, reviews of software or just general computer experiences. send your article or notes to editor@ rvpcc.org.

PREZ' NOTES

by Earl Abbott, president@rvpcc.org

NOTES ON ELECTRICAL SAFETY

The objective of the following is to furnish basic knowledge on electrical shock danger.

The human body can live days without food or water, but the brain can live only minutes without oxygen. Oxygen is carried from the lungs to the brain by the blood that also carries carbon dioxide from the brain back to the lungs. A steady flow of blood is therefore necessary to maintain life of the brain.

An electric shock can cause the heart to stop being an effective blood pump. The heart can enter one of several failure modes:

VENTRICULAR FIBRILLATION: (a rapid, uncoordinated series of contractions of the heart ventricular muscles). The heart is not effectively pumping blood while it is in this mode, and a person's brain could die while the heart is in this mode.

Or, NO HEART BEAT: The heart muscles could remain in the contracted state, or in the expanded state, and a person's brain could die while the heart is in this mode.

An electric shock can cause the heart to go into ventricular fibrillation (VF). Another electric shock can cause the heart to come out of VF. Medical personnel can use defibrillators to restart the heart at a healthy beat frequency.

A sustained current of approximately 10 milliamperes will cause a human muscle to contract and remain contracted. This 10 ma current through the heart could cause it to remain contracted. This 10 ma current through a particular hand muscle could cause it to remain contracted, and the victim would be unable to release the conductor that is shocking him.

The human body's primary defense against electrical shock is dry-skin.

Characteristics of human skin:

Dry-skin has highest electrical resistance.

Its resistance is lowered by water, sweat, blood.

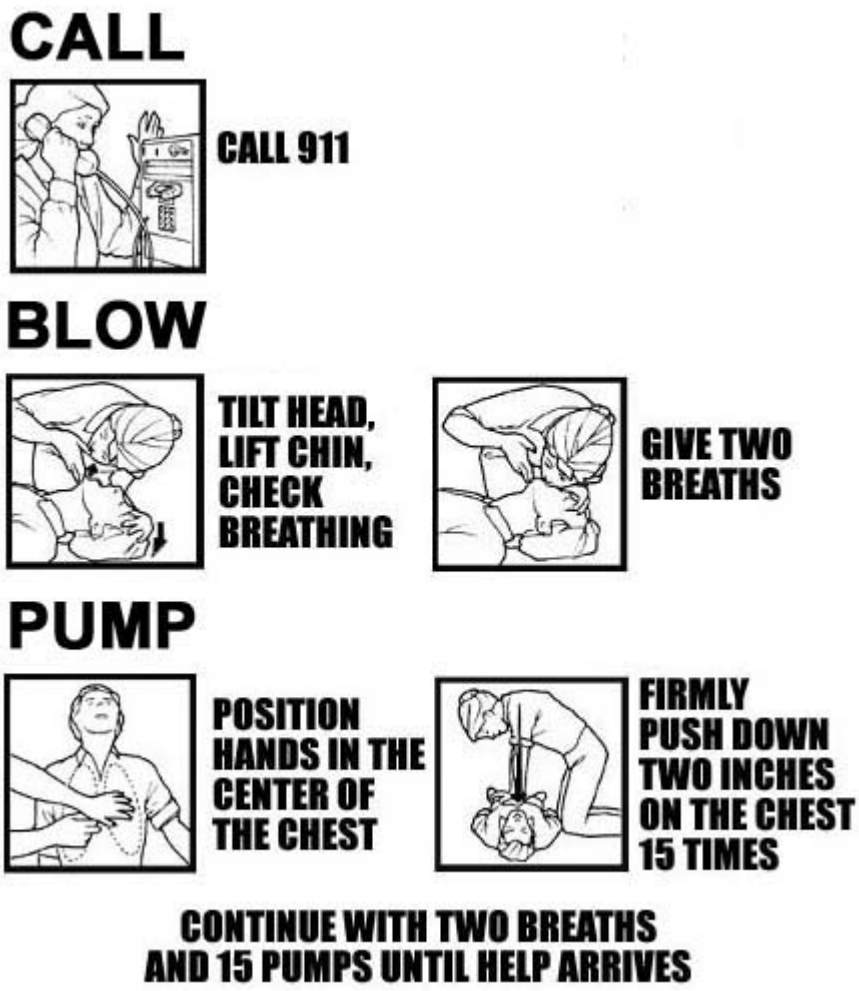
Resistance of the skin is considerably lower when it contacts electrical potentials greater than 600 volts. Dry-skin behaves like a capacitor (its resistance gets lower as the frequency of the voltage is increased)

Radio Frequency (RF) Burns: Resistance of dry-skin at 60 Hertz is a million times higher than is dry skin resistance at 60 Megahertz.

MY RF BURN

I liked to experiment with stuff while I was in high school. I received an RF burn to my

Electrical notes, continued from page 2



Graphics courtesy of American Heart Association

Please see page 3

hand while fooling around with an antenna tuner for my amateur radio station.

The frequency was 21 Megahertz, the power was 100 watts, and the burn was quite small but painful. The burn was shallow, but healed slowly.

The danger and damage would have been higher if the power and frequency had been higher.

OHM'S LAW:
CURRENT = VOLTAGE divided by RESISTANCE

The objective in electrical safety is to have enough electrical resistance between the human and the high voltage so that the resulting current is negligible.

Materials having high resistance are insulators. Some examples of insulators are plastic, wood, rubber, paper, enamel, air and vacuum.

PERSONAL COMPUTER SYSTEMS

The personal computer is being used with an increasing number of appliances. The 110 VAC used to power these appliances is a lethal voltage. A well-designed system will have a number of features for safe operation.

Use GFI (ground-fault interrupting circuit breaker).

Lethal voltages will be surrounded by enclosures.

Metal enclosures will be connected to an earth ground.

Plastic or wood enclosure are not grounded; but, the neutral terminal for 110 VAC circuits that are in these should be connected to an earth ground.

HEED ALL SAFETY NOTICES AND WARNINGS!

My Notes on Electrical Safety is a work-in-progress. I hope this has been helpful.

More About Electricity

www.pbs.org/tesla/ins/ins_elec.html

Understanding Electricity and Circuits: What the Textbooks Don't Tell You
http://science.uniserve.edu.au/school/curric/stage6/phys/stw2002/sefton.pdf

Understannding CPR
www.americanheart.org/presenter.jhtml?identifier=4479

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To:

Roanoke Valley Photographer Tommy Firebaugh with actor Tom Cruise

Photog uploads pictures of experience as 'Worlds' extra

On the eve of the release of ' War of The Worlds,' Roanoke Valley professional photographer Tommy Firebaugh, who played an extra in the film, have posted some behind-the-scenes photographs that he took while on location in Rockbridge County.

The photographs include Tommy and Ed Easterling meeting Tom Cruise and Willard Scott and family.

Check out his website at: www.tommyfirebaugh.com/index.php

Trying Cox Digital Phone Service

By DEL KIRSCHNER

Cox Communications offers digital telephone service to customers who have subscribed to their TV or broadband Internet service. The Cox phone service is about 10 percent cheaper than Verizon's service. For me, however, there was the potential for improved Dial-Up Internet connections. My Verizon wiring is underground and almost 30 years old, and the maximum Internet connection speed has been typically 26,400, sometimes as low as 24,000, occasionally as good as 28,800.

After the installer disconnected the Verizon service line and connected a Cox modem to my house phone system, it was a simple matter to access the Internet as I had always done. The connection speed increased to approximately 50,000, and it seemed that I had gained almost a 100% increase in speed.

However, the new Cox service exhibited an annoying trait – it would not stay connected to my ISP, usually dropping out in four to six minutes, occasionally maintaining the connection for much longer times.

A visit by a service technician seemed to indicate that my V90 modem needed to be upgraded to a V92. However, two different V92 modems on two different computers using Windows 98 and Windows 2000, connecting to two different ISPs, did not produce any changes.

More calls to the technical people, including the engineering staff in Atlanta, elicited the information that the Cox system showed no problems with connections.

As a result, I have reconnected to the slower, but highly reliable, Verizon telephone system.

Meeting space provided by Roanoke County

Web hosting provided by:
http://www.icn.net/