

[Pop captions up]

Kate Abraham: HI, I'M KATE ABRAHAM.
ON TODAY'S SHOW I'M GOING TO
SHOW YOU SOME FANTASTIC GADGETS
FOR PETS, AND FRANK LINHARES IS
GOING TO USE THIS TO HACK INTO
AN AUDIO AMP.
ALL THIS AND MORE TODAY ON
"THE LAB WITH LEO."

[Pop captions down]

(Theme music: Digital, integrating dial-up modem)

[Pop captions up]

Leo Laporte: I THINK I SPILLED A LITTLE BIT.
HEY, HOW ARE YOU?
GOOD TO SEE YOU AND WELCOME
TO "THE LAB WITH LEO!"
THIS IS THE LAB, I'M LEO, AND
WE'RE SO GLAD YOU'RE HERE.
THIS IS THE SHOW WHERE WE
EXPLAIN HOW TECHNOLOGY WORKS IN
ALL ITS FORMS AND FASHIONS.
COMPUTERS, THE INTERNET, CELL
PHONES, CAMCORDERS, MP3 PLAYERS.
I GOT THIS ALL MEMORIZED.

(laughing)

Kate: YEAH, YOU'RE GOOD.

(laughing)

Leo: HOME THEATER.

[Pop captions down]

Leo: KATE ABRAHAM, LADIES
AND GENTLEMEN.

HI, KATE.

Kate: HELLO.

Leo: WAS THAT A CAT DOOR?

Kate: THAT ACTUALLY WAS A
CAT DOOR OR A SMALL DOG DOOR.

Leo: CAT-- I HAVE A SMALL DOG.

Kate: YEAH?

Leo: I HAVE A DOG SMALLER
THAN A CAT ACTUALLY.

Kate: THEN THAT DOOR IS PERFECT.

Leo: YEAH, IT WOULD BE JUST RIGHT.

SO, THESE ARE-- ARE THESE LOW
TECH OR HIGH TECH?

Kate: THESE ARE-- IT DEPENDS
IF THEY'VE GOT BATTERIES, I
CALL THEM HIGH TECH.

Both: (laughing)

Leo: IT'S TRUE, A CAT DOOR
WITH BATTERIES WOULD BE
HIGH TECH.

Kate: IT'S HIGH TECH, BUT
THERE ARE SOME GREAT GADGETS.

Leo: COOL, THIS WILL BE FUN.

Kate: BIG ONES AS WELL.

Leo: I LOOK FORWARD TO IT.
ALSO, DIDIER COMBATALADE WILL
BE HERE VIA Skype.

Kate: YES.

Leo: HE'S GOING TO MONITOR
MY VITAL SIGNS.

Kate: EXACTLY.

SO, YOU NEED TO BE CALM.

Leo: WHAT DOES THIS MEAN?

Kate: IT'S YOUR BIOFEEDBACK.

Leo: (exhales) CALM?

I'M DOING A LIVE TV SHOW.

Kate: (laughing)

Leo: CALM, WHAT ARE YOU

TALKING ABOUT CALM!?

I CAN'T BE--

Kate: (imitating pulse rate)

Leo: OKAY, WE'LL SEE, WE'LL SEE.

I MIGHT BE CALM, YOU NEVER KNOW.

I'VE BEEN DOING THIS A LITTLE WHILE.

WE SHOULD DO THIS TO YOU.

Kate: (imitating increased pulse rate, laughing)

Leo: FRANK LINHARES IS ALSO HERE.

ONCE AGAIN, ANOTHER DEVICE

THAT'S HARD TO GET THROUGH

AIRPORT SECURITY, AN AL--

(laughing)

Kate: ABSOLUTELY.

Leo: -- AN ALTOID BOX MP3 PLAYER AMP.

Kate: MM-HMM.

Leo: YEAH, MM-HMM.

Kate: MM-HMM.

Leo: WHY WOULD HE TRY THIS?

APPARENTLY THIS TIME HE HAD THE

FORESIGHT, GOING THROUGH

AIRPORT SECURITY, TO ANNOUNCE --

Kate: "I'M A HACKER."

Leo: -- I HAVE A BO-- NO, HE

DIDN'T SAY-- HE SAID I HAVE AN

MP3 AMP IN AN ALTOIDS TIN, I
JUST WANT YOU TO KNOW AND IT
WENT A LITTLE BIT BETTER THIS TIME.

Kate: I THINK TORONTO
AIRPORT KNOWS HIM WELL.

Leo: WELL, IT SCARES THEM
WHEN THEY FIND THAT --

Kate: YES, THEY'RE LIKE, "IT'S YOU."

Leo: -- AND YOU DON'T TELL
THEM AHEAD OF TIME, EE-EE-EE.
AND OF COURSE WE'RE GOING TO
HAVE LOTS OF GREAT CALLERS --

Kate: ABSOLUTELY.

Leo: -- BECAUSE THAT'S WHAT
THIS SHOW IS ALL ABOUT.
WE'VE GOT ANOTHER TEXAN, THAT'S GOOD.

Kate: MM-HMM.

Leo: SOME ONTARIANS.

Kate: AH.

Leo: AND THEN SOMEBODY FROM B.C.

Kate: ABSOLUTELY.

WE'RE GOING ALL OVER TODAY.

Leo: WHO DO WE START WITH?

Kate: WE HAVE CHRIS FROM
SURREY IN B.C.

Leo: MM, THANK YOU, KATE.

Kate: THANK YOU.

[Pop captions up]

Leo: HELLO, CHRIS.

Chris: HI, LEO. HOW ARE YOU?

Leo: I'M GREAT.

OH, LOOK AT THIS GREAT PICTURE.
LADIES AND GENTLEMEN,

Mr. STEVEN SPIELBERG JOINING US TODAY.

Chris: (laughing) YEAH, RIGHT.

Leo: YOU PROBABLY GET THAT
ALL THE TIME, DON'T YOU, CHRIS?

[Pop captions down]

Chris: ACTUALLY, I WORK IN
THE MOVIE INDUSTRY, SO
SOMETIMES I DO GET THAT.

Leo: (laughing)

Mr. SPIELBERG --

Chris: YEAH.

Leo: -- Mr. SPIELBERG, WILL
YOU LOOK AT MY NEW SCRIPT?

Chris: (indiscernible)

Leo: (talking over caller)

SO, IT'S GOOD-- WHAT DO YOU DO
IN THE MOVIE INDUSTRY, CHRIS?

Chris: (indiscernible)

TRAILER.

Leo: OH, HOW FUN.

Chris: YEAH.

Leo: SO, YOU'RE THE GUY WHO
DOES, (deep voice) "IN A WORLD
BEYOND TIME, A MAN WITH NO NAME."

Chris: (laughing)

Leo: THAT KIND OF STU--
THAT'S THE MOST INTERESTING
EDITING BEING DONE TODAY IS THE
MOVIE TRAILERS.

Chris: OH, YEAH.

Leo: IN FACT, SOMETIMES I
THINK YOU GUYS DO TOO GOOD A
JOB BECAUSE THE MOVIE -- YOU

GET ALL THE BEST PARTS OF THE
MOVIE IN A 1-MINUTE TRAILER AND
THEN IT'S ALL -- THERE'S NOTHING LEFT.

Chris: OH, YEAH,

(indiscernible) I DON'T GET STEVEN SPIELBERG'S TRAILER.

Leo: (laughing)

Chris: BUT I DON'T WORK IN TRAILERS.

Leo: OH, YOU WORK IN THE TRAILER.

Chris: NO, I DO ANIMAL SAFETY.

I'M THE ANIMAL SAFETY REP FOR
AMERICAN HUMANE.

Leo: OH, NO KIDDING.

Chris: (indiscernible)

Leo: (talking over caller)

OH, THAT'S GREAT.

Chris: ...AND THAT SORT OF
THING, WHICH IS INTERESTING
BECAUSE IT REQUIRES ME TO USE A
LOT -- OR KNOW A LOT ABOUT
MOVIE TECH BECAUSE I HAVE TO
OFTEN OFFER ALTERNATIVES TO THE
WAY THEY WANT TO SHOOT SOMETHING.

Leo: OF COURSE YOU DO.

YEAH, HOW INTERESTING.

Chris: SO, YEAH.

Leo: BUT WHAT A GREAT JOB.

WHAT CAN I DO TO HELP YOU WITH
YOUR TECH?

Chris: WELL, I BOUGHT A DVD
A WHILE AGO.

Leo: MM-HMM.

Chris: AN AUDIO DVD,
LADYSMITH BLACK MAMBAZO AT THE

MONTREAL JAZZ FESTIVAL.

Leo: OHH, LOVE THEM.

Chris: AND-- YEAH, THEY'RE
GREAT, AREN'T THEY?

Leo: OH, I'VE INTERVIEWED
THEM AND I'VE HEARD THEM PLAY
LIVE IN MY STUDIO.
UNBELIEVABLE.

Chris: LUCKY YOU.
I'VE NEVER HEARD THEM LIVE.

Leo: BEAUTIFUL VOICES.

Chris: YEAH.

Leo: SO --

Chris: WHAT I WANT TO DO IS
I WANT TO RIP THE AUDIO ONLY INTO iTunes --

Leo: RIGHT.

Chris: -- AND I DON'T WANT THE VIDEO.

Leo: RIGHT.

Chris: AND I KNOW I CAN DO
THE WHOLE THING WITH Audio
Highjack Pro BUT JUST GET A
REALLY BIG FILE, BUT I WAS
HOPING THERE WAS SOMETHING OUT
THERE THAT WOULD BREAK UP THE
TRACKS SO THAT THEY
(indiscernible).

Leo: (talking over caller)

RIGHT.

Audio Highjack Pro IS USING THE ANALOG HOLE.

Chris: RIGHT.

Leo: SO, WHAT THE ANALOG
HOLE IS IS WHEN YOU-- AND IT'S
VERY HARD TO BLOCK THIS,

ALTHOUGH THE MOVIE AND RECORD INDUSTRY WOULD LOVE TO. THE ANALOG HOLE IS AS YOU'RE WATCHING OR LISTENING TO SOMETHING, IT'S GOING BACK THROUGH YOUR ANALOG PLAYBACK, THROUGH YOUR SOUND CARD INTO YOUR SPEAKERS, THERE'S NOTHING TO STOP YOU FROM CAPTURING THAT AND REDIGITIZING IT.

SO, THAT'S WHAT'S HAPPENING. AS THE MOVIE IS PLAYING, THE AUDIO TRACK OF THE MOVIE IS BEING RECORDED AS IT'S BEING CONVERTED BY THE SOUND CARD BY Audio Hijack Pro.

NOW, THERE'S A DISADVANTAGE TO THAT BECAUSE YOU'RE CONVERTING DIGITAL TO ANALOG AND THEN BACK TO DIGITAL AGAIN.

SO, YOU DEGRADE THE SIGNAL A LITTLE BIT.

AND YOU'VE ALREADY NOTED THE OTHER PROBLEM, WHICH IS IT DOESN'T KNOW ANYTHING ABOUT WHAT IT'S LISTENING TO, IT JUST RECORDS EVERYTHING.

Chris: RIGHT.

Leo: SO, THERE ARE OTHER WAYS. NOW, ARE YOU ON A Mac OR Windows?

Chris: I PREFER A Mac, BUT I CAN GO EITHER WAY.

Leo: OKAY.

THERE IS A Wi-- I DON'T KNOW OF
A Mac PROGRAM THAT DOES THIS.

[Pop captions up]

Leo: THIS IS A Windows
PROGRAM FROM Imtoo -
I-M-T-O-O - .com CALLED DVD
Audio Ripper THAT'S
SPECIFICALLY TO DO THIS.

NOW, YOU'RE IN THE MOVIE
INDUSTRY, CHRIS, SO I OUGHT TO
LET YOU KNOW THAT THE MOVIE
INDUSTRY IN MANY COUNTRIES, I'M
NOT GOING TO SAY ANYTHING ABOUT
YOUR JURISDICTION, BUT IN MANY
COUNTRIES THIS IS ILLEGAL, SO I
JUST WANT TO WARN YOU AHEAD OF TIME.

Chris: YEAH.

Leo: LET YOUR CONSCIENCE AND
THE LOCAL LAWS OF YOUR SOCIETY
BE THE GUIDE.

Chris: I FOLLOW-- I THINK
THIS IS A FAIR USE
(indiscernible).

Leo: (talking over caller)
THAT'S WHAT I SAY.
YOU BOUGHT THE DARN THING, IT'S
NOT LIKE YOU'RE, YOU KNOW,
TAKING THE MUSIC AND PUTTING
OUT A CD FOR OTHER PEOPLE TO BUY.

Chris: (indiscernible)

Leo: YOU JUST WANT TO LISTEN
TO THE MUSIC, YEAH.
I THINK THAT'S PERFECTLY FAIR

USE, BUT ANYWAY THAT'S -- YOU
KNOW, THAT'S-- I SHOULD JUST
WARN YOU ABOUT THAT SINCE YOU
ARE IN THE MOVIE INDUSTRY.

[Pop captions down]

Leo: THE DVD Audio Ripper I
BELIEVE WILL HONOR THE TRACKS
AS THE MOVIE MAKES THEM.
SO, I THINK, IN FACT, THAT IN
GENERAL AN AUDIO SOUND TRACK, I
MAY BE WRONG, ISN'T DIVIDED UP
LIKE A RECORD IS.

NOW, IT MIGHT BE DIFFERENT ON
THIS LADYSMITH BLACK MAMBAZO
BECAUSE THEY'RE A MUSICAL
GROUP, SO THEY MAY HAVE PUT
CHAPTERS OR SOMETHING IN THERE
AND THIS WILL PROBABLY
RECOGNIZE CHAPTERS, BUT THERE
AREN'T INDIVIDUAL AUDIO TRACKS
AS THERE WOULD BE ON A CD.

Chris: OH, OKAY.

Leo: SO, BUT WHAT THIS DOES,
AND IT'S VERY COOL, IS IT
ALLOWS YOU TO -- IT HAS A
WINDOW WITH A MOVIE IN IT.
IT ALLOWS YOU TO WATCH THE
MOVIE AND MARK THE START AND
STOP SO YOU CAN CREATE YOUR OWN
TRACKS VERY SIMPLY AS -- YOU
KNOW, AND THEN RIP 'EM.
SO, IT GIVES YOU A PREVIEW OF THE MOVIE.
THIS IS DVD Audio Ripper.

IT'S FREE TO TRY, 30 BUCKS TO BUY.
IT'S NOT EXPENSIVE.
NOW, THERE'S ANOTHER WAY YOU
COULD DO THIS THAT WOULD BE
BETTER THAN Audio Hijack BUT
NOT SOLVE THIS PROBLEM OF DIVIDING IT UP.
I DON'T THINK-- I THINK
DIVIDING IT UP IS DIFFICULT
BECAUSE THE AUDIO TRACK IS NOT
DIVIDED UP.
IT'S-- YOU KNOW, THE BEST
YOU'LL GET IS DVD CHAPTERS.

Chris: RIGHT.

I DIDN'T REALIZE THAT ACTUALLY.

Leo: YEAH.

I MEAN, IT'S NOT LIKE A RECORD, RIGHT.

Chris: NO.

Leo: ON THE-- THERE'S A
GREAT PROGRAM CALLED HandBrake
ON THE Macintosh AND PC.
h-a-n-d-b-r-a-k-e, LIKE, YOU
KNOW, YOU'RE SLOWING DOWN THE
CAR, .m0k.org.

[Pop captions up]

Leo: AND, NOW, HandBrake
WILL TAKE THE DVD, ENTIRE DVD,
INCLUDING THE AUDIO, AND TURN
IT INTO MPEG-4 AND YOU CAN
SPECIFY WHAT DIGITAL AUDIO
FORMAT YOU WANT WITH MPEG.
SO, YOU COULD KEEP IT IN THE
AC3 FORMAT OR YOU COULD CONVERT
IT TO MP3.

YOU'D PROBABLY WANT TO CONVERT
IT TO MP3, AND IT'LL DO THAT FOR YOU.

[Pop captions down]

Leo: NOW, WHAT YOU'RE GOING
TO GET THOUGH IS ONE BIG FILE
WITH AN AUDIO AND VIDEO TRACK
AND NO CHAPTERS ONCE AGAIN;
HOWEVER, YOU COULD-- AND BY THE
WAY, THEN YOU CAN USE QuickTime
Pro TO SAVE OUT THE AUDIO TRACK ONLY.
AND IF YOU'RE IN QuickTime Pro,
YOU CAN EASILY DIVIDE IT UP AT
THAT POINT TOO.

Chris: RIGHT, WHICH I HAVE. OKAY.

Leo: YEAH.

I THINK THAT THERE'S NOTHING
THOUGH THAT SAYS THIS IS SONG
1, SONG 2, SONG 3, UNLESS THE
MOVIE IS DIVIDED INTO CHAPTERS.
AND THEN THE -- AND I BELIEVE
THE DVD Audio Ripper WILL
RECOGNIZE CHAPTERS.

Chris: GREAT.

Leo: OKAY, CHRIS?

Chris: GREAT.

Leo: YEAH, I KNOW WHAT YOU--
A LOT OF PEOPLE WANT TO DO THIS
BECAUSE SOMETIMES MOVIE SOUND
TRACKS ARE THE BEST PART OF THE MOVIE.
THE MUSIC IS THE GREATEST STUFF.
I SEE FRANK LINHARES IS GOING,
"OOH-OOH-OOH-OOH, Mr. CARTER."
YOU GOT ANOTHER WAY TO DO THIS?

Frank: THERE IS A COMPARABLE
SOFTWARE TO THE Windows ONE YOU
WERE TALKING ABOUT FOR THE Mac
THAT'S BY iSkysoft AT iskysoft.com CALLED --

Leo: iSkysoft.

Frank: -- DVD Audio Ripper
AND IT DOES EXACTLY THE SAME
THING THAT THE --

Leo: OH.

Frank: -- Windows SOFTWARE DOES.

Leo: OH, INTERESTING.

I NEVER HEARD OF THAT, DVD
Ripper FOR Mac, SAME THING.

Frank: YEAH, THERE'S A TRIAL
VERSION AS WELL AND IT'S 30 OR
25 BUCKS TO BUY.

Leo: THANK YOU FOR FINDING
THAT, THAT'S GREAT.
DVD Audio Ripper FOR THE Mac AS WELL.

[Pop captions up]

Leo: HEY, THANKS FOR THE
CALL, CHRIS, AND THANKS FOR
PROTECTING OUR ANIMALS ON SET.
WHAT'S THE STRANGEST ANIMAL
YOU'VE HAD TO WORK WITH?

Chris: UHH, TIGERS.

Leo: OOH.

Chris: YEAH.

Leo: THAT SOUNDS LIKE FUN.

(laughing)

[Pop captions down]

Chris: THEY'RE A LOT OF FUN,
BUT THEY'RE A LITTLE, UM -- IT

IS A LITTLE MORE TENSE IN
WORKING WITH (indiscernible).

Leo: (talking over caller)

UNPREDICTABLE, ARE THEY?

IT'S LIKE WORKING WITH PAULY
SHORE, YOU NEVER KNOW WHAT
THEY'RE GOING TO DO.

Chris: YEAH, AND THEY'RE
REALLY, REALLY QUICK.

Leo: YEAH.

Chris: THEY'RE AMAZINGLY
FAST FOR A LARGE ANIMAL.

Leo: THAT'S NOT SO GOOD.

(laughing) "ARRR!"

HEY, CHRIS, GREAT TO TALK TO YOU.
THANKS FOR THE CALL.

Chris: THANKS A LOT, LEO.

Leo: TAKE CARE.

Chris: HAVE A GOOD DAY.

Leo: WHEN HE SAID HE WORKED
IN TRAILERS, I THOUGHT-- WELL,
WHO KNOWS.

ANYWAY. (laughing)

[Pop captions up]

Leo: COMING UP IN JUST A
BIT, KATE ABRAHAM, SHE'S GOT
TIGER DOORS, CAT DOORS.
WELL, REALLY SMALL TIGER DOORS.

Kate: LITTLE TIGERS.

Leo: LITTLE TIGERS AND MORE.
COMING UP, HI-TECH GADGETS.
YOU STAY RIGHT HERE.

[Music]

[BLACK/COMMERCIAL]

[Pop captions down]

(Theme music playing)

Leo Laporte: WELCOME BACK TO "THE LAB."

WELL, IF YOU'VE GOT A DOGGY OR
A KITTY OR A BABOON OR A TIGER,
YOU'RE GOING TO BE INTERESTED
IN THIS NEXT SEGMENT.

Kate: ABSOLUTELY.

Leo: IT'S HI-TECH PET GADGETS.
KATE ABRAHAM HAS GATHERED SOME
OF THE MOST INTERESTING.

Kate: THEY'RE HUGE AS WELL,
AREN'T THEY? (laughing)

Leo: THEY'RE HUGE, THEY MAKE
NOISE, THEY BUBBLE, THEY
FILTER, THEY PURR, AND I'M GLAD
WE HAVE A -- WHAT IS THAT?

Kate: OKAY, THIS IS OUR FIRST GADGET.

Leo: IT'S A CEMENT MIXER FOR YOUR CAT.

Kate: I'M JUST GOING TO PLUG THIS IN.
NOW, IF YOUR --

Leo: I DON'T UNDERSTAND WHY
YOU'D WANT TO DO THIS.

Kate: THIS IS A TOILET FOR YOUR CAT.

Leo: OH, IT'S A TOILET.

[Pop captions up]

Kate: IT'S CALLED THE Litter-Robot.
SO, IMAGINE THESE LITTLE ITEMS
HERE ARE GOING TO BE MY CAT POO.
SO, WHAT YOU DO IS YOU PUT THEM IN.

Leo: YEAH?

Kate: AND WHAT HAPPENS IS--

Leo: SO, THE CAT-- SO, WAIT A MINUTE.

DOES THE CAT GO AROUND?

Kate: LET ME SHOW YOU.

ACTUALLY, WE HAVE A LITTLE DEMO

FROM THE ONSITE--

Leo: OH, AND IT GOES INTO THE LITTLE --

Kate: YEAH, SO BASICALLY

WHAT HAPPENS IS IS --

Leo: -- LITTLE THING, THE FLUSHER.

Kate: -- THAT YOUR CAT GOES

TO THE TOILET.

Leo: YEAH?

[Pop captions down]

Kate: IT HAS 7 MINUTES TO GET OUT.

Leo: (laughing) OH.

Kate: AND WHAT HAPPENS IS IS

THAT THE FILTER ACTUALLY -- IT

BASICALLY ROTATES --

Leo: YEAH?

Kate: -- AS YOU CAN SEE FROM

THE ONLINE DEMO.

AND THEN WHAT HAPPENS IS FROM

THERE IS THAT THE POO GETS

MOVED AROUND, BUT THE LITTER

STAYS WITHIN THE CAT LITTER.

AND THEN WHAT HAPPENS IS THE

POO DROPS INTO THE TRAY --

Leo: (laughing)

Kate: -- AND YOU DISPOSE OF

THE POO FROM THE TRAY.

SO, THERE YOU GO AND THAT'S

WHAT HAPPENS.

NOW, IF YOUR CAT STAYS IN HERE,

I SHOULD IMAGINE IT'S A RATHER
INTERESTING IDEA.

BUT, YEAH, SO THAT'S THE Litter-Robot.

Leo: (laughing) IT HELPS IF
THE CAT'S DONE IN 7 MINUTES.

Kate: YEAH, 7 MINUTES.

Leo: ONLY -- ONLY IN THE
DEVELOPED NATIONS WOULD YOU SEE SOMETHING --

Kate: YES, SO THERE YOU GO.

AND THIS --

Leo: -- QUITE SO ELABORATE
FOR DISPOSING OF KITTY LITTER.

Kate: SO, IT'S CALLED THE Litter-Robot.

Leo: HOW MUCH, JUST OUT OF...?

Kate: IT'S \$300.

Leo: WELL, THAT'S NOT BAD CONSIDERING.

[Pop captions up]

Kate: AND, YEAH, THE IDEA IS
IF YOU GO AWAY FOR THE WEEKEND
AND YOUR CAT'S A HOUSE CAT,
THEN THE IDEA IS THAT YOU CAN
SET UP THAT TRAY --

Leo: KEEPS IT CLEAN.

Kate: -- AND THEN EMPTY THAT
OUT WHEN YOU GET BACK.

Leo: IT'S AN INTERE-- IT'S A
REALLY INTERESTING IDEA.

Kate: THERE YOU GO.

[Pop captions down]

Leo: YOU KNOW, IT'S A BIG
PROBLEM AND I'M GLAD THEY'VE
SOLVED IT SOMEHOW.

Kate: EXACTLY.

Leo: YEAH.

Kate: AND I MEAN THE THING
IS WITH THIS IT'S A GOOD IDEA,
BUT, AS YOU CAN SEE, IT IS VERY BIG.
SO, I MEAN IT'S--

Leo: IT'S BIG, IT'S A LITTLE NOISY.

Kate: YEAH.

Leo: NOT REAL NOISY, BUT A LITTLE NOISY.

Kate: I'M GOING TO UNPLUG
THIS NOW JUST BECAUSE IT DOES
ACTUALLY JUST KEEP TURNING.

Leo: AND THE THEORY WOULD BE
THOUGH THAT YOU WOULD HAVE NO
OFFENSIVE CAT ODOR.

Kate: ODORS, ABSOLUTELY AND
THE THING IS IT'S SELF-CLEANING.

Leo: DID YOU TRY THIS?

Kate: I DON'T HAVE A CAT.

Leo: YOU HAVE A BOYFRIEND,
YOU COULD PUT HIM IN THERE.

Kate: YEAH, HE'S A BIG GUY.

Leo: (laughing)

Kate: OTHERWISE I ACTUALLY
THOUGHT OF PUTTING OUR LITTLE
DIRECTOR ERIC IN THERE, BUT I
THOUGHT MAYBE NOT.

Leo: LET'S GET ERIC TO--
HE'S A LITTLE SMALLER.

Kate: (laughing)

Leo: ALL RIGHT, WHAT ELSE
HAVE YOU GOT?

Kate: ANYHOW, SO MOVING ON,
THIS IS THE Climate Controlled Pet Carrier.

Leo: NOW, I'M IN THE MARKET
FOR A NEW CRATE FOR MY DOG.

Kate: YEAH, THIS IS
ACTUALLY-- THE IDEA IS THAT IF
THE TEMPERATURE GOES BELOW 65 DEGREES --

Leo: OH, THAT'S NEAT.

Kate: -- IT AUTOMATICALLY HEATS UP.

[Pop captions up]

Leo: SEE, THAT'S A GOOD
IDEA, ESPECIALLY IF YOU PUT
YOUR ANIMAL ON AN AIRPLANE --

Kate: EXACTLY.

Leo: -- IT KEEPS THEM WARM.

Kate: AND THE COOL THING AS
WELL, OBVIOUSLY IF IT GOES
ABOVE 72, THEN IT COOLS DOWN.

Leo: OH, IT'S AN AIR-CONDITIONER AS WELL.

Kate: YEAH, EXACTLY.

NOW, THE ONLY THING IS THAT YOU
HAVE TO PLUG IT INTO A SOCKET.
IT'S NOT BATTERY POWERED, SO --

Leo: OH, OKAY.

SO, IT'S NOT FOR THE AIRPLANE.

Kate: YEAH.

Leo: IT'S FOR YOUR HOUSE.

[Pop captions down]

Kate: BUT THE COOL THING IS
IT ACTUALLY DOES HAVE A
CIGARETTE ADAPTER TO IT, SO
WHAT YOU CAN DO IS PLUG IT INTO
YOUR CAR.

Leo: SO, IF THE CAT SMOKES,
THEY ALSO CAN LIGHT UP, OKAY.

Kate: (laughing) EXACTLY.

SO IT CAN HANG OUT IN THE
AIR-CONDITIONING AND HAVE A
CIGARETTE BASICALLY.

Leo: (laughing) I THINK THAT'S A GREAT IDEA.
EVERY CAT CARRIER SHOULD HAVE A
CIGARETTE ADAPTER.

Kate: THIS IS FROM Komfort Pets.
IT'S \$400.

Leo: THAT'S MORE THAN THE
KITTY CEMENT MIXER, WOW.

Kate: ABSOLUTELY, YEAH, BUT
THIS IS AIR-CONDITIONED.

Leo: THAT'S ACTUALLY PRETTY COOL.

Kate: YEAH, EXACTLY.

Leo: NOW, I WONDER HOW WELL
IT DOES THOUGH.

IT'S GOT HOLES ON THE SI--
WELL, I GUESS IT HAS TO FOR THE AIR.

Kate: AS YOU CAN SEE,
THERE'S ACTUALLY A PANEL IN
HERE WHICH IS HEATING OR COOLING.

Leo: OH, SO IT COOLS THE BOTTOM.

Kate: YEAH.

Leo: AHH.

Kate: AND IT ACTUALLY
DOES -- IT RETAINS IT AS WELL,
WHICH IS KIND OF COOL.

Leo: PROBABLY A PELTIER
COOLER, YEAH.

Kate: OKAY, SO THIS NOW,
WE'RE MOVING ON TO, THIS IS
OBVIOUSLY A Drinkwell Pet Fountain.

Leo: NOW, DO YOU NEED TO
HAVE IT BE DOING THE CYCLING?

Kate: THIS IS DE-- ACTUALLY
IT'S DESIGNED BY VETS, AND THE
IDEA IS IS THAT CATS --

Leo: KEEPS IT FRESH.

[Pop captions up]

Kate: YEAH, AND OBVIOUSLY
THE IDEA OF MOVING WATER MAKES
THEM WANT TO DRINK MORE, WHICH
HYDRATES THEM, WHICH PREVENTS
THEM FEELING SICK, WHICH --

Leo: AND THEN THEY CAN GO
USE THE KITTY LITTER.

Kate: EXACTLY.

Leo: YEAH.

Kate: SO, THERE YOU GO.

Leo: THAT'S NEAT.

Kate: SO, THIS IS THE Drinkwell Fountain.

[Pop captions down]

Leo: HOW MUCH IS THAT?

Kate: THIS IS \$80.

Leo: BUT I LIKE THAT AND IT
ALSO GIVES YOU A LITTLE, NICE
LITTLE TRINKLING, TINKLING
SOUND IN THE HOUSE.

Kate: AND THE GOOD THING IS
IT'S GOT A RESERVOIR TO IT, SO
YOU CAN ACTUALLY FILL IT UP
REASONABLY WELL.

SO ACTUALLY YOU COULD LEAVE
THIS RUNNING FOR, SAY, A COUPLE
OF DAYS AS WELL.

Leo: IS THERE A FILTER IN THIS?

Kate: IT HAS A FILTER IN IT.

IT HAS A FILTER.

Leo: THAT'S GREAT.

SO, IT'S ALSO CLEANING IT AS WELL --

Kate: YEAH.

Leo: -- AS WELL AS AERATING IT.

Kate: ABSOLUTELY.

Leo: -- AND URGING KITTY TO DRINK.

Kate: (laughing) MOVING ALONG.

Leo: KITTY IS TRAPPED NOW,

WANTS TO GET OUTSIDE.

WE HAVE OUR LITTLE BABY TIGER.

Kate: MOVING ALONG, THIS

IS THE Smart Door FROM PetSafe.

Leo: YES.

Kate: THE SMALL ONE HERE IS \$150.

THE LARGER ONE IS GOING TO BE 220.

Leo: NOW, I HAVE A LITTLE

CAT DOOR IN MY DOOR --

Kate: YEAH.

Leo: -- BUT IT'S NOT SMART.

IT'S A DUMB DOOR.

Kate: LET ME SPIN THIS

AROUND FOR YOU.

Leo: WHAT MAKES THIS SO SMART?

[Pop captions up]

Kate: OKAY, YOU ACTUALLY

HAVE A FEW DIFFERENT FEATURES

ON THIS.

YOU CAN LOCK THE DOOR, ONCE I

KEEP IT STILL.

Leo: JUST PRESS A BUTTON.

Kate: YEAH, WHAT YOU DO IS
YOU JUST PRESS THIS BUTTON HERE.

Leo: AND IT'S LOCKED.

Kate: AND AS YOU CAN SEE, I
JUST HOLD THAT.

Leo: THERE IT IS.

NOW IT'S GREEN.

Kate: WHEN IT GOES RED --

Leo: OKAY.

Kate: -- IT BASICALLY-- YOU
HAVE TO LET IT LOCK FIRST.

(laughing)

Leo: OH, IT'S LOCKING.

Kate: YEAH.

Leo: I HEAR IT LOCKING.

Kate: SO THEN OBVIOUSLY
YOU-- IF YOU'RE AWAY--

Leo: OH, THE BOLTS-- THIS IS
LIKE LAS VEGAS SAFE, THE BOLTS
ARE GOING INTO PLACE.

Kate: SO, IF YOU'RE AWAY --

Leo: WOW.

Kate: -- IF YOU OBVIOUSLY
WANT YOUR PET TO STAY INSIDE,
THEN YOU JUST LOCK THE DOOR.

Leo: WOW, OR IF OCEAN'S
THIRTEEN IS IN YOUR GARAGE, YOU
PRESS THAT BUTTON AND THEY'RE
TRAPPED, THEY CAN'T GET THE
GOLD OUT.

Kate: AND THEN IT HAS THE
OPEN FEATURE.

Leo: THAT'S KIND OF NICE,

ALTHOUGH I COULD DO THAT BY
SLIDING IT.

Kate: YEAH, THE IDEA IS
THERE'S ACTUALLY A FEATURE AS
WELL, WHICH IS AUTOMATIC AND --

Leo: THIS GOES ON KITTY.

Kate: YEAH, THE PROBLEM IS
IT'S HUGE, BUT THE IDEA IS IT
GOES ONTO THE COLLAR AND THEN
ONCE THE CAT COMES IN THE DOOR OPENS.

Leo: ONLY THAT-- SO, THIS
KEEPS THE RACCOONS OUT.

Kate: YEAH.

Leo: ONLY KITTY, WHO'S
WEARING THIS, CAN GET THROUGH THE DOOR.

Kate: YEAH.

Leo: LET'S TRY IT. YES.

Kate: AND WHAT HAPPENS IS--

Leo: NO PROBLEM AT ALL.
IS IT ON NOW?

Kate: WE HAVEN'T SET IT TO THE RIGHT--

Leo: OH, YEAH, PUT IT ON.
OKAY, UNLOCKED.

OKAY, NOW, LET'S TRY IT AGAIN.

Kate: SO, THE IDEA IS--

Leo: OKAY, HERE COMES BIG
FAT RACCOON, "I WANT SOME FOOD."

Kate: IT TAKES A WHILE.
IT'S NOT LOCKED YET.

Leo: OKAY.

Kate: NOW IT'S LOCKED.

Leo: "I WANT SOME FOOD.
OH, THAT HURTS MY HEAD."

Kate: AND THEN KITTY COME

BACKS ROUND AND SAYS...

Leo: THE KITTY COMES, "MEOW,
MEOW, LET ME IN."

Kate: IT HAS TO HANG OUT FOR A BIT.
THE ONLY THING I'VE FOUND IS
THAT YOUR CAT HAS TO BE PRETTY,
LIKE, WANTING TO GET IN BECAUSE
IT TAKES A BIT OF TIME TO
OBVIOUSLY COME BACK.

Leo: IT'S GOING TO UNLOCK THE DOOR.
HERE COMES-- THE LITTLE BOLTS
ARE SLIDING OUT OF PLACE.

Kate: SO, YEAH, SO
EVENTUALLY KITTY CAN GET GOING.

Leo: (meowing)

Kate: IF WE LEAVE KITTY THERE FOR A BIT.
I IMAGINE KITTY WILL MOVE HOUSE
AFTER A WHILE. (laughing)

Leo: (meowing)

Kate: SO, THAT IS, YEAH,
THIS IS THE Smart Door.

Leo: OKAY.

Kate: MOVING ON --

Leo: YES.

Kate: -- THE GPS.

Leo: I HAVE THIS, THE RoamEO.

Kate: YES.

Leo: I LOVE THIS.

Kate: THIS IS \$500.

Leo: YEAH, I PUT THIS ON MY KID.

Kate: (laughing)

Leo: AND THEN, SO HE WEARS

THE COLLAR, RIGHT.

OKAY, AND THEN EVERYWHERE HE
GOES WITHIN A MILE YOU CAN SEE
WHERE HE IS.

Kate: AND THE IDEA IS --

Leo: AND THEN THEY TALK LIKE THIS.

Kate: THE COOL THING IS YOU
CAN ACTUALLY SET A PARAMETER WITH THIS.

Leo: RIGHT.

Kate: SO --

Leo: SO, IF I GO OUTSIDE OF THE-- OW!

Kate: THEN THE ALARM WILL GO OFF.

Leo: SO, IT'S LIKE A-- BUT

IT DOESN'T ZAP YOU.

IT'S JUST IT'S A AUDIBLE ONE.

Kate: NO, IT DOESN'T.

IT DOESN'T.

YEAH, SO THE ALARM GOES OFF.

[Pop captions up]

Kate: SO, THE IDEA IS YOU
CAN BASICALLY TRACK WHERE YOUR
DOG GOES.

Leo: YEAH, WITHIN A MILE.

Kate: YEAH.

Leo: I-- YOU KNOW, I GOT THE
LITTLE ONE.

THIS IS THE BIG ONE.

Kate: YEAH, EXACTLY.

[Pop captions down]

Leo: I GOT THE LITTLE ONE
FOR MY LITTLE DOG AND IT WORKS.

Kate: YEAH, IT'S GPS.

YOU CAN SET IT SO THAT

OBVIOUSLY THE PARAMETER OF YOUR HOUSE.

Leo: YEAH.

Kate: SO, THAT'S KIND OF COOL.

Leo: YEAH, YOU'LL KNOW WHEN
THE DOG'S GONE OUTSIDE.

Kate: YEAH, SO THIS IS RoamEO.

Leo: IT IS A LITTLE PRICEY.

Kate: YES, 500.

Leo: ALL OF THIS STUFF IS
PRICEY, BUT, YOU KNOW, PEOPLE
LOVE THEIR ANIMALS.

Kate: YEAH, BUT THIS IS
ACTUALLY THE CHEAPER ALTERNATIVE.

IF YOU HAVE A DOG WITH
ALLERGIES-- DOGS HAVE BECOME
MORE LIKE CHILDREN.

IF YOU HAVE A DOG WITH
ALLERGIES OR WITH, YOU KNOW,
ANY FORM OF, LIKE, SKIN
COMPLAINT, THIS IS --

Leo: "ACHEW."

Kate: -- (laughing) THIS IS A BLANKET.
IT'S CALLED THE INVISIBLE BLANKET.
THE IDEA IS IS THAT IT HAS A --
BASICALLY ANY KIND OF POROUS,
LIKE MOLDS, PARTICLES.

Leo: IT ALL GOES RIGHT THROUGH IT.

Kate: YEAH, IT DOESN'T STAY ON HERE.

Leo: IT DOESN'T STORE THE DANDER.

[Pop captions up]

Kate: SO, BASICALLY THE IDEA
IS IS YOUR DOG STAYS NICE AND
CLEAN AND FRESH.

Leo: MAYBE NOT JUST FOR THE
DOG HAS ALLERGIES.
MAYBE YOU HAVE ALLERGIES TO THE
DOG DANDER.

[Pop captions down]

Kate: THAT'S ANOTHER GOOD
POINT, BUT THEN I FIND THAT
VACUUMING HELPS JUST AS WELL.

Leo: "ACHEW."

ARE YOU ALLERGIC?

Kate: NO, I'M NOT.

NO, I'M NOT.

Leo: SO, WHY DON'T YOU HAVE A CAT?

Kate: I LIVE WITH SOMEBODY
WHO IS ALLERGIC TO CATS.

Leo: AH-HA, SEE, "ACHEW."

Kate: YES.

Leo: YOU SHOULD PUT HIM IN THERE.

Kate: EXACTLY.

Leo: "ACHEW."

Kate: AND LET HIM DRINK OUT OF THIS.

Leo: HE COULD SLEEP WITH
THIS AND HE'D HAVE A LITTLE
COLLAR; HE'D BE VERY COMFORTABLE.
HAS THE CAT-- CAN THE CAT GET IN YET?

Kate: (laughing)

Leo: (meowing)

Kate: STILL WAITING.

IT'S A PATIENT CAT.

Leo: IF YOU WANT MORE ON
ALL-- LET ME IN.

IF YOU WANT MORE ON ALL OF
THESE PRODUCTS, WHERE DO WE

HAVE THE INFORMATION?

[Pop captions up]

Kate: AT labwithleo.com

UNDER THE SHOW NOTES FOR THIS SHOW.

Leo: LET ME IN.

Kate: (laughing)

Leo: ALL RIGHT.

NOW, LET'S TAKE A CLOSE-UP LOOK

AT SOMETHING - LET ME IN -

YOU'D FIND AROUND THE HOUSE

AND -- ACTUALLY, AROUND THE LAB

AND FIND OUT WHAT THAT IS.

IT'S NOT GONNA WORK, DON'T KEEP TRYIN'.

WHAT IS THAT?

I, I CAN'T TELL.

I CAN'T TELL WHAT THAT IS.

IT LOOKS LIKE WRITING.

IT LOOKS LIKE UPSIDE DOWN E-L.

IT'S JARELS SPACE CAPSULE, I DON'T KNOW.

THINK ABOUT IT.

WE'LL FIND OUT WHEN

"THE LAB"CONTINUES.

STAY RIGHT HERE.

[BLACK/COMMERCIAL]

[Pop captions down]

Leo Laporte: WELCOME BACK TO "THE LAB."

BEFORE THE BREAK WE SHOWED YOU

THIS CLOSE-UP OF SOMETHING.

I-- BOY, IT LOOKS LIKE WRITING.

WHAT IS IT?

LET'S ZOOM OUT AND FIND OUT.

[Pop captions up]

Leo: IT'S A PlayStation 3.

I SHOULD HAVE KNOWN THAT!

THAT ONE WAS OBVIOUS, OHH.

[Pop captions down]

Leo: THANK YOU.

SEAN CARRUTHERS TAKES THOSE
PICTURES WITH HIS SUPER-DUPER
MACRO LENS.

NOW, KATE ABRAHAM, LET'S GET
ANOTHER CALL ON THE AIR HERE.

Kate: THIS IS GEOFF AND HE
IS FROM NAKINA IN ONTARIO.

Leo: HEY!

THANK YOU, KATE.

HEY, GEOFF, HOW ARE YA?

[Pop captions up]

Geoff: I'M GOOD, FINE, HOW
ARE YOU?

Leo: WONDERFUL.

WELCOME TO THE SHOW --

Geoff: THANK YOU.

Leo: -- AND WHAT CAN I DO
FOR YOU TODAY?

Geoff: WELL, I HAVE A NEW iPod touch.
YOU CAN SEE IT RIGHT THERE.

Leo: HOW DO YOU LIKE IT?

[Pop captions down]

Geoff: I REALLY LIKE IT, BUT
I'M FINDING YOU CAN'T GET
ANYTHING IN CANADA OFF OF
iTunes, SO WHAT'S THE EASIEST
WAY-- I HAVE A DVD HARD DRIVE
RECORDER AT HOME AND I CAN
WATCH SHOWS AND I LIKE TO

RECORD THEM, BUT I'D ALSO LIKE
TO PUT THEM ON MY iPod touch.
I WANT TO KNOW WHAT'S THE
EASIEST, QUICKEST WAY YOU CAN
DO THAT?

Leo: YEAH, THAT'S A LITTLE TRICKY.

THE GOOD NEWS IS THE iTunes
STORE IN CANADA DOES NOW SELL
TV SHOWS.

NOT A LOT OF THEM, BUT THEY'RE
STARTING TO SELL TV SHOWS AND I
THINK THEY'LL START TO SELL
VIDEO IN TIME.

IT'S JUST A QUESTION OF DOING
THE DEALS OBVIOUSLY WITH THE
TELEVISION COMPANIES AND THE
MOVIE COMPANIES, BUT THERE'S
"SOUTH PARK."

THERE'S A FEW THINGS.
YOU KNOW, THE COMEDY CENTRAL STUFF.

Geoff: THE THING I'M REALLY
INTERESTED IN, LIKE, I LIKE
MOVIES, LIKE LATEST MOVIES.

Leo: YEAH.
SO, YOU'VE GOT IT RECORDED ON YOUR DVR.
NOW, THE PROBLEM IS THE MOVIE
INDUSTRY DOESN'T WANT YOU TO
PULL THEM OFF THAT DVR.
THEY WANT TO KEEP THOSE --

Geoff: RIGHT.

Leo: -- ON THE DVR.
SO, THERE IS NO EASY WAY.

[Pop captions up]

Leo: WHAT YOU'D LIKE TO DO,
I MEAN, LOOK, THEY'RE DIGITAL
ON THAT HARD DRIVE, WOULDN'T IT
BE COOL IF YOU COULD SOMEHOW
TRANSFER IT OVER TO THE iPod MAGICALLY.

Geoff: I HEARD TiVo DOES IT.

Leo: TiVo ToGo DOES IT BUT
WITH SOME LIMITATIONS.

[Pop captions down]

Leo: IN-- WHAT KIND DO YOU HAVE?

Geoff: I DON'T HAVE A TiVo.

I JUST HAVE A DVD HARD DRIVE.

Leo: YEAH.

OH, OKAY, SO IT'S OWN JUST DVR?

Geoff: YEAH,

(indiscernible).

Leo: (talking over caller)

PROBABLY THE EASIEST-- THERE'S

TWO WAYS TO DO IT.

YOU'RE GOING TO TAKE

ADVANTAGE-- YOU COULD TAKE

ADVANTAGE OF THE ANALOG HOLE.

YOU KNOW, ALL OF THESE THINGS

HAVE SOME SORT OF ANALOG OUTPUT

SO YOU CAN HOOK UP A TV TO THEM.

SO, Mac OR Windows?

Geoff: I USE A Mac.

Leo: OKAY.

SO, elgato MAKES A NUMBER OF

VIDEO CAPTURE DEVICES THAT YOU

COULD USE TO CAPTURE THE VIDEO

OFF THE DVR AS YOU PLAY IT BACK.

SO, YOU'D HAVE TO QUE UP YOUR

SHOW, PRESS PLAY, START
RECORDING AND THAT WOULD GET IT
ON THE HARD DRIVE AND THEN
YOU'D CONVERT IT TO USE ON THE iPod.

[Pop captions up]

Leo: ANOTHER WAY TO DO IT
WOULD BE TO TAKE-- THESE ARE
THE VARIOUS elgato.
THESE ARE Apple SPECIFIC VIDEO
CAPTURE DEVICES.

Geoff: YES.

[Pop captions down]

Leo: THE OTHER WAY TO DO IT,
WHICH MIGHT EVEN BE A LITTLE
BIT EASIER, AT LEAST IT WOULD
BE FASTER, WOULD BE TO BURN THE DVD.
SO, YOUR DVR DOES RECORD TO
DVD, RIGHT?

Geoff: YES, IT DOES AND I'VE DONE THAT.

Leo: AND SO CAN YOU RIP THE
DVD ON YOUR Mac?

Geoff: YEAH, BUT I'VE HAD TO
USE Instant HandBrake.

Leo: YEAH, HandBrake NOW HAS
A iPod SETTING IF YOU GET THE
LATEST ONE.

Geoff: YES, I'VE GOT IT.

Leo: OKAY.
SO, IT WILL AUTOMATICALLY
CONVERT IT TO A FORM THAT THE
iPod CAN SEE, RIGHT?

Geoff: YES, AND IT ACTUALLY
WORKS PRETTY GOOD.

Leo: THAT'S ABOUT IT.

(laughing)

THAT-- YOU KNOW, YOU'RE GOING TO HAVE TO RIP IT FROM THE DVD. THERE'S NO COPY PROTECTION BECAUSE YOU MADE IT YOURSELF, SO YOU DON'T NEED HandBrake, BUT YOU DO NEED SOME SORT OF DVD RIPPING DEVICE.

AND THEN YOU NEED TO CONVERT THOSE INTO A FORMAT THAT THE Mac CAN USE.

THERE'S ANOTHER PROGRAM.

IF YOU-- YOU KNOW, FOR INSTANCE, I DOWNLOAD VIDEO FROM THE INTERNET OFTEN AND I'LL USE A PROGRAM CALLED VisualHub, WHICH IS A WONDERFUL PROGRAM.

Geoff: I THINK I HAD THAT TOO.

I TRIED THAT ALSO.

Leo: YEAH.

AND THAT WILL DO THE SAME THING, IT'LL TAKE THESE FORMAT, VARIOUS FORMATS, AVI, DivX, YOU KNOW, QuickTime MOVIES AND CONVERT IT TO A FORM THAT THE iPod NEEDS.

THE iPod NEEDS A VERY SPECIFIC MPEG-4 FORM AND A CERTAIN FILE SIZE AND A CERTAIN FRAME RATE AND ALL THAT STUFF.

IT TAKES H.264 OR MPEG-4.

Geoff: YES.

Leo: SO, YOU HAVE TO CONVERT
TO THOSE FORMATS.
AND THAT'S -- YOU KNOW,
THAT'S -- THERE'S NO WAY AROUND THAT.
YOU CAN'T JUST WATCH A DivX
MOVIE ON THE iPod touch.

[Pop captions up]

Geoff: OKAY, I THINK THAT'S VERY HELPFUL.
AND I HAVE ONE MORE QUESTION
ABOUT THE iPod --

Leo: SURE.

Geoff: -- AND THE iPhone.
I'VE HEARD THAT THE iPhone HAS
A LITTLE BIT BETTER RESOLUTION.
IS THAT REALLY TRUE?

[Pop captions down]

Leo: I'VE HEARD THAT TOO AND
I DON'T SEE IT.
I THINK THE RESOLUTION IS THE SAME.
I THINK SOME PEOPLE WERE SAYING
THAT THE iPod touch SCREEN IS NOT AS GOOD.
I THINK--

Geoff: I THINK IT'S PRETTY GOOD.

Leo: I THINK IT'S PRETTY
DARN GOOD, YEAH.
I HAVE AN iPhone.
AND WHEN I LOOK AT THE iPod
touch THAT SEAN HAS-- WELL,
ACTUALLY, LET ME ASK SEAN,
HE'S GOT BOTH.
touch OR Phone, SAME SCREEN,
DIFFERENT SCREEN, ONE'S BETTER
THAN THE OTHER?

Sean: I THINK THE iPhone
SCREEN IS A TOUCH BETTER.

Leo: A TOUCH?

Sean: A TOUCH BETTER, IF
YOU'LL EXCUSE THE PUN.

Leo: HOW MUCH IS A TOUCH?

Sean: THE TOUCH IS--

Leo: IS THE RESOLUTION THE
SAME OR IS IT--?

Sean: I BELIEVE THE
RESOLUTION IS THE SAME.

Leo: YEAH.

IT'S JUST A BETTER SCREEN.

Sean: THE COMPLAINT IS THAT
IT'S A BIT DULLER.

Leo: YEAH.

Sean: YOU KNOW, I'VE NEVER
NOTICED IT LOOKING AT THE touch
DIRECTLY, BUT.

Leo: NO.

Sean: I MEAN IF YOU PUT THEM
SIDE BY SIDE, YOU WOULD, BUT IF
YOU'RE HAPPY WITH THE touch,
THEN YOU'RE FINE.

Leo: SO, LET'S NOT--

Geoff: IT DOES HAVE 16
GIGABYTES ALSO, SO THERE'S MORE
HARD DRIVE.

Leo: THERE YOU GO.

SO, LET'S NOT TELL GEOFF THAT
IT LOOKS BETTER BECAUSE HE'LL--
YOU KNOW, IF YOU DON'T LOOK AT
THEM CLO-- (laughing) IT'S FINE.

YOU KNOW --

Geoff: NO, I'M HAPPY WITH THIS.

Leo: -- I THINK THE touch LOOKS GREAT.

I THINK THOSE ARE REALLY
BEAUTIFUL SCREENS.

I THINK THEY'RE THE BEST
SCREENS I'VE SEEN IN A PORTABLE
UNIT, SO I WOULDN'T COMPLAIN.

AND IF THERE IS A DIFFERENCE,
IT'S VERY, VERY MINOR.

Geoff: YEAH, THAT'S FINE.

Leo: GREAT, GEOFF, THANKS
FOR CALLING.

Geoff: THANK YOU FOR THE INFORMATION.

Leo: A COUPLE OF GREAT
PROGRAMS, HandBrake, WE
MENTIONED THAT LAST CALL,
VisualHub REALLY USEFUL FOR
CONVERTING THESE FILES TO
FORMATS THAT THE touch OR THE
Phone OR ANY OF THESE PORTABLE
DEVICES CAN USE.

NOW, SEAN IS HERE WITH A SHINY.

Sean: IT'S ANOTHER PORTABLE DEVICE.

Leo: IT'S GOT THE Motorola LOGO ON IT.

Sean: YEAH.

SPEAKING OF THE iPhone, THIS IS
Motorola'S NEW ENTRY INTO THE
SMARTPHONE CATEGORY.

Leo: OOH.

[Pop captions up]

Sean: IT'S THEIR REVISION OF
THE Q CALLED THE Q9h.

Leo: THE NEW Q.

Sean: RIGHT.

AND YOU CAN SEE, TAKING A LOOK
AT IT, THE FORM FACTOR IS A
LITTLE BIT DIFFERENT.
IT'S GOT DIFFERENT CONTROLS ON IT.

Leo: UH-HUH.

Sean: ONE OF THE BIG
COMPLAINTS ABOUT THE Q IS THAT
IT WAS JUST HARD TO USE.

Leo: HARD TO USE, YEAH.

Sean Carruthers: AND THERE
WERE SOME REALLY CRAZY
USABILITY ISSUES, LIKE NOT
BEING ABLE TO CHANGE THE VOLUME
OF THE RINGING FROM THE PHONE ITSELF.
YOU'D HAVE TO GO INTO THE MENU SYSTEM --

Leo: RIGHT.

Sean: -- THAT SORT OF THING.

[Pop captions down]

Sean: A LOT OF THAT HAS BEEN
ADDRESSED ON THIS ONE.

Leo: SO, THEY'VE GOT BUTTONS
ON THE SIDE NOW.

Sean: YOU'VE GOT VOLUME BUTTONS.
YOU CAN ACTUALLY MUTE IT WHILE
IT'S RINGING, ALL OF THAT OTHER STUFF.

Leo: THIS IS A GOOD CONTROL ARRAY.
IT LOOKS LIKE IT'S PRETTY EASY
TO GET THE THINGS DONE YOU WANT.

Sean: RIGHT.

YEAH, SO YOU'VE GOT SOME
Windows CONTROLS UP TOP AND WEB

CONTROLS AND ALONG THE BOTTOM
YOU HAVE THINGS FOR -- OR
BUTTONS FOR THINGS LIKE FOR
YOUR CAMERA AND --

Leo: CAMERA AND ALL THAT, YEAH.

Sean: -- FOR YOUR CALENDAR
AND ALL OF THAT.

SO, IT'S USING Windows Mobile
6, WHICH IS BOTH GOOD AND BAD.

Leo: (laughing)

Sean: THE GOOD IS THAT IT
INTEGRATES WELL WITH YOUR
Windows SETUP.

YOU CAN SYNC IT WITH Outlook
AND ALL THAT OTHER GOOD STUFF.

Leo: RIGHT.

Sean: THE BAD NEWS IS THAT
IT'S Windows 6 AND IT--

Leo: (laughing) I'M NOT TOO
CRAZY ABOUT IT, TO BE HONEST
WITH YOU.

Sean: BRINGING Windows TO A
PHONE, FORM FACTOR LIKE THAT, I
DON'T KNOW IF IT'S THE RIGHT
MOVE OVERALL.

Leo: RIGHT.

Sean: A LOT OF PEOPLE SEEM
TO LIKE IT.

SO, IF YOU LIKE Windows ON
THAT, IT'S ON THERE.

Leo: AND IF YOU USE Windows
AND YOU NEED TO, FOR INSTANCE,
TO DO THINGS LIKE LOOK AT WORD

PROCESSING DOCUMENTS, THAT KIND
OF THING, THIS IS USEFUL.

Sean: YEAH.

Leo: SO, LET'S LOOK AT THE
PROS AND THE CONS.

Sean: SURE.

Leo: THE SHINIES AND THE
DULLS, AS YOU WOULD SAY.

[Pop captions up]

Sean: WELL, IT DOES RUN ON
Windows Mobile 6, WHICH IS GOOD
IF YOU LIKE THAT.
IT HAS A 2 MEGAPIXEL CAMERA IN
THE BACK AS WELL.
WE DIDN'T SHOW THAT, BUT IT'S THERE.
IT HAS AN EXPANSION CARD SLOT,
ONE OF THE MINI CARD SLOTS.
SO, YOU CAN ACTUALLY TAKE IN
AND OFF -- ON AND OFF THE PHONE.
AND A LOT OF THE USABILITY
ISSUES THAT WERE ON THE
ORIGINAL VERSION HAVE BEEN
FIXED UP.

BAD IS IT RUNS ON Windows Mobile 6.

Leo: (laughing)

Sean: I REALLY DON'T LIKE--

Leo: THAT'S A PRO AND A CON.

Sean: I DON'T LIKE THAT AS
AN OPERATING SYSTEM.

I MUCH PREFER BlackBerry.

Leo: NOW, IT LOOKS LIKE IT USES USB --

Sean: YEAH.

Leo: -- BUT IT'S NOT.

IT'S KIND OF A SPECIAL...

Sean: YEAH, IT'S A
PROPRIETARY CONNECTOR --

Leo: THAT'S TOO BAD.

Sean: -- FOR BOTH CONNECTION
TO THE PC AND FOR THE CHARGING.

Leo: NO REASON TO DO THAT.

[Pop captions down]

Sean: AND I HATE HOW ALL OF
THESE COMPANIES ARE
BACKTRACKING.

THEY WERE GETTING SO GOOD.

Leo: YEAH, GO TO USB.

Sean: YEAH.

Leo: WE DON'T WANT THIS, YEAH.

ALL RIGHT, THERE YOU GO, THE Q9h.

IT'S AN IMPROVEMENT.

IT'S A LITTLE BIGGER, BUT IT'S AN IMPROVEMENT.

Sean: I LIKE IT A LOT BETTER.

Leo: YEAH.

Sean: NOT ENOUGH TO SWITCH.

Leo: THANK YOU, SEAN.

ALL RIGHT, WE'RE GOING TO TAKE
A BREAK, COME BACK IN JUST A
LITTLE BIT WITH MORE OF YOUR
CALLS, BUT FIRST IT'S TIME FOR
OUR QUICK QUIZ QUESTION OF THE DAY.

WHICH OF THE FOLLOWING IS NOT A
VALID TOP-LEVEL DOMAIN?

YOU KNOW, LIKE .com, .net, .ca.

WHICH OF THESE IS NOT LEGAL,

.gw, .jg, .kz, .pf?

OR FOR EXTRA CREDIT TELL US

WHAT THE THREE LEGAL ONES STAND FOR.

MMM, WE'LL TELL YOU WHEN

"THE LAB"CONTINUES A LITTLE LATER ON.

[Music]

[BLACK/COMMERCIAL]

[Pop captions down]

(Theme music playing)

Leo Laporte: WELCOME BACK TO "THE LAB."

I'M LEO LAPORTE.

WE'RE GOING TO TALK A LITTLE

BIT ABOUT BIOFEEDBACK AND

TELEMEDICINE RIGHT NOW WITH

DIDIER COMBATALADE.

HE IS THE RESEARCH MANAGER AT

Thought Technology AND HE IS ON

Skype WITH US.

WHERE ARE YOU, DIDIER?

[Pop captions up]

Didier Combatalade: I'M IN MONTREAL, LEO.

Leo: THIS IS GREAT.

SO, WE'RE GOING TO-- THIS IS

TELETV. (laughing)

Didier: INDEED, YES.

Leo: AND YOU'RE GOING TO

CONTROL ME VIA REMOTE CONTROL

OVER THE INTERNET USING SOME OF

THESE TELEMEDICINE EQUIPMENT WE

HAVE HERE, RIGHT?

[Pop captions down]

Didier: WELL, OUR EQUIPMENT

IS BIOFEEDBACK EQUIPMENT.

WE'RE USING STANDARD INTERNET

TECHNOLOGY LIKE Skype AND

GoToMeeting IN ORDER TO TAKE
CONTROL OF THE OTHER PERSON'S COMPUTER.
Leo: SO, I'M RUNNING THE SOFTWARE LOCALLY.
THIS IS THE BioGraph INFINITI
SOFTWARE FROM THOUGHT TECHNOLOGY.

Didier: THAT'S RIGHT.

[Pop captions up]

Leo: AND YOU'RE ABLE TO,
USING GoToMeeting, CONTROL IT
AND WATCH WHAT'S HAPPENING TO
ME AND ALL THAT STUFF?

Didier: YES.

Leo: OKAY.

Didier: YOU SHOULD HAVE A
COUPLE OF SENSORS HOOKED UP ON YOURSELF.

[Pop captions down]

Leo: I DON'T YET, BUT SHALL
I? SHALL I HOOK THEM UP?

Didier: WELL, YOU CAN.
EITHER THAT OR BRING IN RYAN.

Leo: I'LL DO IT, I'M BRAVE.
SO, WE'VE GOT FINGER SENSORS.
I'M JUST GOING TO ATTACH THOSE
TO MY FINGERTIPS.

WHAT DO THESE MEASURE?

Didier: THAT'S THE SKIN
CONDUCTANCE SENSOR.
IT'S MEASURING HOW SWEATY YOUR
PALMS ARE.

Leo: (laughing) ISN'T THIS
WHAT A LIE DETECTOR USES?

Didier: YEAH, SAME THING, SAME IDEA.

Leo: GALVANIC SKIN RESPONSE,

SOMETHING LIKE THAT.

Didier: RESPONSE, YES.

Leo: SO, I'VE GOT IT HOOKED
UP NOW TO MY FINGERTIPS AND...

Didier: AND THE OTHER ONE IS
ELECTROMYOGRAPHY, WHICH IS
MUSCLE TENSION, MUSCLE ACTIVITY.

Leo: OH, THAT'S INTERESTING.
SO, WHERE SHOULD I -- WHERE
SHOULD I PUT THAT?

Didier: WELL, DEPENDS WHAT
YOU'RE GOING TO DO WITH IT, BUT
FOR RELAXATION PURPOSES, STRESS
CONTROL, WHICH IS WHAT
BIOFEEDBACK IS MOSTLY USED FOR --

Leo: MM-HMM.

Didier: -- PUT IT ON YOUR
SHOULDER MUSCLES OR EVEN YOUR
ARM MUSCLE.

Leo: I'LL TRY MY-- I'LL PUT
IT ON A BICEP THEN, SOMETHING
LIKE THAT?

Didier: YEAH, YEAH.

Leo: NOW, SHOULD I GLUE IT IN THERE?
I'LL TELL YOU WHAT, I'LL HOLD
IT IN PLACE.
THAT'LL DO, SINCE I DON'T WANT
TO GLUE IT IN TOO HARD.

Didier: YEAH.

Leo: OKAY.

Didier: WELL, ACTUALLY THERE
IS A LITTLE STICKY PAD WHICH WE
WOULD USE TO APPLY THE SENSOR

ONTO THE PERSON'S BACK, FOR EXAMPLE.

Leo: ALL RIGHT.

WELL, I'LL --

Didier: BUT YOU DON'T HAVE TO DO THAT.

Leo: I'LL JUST PUT IT RIGHT HERE.

WE'LL SEE HOW THAT WORKS.

NOW WHAT?

[Pop captions up]

Didier: WELL, NOW YOU HAVE
THE ProComp 2 Encoder, WHICH IS
THE DIGITIZER, THIS LITTLE
DEVICE THAT SAMPLES THE
PHYSIOLOGY FROM THE SENSORS
THAT ARE HOOKED UP ONTO YOU AND
IS SENDING THE INFORMATION
THROUGH FIBEROPTIC THROUGH THE --

Leo: WOW.

Didier: -- USB SOCKET INSIDE
YOUR COMPUTER AND BASICALLY
BioGraph WILL GET IN TOUCH WITH
THE ProComp 2 Encoder IF IT'S TURNED ON.

[Pop captions down]

Leo: SO, THIS IS -- THIS
TT-USB IS CONVERTING THE
FIBEROPTIC DATA COMING FROM THE
ProComp 2 TO USB WHICH THEN THE
COMPUTER CAN READ.

YEAH, LET ME SEE IF MY
ProComp 2 IS TURNED ON.

YES, IT'S TURNED ON.

Didier: ALL RIGHT.

SO, NOW WE'RE GOING TO START
WHAT WE CALL AN OPEN DISPLAY

SESSION WHICH ALLOWS YOU TO
LOAD THE NUMBER OF SCREENS,
VIEWING SCREENS, DISPLAY SCREENS.

Leo: NOW, SOMEBODY COULD DO
THIS AT HOME THEMSELVES, BUT --

Didier: SURE.

Leo: -- BUT THEY'D HAVE TO
KNOW A LITTLE BIT ABOUT
BIOFEEDBACK TO DO THAT.

Didier: YES, YES.

Leo: SO, THE IDEA IS A
SPECIALIST CAN BE SOMEWHERE
ELSE, IN MONTREAL, FOR
INSTANCE, AND RUN THIS WHOLE
SESSION REMOTELY.

Didier: EXACTLY.

Leo: ALL RIGHT, DOC.

Didier: WE HAVE A NUMBER OF
CLINICIANS WHO DO THAT.

Leo: OKAY.

I'M READY.

Didier: I'M STARTING THE
OPEN DISPLAY SESSION.
WE HAVE YOU AS A CLIENT ENTERED
RIGHT HERE --

Leo: RIGHT.

Didier: -- LEO LAPORTE.
THESE ARE THE TWO SESSIONS WE
ALREADY RAN.
I'M GOING TO JUST CLICK Start
AND DO EXACTLY THE SAME THING
WE DID LAST TIME.

Leo: SO, THIS WILL MONITOR

MY HEART RATE AND MY MUSCLE RELAXATION.

Didier: YES.

Leo: OKAY.

[Pop captions up]

Didier: SO, RIGHT NOW I'M
GOING TO CLICK Start TO RECORD.

[Pop captions down]

Didier: AND THIS GREEN LINE
RIGHT HERE IN THIS LITTLE GRAPH
SHOWS THAT MUSCLE TENSION.
IF YOU CONTRACT THE MUSCLE --

Leo: OH, LOOK AT THAT.

Didier: -- IT SHOULD GO UP.
THERE YOU GO.

Leo: OH, MY GOODNESS.
OH, THIS-- I WISH I HAD THIS AT
THE GYM, "RRR!"

Didier: (laughing) YES.
DON'T GET A CRAMP NOW.

Leo: (laughing) LOOK AT THAT.
SO, THAT'S JUST CONTRACTING THE MUSCLE.
IS IT MEASURING ELECTRICAL
ACTIVITY, IS THAT WHAT'S GOING ON?

Didier: YES.
YES, THE MORE MUSCLE FIBERS GET
INVOLVED WITH THE CONTRACTION,
THE MORE ELECTRICITY IS
GENERATED AND WE PICK THAT UP
FROM THE SURFACE OF THE SKIN.

Leo: "RRR!" OKAY.

Didier: YEAH.

Leo: HEY, THAT'S REALLY COOL.

Didier: IT IS.

Leo: NOW, WHAT WOULD YOU USE THAT FOR?

Didier: WELL, MOST OF THE TIME IT'S FOR RELAXATION, BUT THERE IS A LOT OF EMG BEING USED, ELECTROMYOGRAPHY BEING USED FOR REHABILITATION.

Leo: SO, YOU COULD BE A PHYSICAL THERAPIST, FOR INSTANCE, AND SAY, OKAY, NOW LET'S GET TO LEVEL 300 HERE OR SOMETHING LIKE THAT.

[Pop captions up]

Didier: WELL, YEAH, THAT. THAT AND IF YOU MONITOR MULTIPLE MUSCLES, WE COULD BE CONTROLLING THE SEQUENCE OF FIRING OF THOSE MUSCLES.

Leo: AH, INTERESTING. NOW, HOW WOULD YOU USE THIS FOR RELAXATION?

Didier: WELL, RELAXATION. YOU SEE THAT LITTLE NUMBER HERE --

Leo: YEAH.

Didier: -- IT'S 10. IF YOU RELAX, THE NUMBER WILL GO LOWER AND LOWER. NOW, I'M GOING TO SWITCH TO ANOTHER DISPLAY SCREEN BY CLICKING ON A BUTTON UP HERE - AND HERE.

THIS IS EMG.
THIS IS MUSCLE ACTIVITY.

Leo: OKAY.

Didier: THIS IS SKIN CONDUCTANCE.

Leo: OKAY.

Didier: MAKE A LITTLE BIT OF
A CONTRACTION WITH YOUR MUSCLE HERE.

I'M GOING TO RISE THAT
THRESHOLD RIGHT HERE.

AND IF YOU CAN RELAX (software
music playing) AND MAKE THAT
GREEN BAR GO BELOW THRESHOLD,
YOU SHOULD HEAR MUSIC.

IT'S KIND OF LOUD RIGHT NOW, I GUESS.

Leo: SO, I'M TRYING TO RELAX
ENOUGH SO THAT I HEAR THE MUSIC.

Didier: GET BELOW THAT THRESHOLD, YES.

Leo: IF I HEAR THE MUSIC, I'M RELAXED.

Didier: YES.

(Theme music playing) NOW,
HERE'S ANOTHER SCREEN.
HOLD ON A SEC, THIS IS IT. YES.

Leo: NOW I'M HAPPY, SO IT'S PLAYING MUSIC --

Didier: YES.

Leo: -- WHEN I'M RELAXED.
AND IF I GET REALLY TENSE AND
ANGRY AND EVERYTHING AND GET
REALLY EXCITED... OH, WOW,
THAT'S COOL.

Didier: EXACTLY, YES.

AND THE THING IS THAT BioGraph
IS A MULTIMEDIA BIOFEEDBACK
APPLICATION, SO WE CAN PLAY MP3
FILES, WE CAN PLAY MIDI SONGS,
WE CAN PLAY A DVD.

[Pop captions down]

Leo: YEAH, IT'S PLAYING OUR
THEME SONG RIGHT NOW.

(laughing)

Didier: YES.

I GOT THAT ON YOUR WEBSITE.

Leo: SO, THIS COULD ACTUALLY
BE USED BY SOMEBODY TO KIND OF
TRAIN THEMSELVES TO RELAX, HUH?

Didier: EXACTLY, EXCEPT THAT
OF COURSE THIS SYSTEM IS
MEDICAL GRADE, SO WE SELL IT TO CLINICIANS.

Leo: YEAH.

NOT A HOME USER, YEAH.

Didier: THAT'S RIGHT, IT'S
NOT A CONSUMER PRODUCT.

Leo: I USED SOMETHING LAST
NIGHT THAT YOU SENT ME THAT WAS
A CONSUMER PRODUCT.

Didier: YES.

[Pop captions up]

Leo: I JUST PUT MY FINGERS
ON IT AND IT PLAYED A TONE AND
I TELL YOU WHAT, I PUT MYSELF
TO SLEEP BY GETTING THAT TONE
LOWER AND LOWER AND LOWER.

Didier: EXCELLENT.

Leo: IT REALLY WORKED.
IT WAS QUITE AMAZING.
AND, IN FACT, IT'S FUNNY
BECAUSE YOU CAN'T THINK
YOURSELF RELAXED, BUT SOMEHOW
HAVING THAT AUDIO FEEDBACK YOU

COULD JUST THINK I WANT THE
TONE TO LOWER AND IT DOES.

Didier: EXACTLY.

THAT'S THE WHOLE BUSINESS WITH
BIOFEEDBACK.

YOU CANNOT WARM UP YOUR
FINGERS, BUT IF I HAVE A
TEMPERATURE SENSOR HOOKED ONTO
YOUR FINGERS I COULD TELL YOU
TO RAISE THE BAR ON THE GRAPH
AND THAT SOMEHOW YOUR BRAIN
FIGURES THAT OUT.

[Pop captions down]

Leo: IT'S THE AUTONOMIC
NERVOUS SYSTEM AND YET YOU DO
HAVE SOME CONTROL OVER WHAT
IT'S DOING.

Didier: EXACTLY.

Leo: AND SO YOU FIND THAT IF
SOMEBODY IS ABLE TO GET THEIR
HAPPY FACE SMILING (software
music plays and stops) AND
PLAYING THE MUSIC THAT -- THAT
THEY'RE PRETTY RELAXED?

[Pop captions up]

Didier: IT'S A MATTER OF PRACTICE.
YOU SEE, BIOFEEDBACK IS ABOUT
LEARNING INTERNAL STRATEGIES
THAT GET YOUR PHYSIOLOGY TO
RESPOND PROPERLY.

Leo: MM-HMM.

Didier: AND GENERALLY IT'S
ABOUT PEOPLE WHO DON'T RESPOND PROPERLY.

PEOPLE WHO GET STRESSED AND
STAY STRESSED --

Leo: RIGHT.

Didier: -- ARE UNDER A LOT
MORE WEAR AND TEAR THAN PEOPLE
WHO CAN RELAX BELOW THE
THRESHOLD LEVEL.

Leo: RIGHT.

[Pop captions down]

Didier: SO, TRAINING HOW TO
DO THAT IS EXPANDING YOUR
FLEXIBILITY, PHYSIOLOGICAL FLEXIBILITY.

Leo: WOULD YOU SAY-- NOW,
YOU'VE LOWERED MY THRESHOLD TO
ZERO, THAT'S NOT FAIR.

Didier: NOW YOU CAN'T DO THAT.

Both: (laughing)

Leo: WOULD YOU SAY THOUGH
THAT 3 IS FAIRLY RELAXED?

Didier: A VERY RELAXED
PERSON CAN GET WAY BELOW 1.

Leo: REALLY?

Didier: 4.5 MICROSIEMENS, YES.

Leo: WELL, I'M GOING TO NEED
TO LIE DOWN IF I'M GOING TO GET
THAT LOW. (laughing)

Didier: YES, YES.

Leo: DIDIER, THIS IS
FASCINATING AND IT'S REALLY
INTERESTING TO SEE HOW THIS IS
USED REMOTELY THANKS TO THE INTERNET.
THIS IS NOT INEXPENSIVE, I
WOULD IMAGINE, SINCE IT'S

INTENDED FOR CLINICIANS.

Didier: YES, GENERALLY THIS SYSTEM YOU'VE GOT IS ABOUT \$2,000.

Leo: BUT THAT'S NOT -- NOT TERRIBLE WHEN IT COMES TO MEDICAL EQUIPMENT.

Didier: WELL, THIS IS 2 CHANNELS. WE HAVE AN 8 CHANNEL AND A 10 CHANNEL DEVICE.

Leo: WOW.

Didier: WE CAN MEASURE A WHOLE LOT OF OTHER THINGS.

Leo: AND WHAT KIND OF CLINICIANS WOULD USE THIS?

Didier: GENERALLY PSYCHOLOGISTS --

Leo: RIGHT.

Didier: -- BUT AN AWFUL LOT OF PHYSIOTHERAPISTS, LIKE WE TALKED ABOUT EARLIER, FOR MUSCLE CONTROL. NURSES WITH INCONTINENCE TREATMENT.

Leo: OH, HOW INTERESTING.

Didier: YES, BECAUSE INCONTINENCE IS OFTEN BECAUSE PEOPLE FORGOT TO CONTROL, HOW TO CONTROL THAT MUSCLE.

Leo: RIGHT.

Didier: YEAH.

Leo: I WON'T ASK WHERE YOU STRAP THIS THING, BUT.

Didier: NO, THAT'S RIGHT, DON'T.

Leo: I GET THE ID-- I GET THE GIST OF IT.

WELL, THAT'S RIGHT, THAT'S
REALLY INTERESTING.

I THINK THIS IS REALLY A GREAT
USE OF THE INTERNET AND NOW I
KNOW I NEED TO RELAX A LITTLE
BIT MORE WHEN I'M DOING THE
SHOW. (laughing)

Didier: YES, RELAX, ENJOY.

Leo: DIDIER COMBATALADE IS
THE RESEARCH MANAGER AT Thought
Technology AND HE HAS BEEN
DOING THIS FOR A LONG TIME.

[Pop captions up]

Leo: IF YOU WANT TO LEARN
MORE, YOU CAN GO TO mindgrowth.com.

Didier: AND thoughttechnology.com.

Leo: AND THANK YOU SO MUCH
FOR JOINING US ON THE SHOW.
IT'S JUST FASCINATING.

Didier: YOU'RE QUITE WELCOME.
BYE-BYE.

Leo: THANKS, DIDIER.

Didier: YOU'RE WELCOME.
BYE, LEO.

Leo: TAKE CARE.
COMING UP, MORE OF YOUR-- I
FEEL VERY RELAXED, VERY CALM,
BUT I DO HAVE TO RUN TO THE BATHROOM.
WE'LL BE BACK RIGHT AFTER THIS.
YOU STAY RIGHT HERE.

[Music]

[BLACK/COMMERCIAL]

[Pop captions down]

(Theme music playing)

Kate Abraham: WELCOME BACK TO "THE LAB WITH LEO."

I'M KATE ABRAHAM, AND NOW IT'S

TIME FOR MY TIP OF THE DAY.

NOW, IF YOU'RE SOMEBODY WHO

USES Wikipedia A LOT AND YOU'RE

NOT TOO SURE ABOUT THE VALIDITY

OF THE INFORMATION ON THERE,

AFTER ALL IT IS A WIKI, CHECK

OUT uncylopedia.com.

IT'S A REALLY COOL SITE.

IT'S COMPLETE AND UTTER NONSENSE.

[Pop captions up]

Kate: THEY CLAIM THEY'RE

COMPLETELY CONTENT FREE, BUT

IT'S A GREAT WAY TO WASTE AN

AFTERNOON BECAUSE IT'S JUST AS

INTRICATE AS Wikipedia, BUT THE

INFORMATION IS COMPLETELY IRRELEVANT.

SO, FOR INSTANCE, THEY EVEN

HAVE A FEATURED ARTICLE TODAY

ON DONNER, THE REINDEER.

COMPLETE NONSENSE, uncylopedia.org.

[Pop captions down]

Leo: (laughing) IT'S THE

OPPOSITE OF AN ENCYCLOPEDIA.

Kate: COMPLETELY-- THE THING

IS THE -- SEE, WITH Wikipedia,

PEOPLE RELY ON IT A LOT FOR THE INFORMATION.

Leo: RIGHT.

Kate: BUT OBVIOUSLY IT'S A

WIKI, IT CAN -- YOU KNOW, THE

INFORMATION DOESN'T HA--

Leo: IT'S PRETTY RELIABLE.

I THINK uncylopedia IS FUNNY THOUGH.

Kate: YEAH, IT'S GREAT FUN.

Leo: IT'S A FUN-- YEAH.

Kate: IT'S REALLY GOOD FUN.

Leo: (laughing)

Kate: I'VE WASTED A FEW
HOURS ON HERE.

Leo: ALL RIGHT, LET'S GET
ANOTHER CALLER ON HERE.
WHO DO YOU HAVE FOR ME?

Kate: WE'RE GOING TO PARIS,
TEXAS, AND WE HAVE BEN.

Leo: THANK YOU, KATE.

Kate: THANK YOU.

Leo: HELLO, BEN.

Ben: HI, LEO.

Leo: HOW ARE THINGS IN PARIS?

Ben: UH, PRETTY GOOD.

KIND OF COLD.

Leo: KIND OF COLD?

WHAT'S COLD IN PARIS, TEXAS,
FEEL LIKE?

Ben: UH, I GUESS 30.

(laughing)

Leo: YEAH, OH.

THAT IS PRETTY COLD ACTUALLY,
YEAH, YEAH.

Ben: WELL, TODAY IT'S
ACTUALLY NOT THAT COLD, BUT, YEAH.

Leo: THAT'S CHILLY.

SO, YOU'VE GOT SOME FROST.

WHAT CAN I DO-- BY THE WAY,

30 FAHRENHEIT, WHICH WOULD BE A
LITTLE BIT BELOW ZERO CELSIUS.
WHAT CAN I DO FOR YOU, ROB
[sic]?

Ben: WELL, I HAVE A Mac mini
THAT'S SET UP AS MY MEDIA CENTRE.
I HAVE Tekzilla BEHIND ME.

Leo: OH, LOOK AT THAT,
THERE'S MY GOOD BUDDY PATRICK
NORTON AND JESSICA CORBIN.

[Pop captions up]

Ben: AND I HAVE IT ON A
Sharp AQUOS 32-INCH LCD SCREEN.

Leo: UH-HUH.

Ben: IT'S BEEN REALLY NICE.

Leo: THAT LOOKS GREAT.

[Pop captions down]

Ben: AND MY ISSUE IS I HAVE
A COMPUTER ABOUT 60 FEET AWAY
FROM HERE AND I'M DOING ALL
THIS THROUGH WIRELESS
NETWORKING ON A Linksys ROUTER
THAT I LOADED THE Tomato
FIRMWARE ON.

Leo: OKAY, THAT'S THE
BitTorrent SOFTWARE, YEAH.

Ben: YEAH.

AND I'M JUST HAVING SOME ISSUES
WITH Remote Desktop.
I WANT IT TO BE FASTER.
IT JUST KIND OF-- IT LAGS ON ME SOME.

[Pop captions up]

Leo: SO, WHAT YOU'RE USING

TO DISPLAY THIS IS Remote Desktop?

Ben: RIGHT, I'M TRYING TO

Remote Desktop INTO IT.

I'VE TRIED, LIKE, Chicken of the VNC.

AND I'VE TRIED Timbuktu ON THE

Mac mini, AND I'M KIND OF--

Leo: SO, THERE'S A

COMPUTER-- I'M STILL NOT

UNDERSTANDING THE TOPOLOGY.

THERE IS A COMPUTER HOOKED UP

TO THIS Sharp?

Ben: RIGHT, I HAVE A Mac

mini HOOKED UP RIGHT BELOW THE Sharp.

Leo: AND YOU WANT TO CONTROL

IT FROM THE OTHER ROOM?

Ben: RIGHT, I WANT TO

CONTROL IT FROM MY ROOM THAT'S

ABOUT (indiscernible).

Leo: (talking over caller)

OR ACTUALLY VICE VERSA.

YOU'D LIKE TO USE THE mini TO

GET STUFF PLAYING OFF YOUR

COMPUTER IN THE OTHER ROOM.

Ben: WELL, WHAT I WANT TO

DO, I WANT TO USE MY mini AS

KIND OF LIKE A COMPUTER

WHENEVER I'M NOT IN HERE.

Leo: I GET IT.

Ben: BECAUSE I USE THE MEDIA

CENTRE WHEN I'M IN HERE, BUT I

WANT (indiscernible).

Leo: I GET IT.

WELL, YOU KNOW, TRUTHFULLY, THE

BEST WAY TO DO THIS WOULD BE TO
UPGRADE TO Leopard.

HAVE YOU DONE THAT YET?

BEN: YES, I AM ON Leopard --

Leo: OH.

Ben: -- RIGHT NOW ACTUALLY.

Leo: THEN IT'S A SIMPLE THING.

YOU JUST HAVE TO TURN ON Sharing.

Ben: MM-HMM.

Leo: SO, LET'S GO TO THE

System Preferences AND UNDER

THE Sharing PREFERENCE PANE YOU

HAVE TO TURN ON Screen Sharing.

JUST CHECK THAT.

Ben: RIGHT.

Leo: AND THEN WHEN YOU BOOT

UP YOUR COMPUTER IN THE OTHER

ROOM, YOU'LL SEE THE mini IN

THE SHARED COMPUTERS.

YOU SEE I SEE RIGHT NOW SEAN'S MacBook.

AND I CAN PRESS - NOW, WATCH

THIS, THIS IS SO COOL – Share Screen.

I'LL HAVE TO HAVE AN ACCOUNT ON

HERE AND LOGIN.

THIS ACTUALLY IS COMPATIBLE

WITH VNC.

YOU WERE USING Chicken of the

VNC, WHICH IS A VNC CLIENT --

Ben: RIGHT.

Leo: -- BUT IT'S Ap-- BUT

IT'S ACTUALLY A STRIPPED DOWN

VERSION OF Apple's Remote

Desktop CLIENT, WHICH IS

ACTUALLY I THINK MUCH FASTER,
SO I THINK YOU'LL GET BETTER
PERFORMANCE IF YOU USE THE
DESKTOP SHARING.

Ben: BUT DOES IT WORK FASTER
THAN WHAT THEY HAD IN Tiger OR?

Leo: OH, MUCH.

Ben: YEAH?

Leo: WELL, UNLESS YOU HAD
THE FULL Apple Remote Desktop.
SEAN, I CAN'T GET IN.

IS THERE SOMETHING GOIN' ON?

Ben: UM, I DIDN'T THINK YOU
COULD-- I THOUGHT WITH THE FULL
Apple Desktop YOU COULDN'T GET
INTO IT USING Windows, BUT YOU CAN?

Leo: USE-- OH, YOU WANT TO
USE Windows TO GET INTO IT?

Ben: RIGHT, I'M ON Windows
ON THE OTHER SIDE. (laughing)

Leo: "OHHH."

I MISSED THAT LITTLE PART.

Ben: RIGHT.

Leo: YEAH, YOU NEED-- NOW,
WELL, YOU'RE USING A VNC CLIENT
ON Windows.

THAT WILL WORK WITH THE DESKTOP
SHARING IN Leopard, YES.

Ben: OKAY.

Leo: AND I THINK IT WOULD
STILL BE BETTER BECAUSE THE
SPEED IS DEPENDENT ON THE
SERVER, NOT THE CLIENT.

Ben: RIGHT.

Leo: IT'S ALSO DEPENDENT ON
THE NETWORK AND YOU'RE USING A
WIRELESS NETWORK TO DO THIS --

Ben: RIGHT.

Leo: -- SO THERE MAY BE SOME
BANDWIDTH LIMITATIONS, ALTHOUGH
IT SHOULD BE FAST ENOUGH.

Ben: (indiscernible)
MAYBE IF I WAS ON WIRELESS IN
I'D GET BETTER FRAME RATE.

Leo: YEAH, YOU PROBABLY WOULD.
I MEAN, WHAT'S THE PLAYBACK
LOOKING LIKE?

Ben: IT'S JUST KIND OF
JAGGY, ESPECIALLY WHEN I USE,
LIKE, THE WAVE DOCK AT THE BOTTOM.
WHENEVER IT MOVES, IT'S JUST
YOU CAN REALLY TELL THAT--

Leo: THAT MIGHT BE THE mini.
THAT MAY JUST MERELY BE-- IF
DOING OTHER THINGS ON THAT
COMPUTER IS SLOWING IT DOWN,
IT'S PROBABLY BECAUSE THE mini
DOESN'T HAVE ENOUGH PROCESSING
POWER TO KEEP DOING BOTH.
REMEMBER, IT'S NOW NOT ONLY
PLAYING BACK VIDEO, IT'S ALSO
SHARING IT, AND THEN YOU WENT
DOWN AND YOU OPENED -- AND YOU
OPENED UP THE TOOL-- THE DOCK,
AND THEN, BOOM, IT'S DOING
ANOTHER THING.

PRETTY SOON IT'S GOING TO START
TO BOG IT DOWN.
THE mini IS NOT A SUPER-FAST
COMPUTER, SO I SUSPECT THAT
MIGHT ALSO BE THE PROBLEM.
BUT I THINK YOU'RE -- IF YOU'RE
USING VNC ON THE Windows
MACHINE AND YOU'RE USING THE
SHARING CLIENT IN Leopard,
WHICH IS A STRIPPED DOWN
VERSION OF THE Apple Remote
Desktop, I THINK YOU'RE
PROBABLY GETTING THE BEST
THROUGHPUT YOU'RE GOING TO GET,
SO YOU WANT TO LOOK AT OTHER
FEATURES, LIKE A FASTER
COMPUTER AND A FASTER BANDWIDTH
TO IMPROVE THAT.
YOU'RE NOT GOING TO GET
ANYTHING FASTER AS FAR AS THE
SOFTWARE YOU'RE RUNNING IS GOING.
OKAY?

Ben: ALL RIGHT. OKAY.

Leo: I WANT TO RECOMMEND "Mac OS X Hints."
ROB GRIFFITHS WROTE A GREAT
ARTICLE ABOUT ADDING MORE POWER
TO Leopard'S SCREEN SHARING.
IT'S A SIMPLE COMMAND LINE YOU
CAN -- TWO COMMAND LINES YOU
CAN DO IN THE TERMINAL THAT
WILL ACTUALLY MAKE THIS SO MUCH
MORE USABLE, HIGHLY RECOMMEND IT.
DOESN'T MAKE IT FASTER, BUT IT

IS REALLY A NICE FEATURE, ADDS
SOME BUTTONS AND SO FORTH.

THAT'S IN "OS X Hints"

AND WE'LL PUT A LINK IN THE
SHOW NOTES FOR YOU FOR THAT.

[Pop captions up]

Leo: COMING UP IN JUST A BIT, FRANK LINHARES.

HE IS OUR HACKER OF THE DAY AND

HE IS GOING TO SHOW US HOW TO

BUILD AN MP3 PLAYER AMPLIFIER

THAT FITS INSIDE AN ALTOIDS TIN.

MAKE IT YOURSELF FOR CHEAP.

BUT FIRST, ONE MORE CHANCE TO

TAKE OUR QUICK QUIZ QUESTION OF

THE DAY.

[Pop captions down]

Leo: WHICH OF THE FOLLOWING

IS NOT A VALID TOP-LEVEL DOMAIN?

IS IT .gw, .jg, .kz OR .pf?

I DON'T KNOW!

GO TO THE WEBSITE, GIVE US THE ANSWER.

WE'LL TALK ABOUT IT WHEN "THE LAB" CONTINUES.

[Music]

[BLACK/COMMERCIAL]

[Pop captions down]

Leo Laporte: WELCOME BACK TO "THE LAB."

BEFORE THE BREAK WE ASKED YOU

WHICH OF THE FOLLOWING IS NOT A

VALID TOP-LEVEL DOMAIN?

I KNOW .kz IS-- I DON'T KNOW

WHAT ANY OF THOSE ARE.

WHICH IS IT?

Guinea-Bissau, Kazakhstan AND French Polynesia.

.jg IS NOT REAL.

THAT WAS REALLY HARD.

(laughing)

Frank: NO IDEA.

Leo: DID YOU KNOW ANY OF THOSE?

Frank: NO CLUE WHATSOEVER.

Leo: THAT WAS REALLY, REALLY HARD.

EVERY COUNTRY GETS ITS OWN TWO

LETTER TOP-LEVEL DOMAIN.

Frank: RIGHT.

Leo: .ca FOR CANADA, .au FOR

AUSTRALIA, .us FOR THE U.S.,

BUT THOSE WERE SOME OBSCURE --

Frank: THAT I HAD NO CLUE.

Leo: (laughing) THOSE ARE

SOME OBSCURE ONES.

Frank: NO CLUE WHATSOEVER.

Leo: YOU KNOW, IT COULD BE

VERY VALUABLE.

THE LITTLE, MINI ISLAND NATION

OF TUVALU, WHICH ONLY HAS A FEW

HUNDRED PEOPLE ON IT, IS .tv --

Frank: THAT'S RIGHT.

Leo: -- AND THEY MAKE A LOT

OF MONEY ON THE DOT--

Frank: HUGE SOURCE OF INCOME

FROM PEOPLE LIKE US.

Leo: I PAY THEM A LOT OF

MONEY, YOU DO.

Frank: MM-HMM.

Leo: FRANK IS THE CO-HOST

AND PRODUCER OF

digitalunderground. --

Both: tv.

Frank: YES.

Leo: I'M twit.tv, SO WE'RE
BOTH PAYING MONEY TO THE TUVALU TREASURY.
HE'S GOING TO SHOW US HOW TO
GET A BUS TO THE CUSTOMS.
NO, I'M SORRY.

Frank: NO, NO, NO.

Leo: HE'S GOING TO SHOW US
HOW TO MAKE AN AMP --

Frank: I GOT THROUGH WITHOUT
A PROBLEM TODAY.

Leo: -- THAT WILL FIT IN AN ALTOIDS TIN.
YOU DID?
JUST WALKED--

Frank: I DID.

I TOOK IT OUT, I SAID, LOOK,
SEE, THERE'S NO PLASTIC
EXPLOSIVES, NO NOTHING.

[Pop captions up]

Leo: SEE, NOTHING'S GONNA --
NOTHING'S GOING TO BLOW UP.
SO, WHAT ARE WE-- NOW, FIRST OF
ALL WHY?

Frank: A LOT OF PEOPLE HAVE
COMPLAINED-- ACTUALLY, I WAS
HAVING A CONVERSATION TODAY
HERE WITH ONE OF THE GUYS ON
THE SET ABOUT HOW HIS LITTLE
shuffle WASN'T POWERFUL ENOUGH
FOR HIS HEADPHONES.

[Pop captions down]

Leo: IT'S FINE FOR THE

EARBUDS IT COMES WITH --

Frank: IT IS.

Leo: -- BUT THOSE ARE LOUSY HEADPHONES.

Frank: THEY'RE HORRIBLE.

Leo: IF YOU WANT TO USE
BETTER HEADPHONES --

Frank: THAT'S RIGHT.

Leo: -- YOU NEED MORE POWER.

Frank: THAT'S RIGHT, YOU
NEED MORE POWER.

[Pop captions up]

Frank: AND THIS IS A TRIED,
TESTED AND TRUE ELECTRONICS
PROJECT THAT A LOT OF FIRST
YEAR ELECTRONIC STUDENTS LEARN
HOW TO MAKE AND IT'S JUST A
SMALL AMPLIFIER.
IT IS A REALLY TINY, TINY AMPLIFIER.

[Pop captions down]

Leo: HOW MUCH IN PARTS DID
YOU SPEND HERE?

Frank: I SPENT ABOUT \$5.50 IN PARTS.

Leo: AND A COUPLE OF BUCKS
FOR AN ALTOIDS TIN.

Frank: ACTUALLY, THE ALTOIDS
TIN WAS ALMOST \$5.

Leo: THAT WAS THE MOST--

Both: THAT WAS THE MOST EXPENSIVE PART.

Leo: OF THE WHOLE THING.

Frank: EXACTLY.

Leo: SO, YOU DON'T HAVE TO
PUT IT IN AN ALTOIDS TIN.

Frank: YOU DON'T HAVE TO PUT

IT IN AN ALTOIDS.

YOU CAN PUT IT IN ANYTHING YOU WANT.

Leo: OKAY.

Frank: I JUST--

Leo: I'D PROBABLY PUT IT IN
SOMETHING THAT'S NOT METALLIC.

Frank: YEAH, UNLESS YOU'RE
GOING TO INSULATE THE BOTTOM.

Leo: YEAH, YOU HAVE TO PUT
SOME ELECTRICAL TAPE IN THERE.

Frank: THAT'S RIGHT, JUST TO
INSULATE THE BOTTOM.

Leo: OKAY.

Frank: BUT, UM, SO I MEAN
IT'S REALLY SIMPLE TO BUILD.

YOU'RE GOING TO NEED A
BREADBOARD, WHICH IS--

Leo: THIS IS CALLED A CMoy AMPLIFIER.

Frank: THAT'S RIGHT,
ORIGINALLY DESIGNED BY --

Leo: CHU MOY.

Frank: CHU MOY, THAT'S RIGHT.
HE -- IT WAS HIS INITIAL IDEA
TO BUILD THIS LITTLE AMPLIFIER
AND WE'RE TALKING YEARS AGO HE
DID THIS, AND THERE'S BEEN SO
MANY VARIATIONS OF THIS THING.

Leo: IS THE TRANSISTOR DOING
THE ACTUAL AMPLIFICATION?

Frank: NO, WHAT'S ACTUALLY
DOING THE AMPLIFICATION IS THE
OP-PREAMP CHIP, WHICH IS THAT.
IT'S REALLY HARD TO SEE, BUT

IT'S THIS RIGHT HERE.

Leo: THERE'S A LITTLE CHIP IN THERE.

Frank: ESSENTIALLY THERE'S
ONE RIGHT HERE --

Leo: YEAH.

Frank: -- OUT OF THIS
PACKAGING AND THAT IS THE HEART
AND SOUL OF THE WHOLE THING.

IT'S JUST A LITTLE
MICROCONTROLLER THAT ACTUALLY
CLEANS UP THE SIGNAL, AMPLIFIES
IT, DOES EVERYTHING.

Leo: OKAY.
BECAUSE THAT'S WHY TRANSISTORS WERE INVENTED.

Frank: THAT'S RIGHT.

Leo: THEY WERE TO TAKE OVER
VACUUM TUBES, BY THE WAY, 60
YEARS AGO ALMOST EXACTLY IN 1947.

Frank: YEAH, A COUPLE OF-- YEAH, YEAH.

Leo: YEAH.

Frank: SO, THAT IS THE HEART
AND SOUL OF IT.

Leo: THAT DOES ALL THE WORK.

Frank: THAT DOES ALL THE WORK.

Leo: I SEE THERE'S A COUPLE
OF CAPACITORS.

Frank: THAT'S RIGHT, YOU'VE
GOT A COUPLE OF CAPACITORS SO
THAT YOU CAN MAINTAIN A
CONSTANT POWER SOURCE --

Leo: OKAY.

Frank: -- RIGHT, IN CASE
YOUR BATTERY FLUCTUATES.

Leo: CHARGE, RIGHT, OKAY.

Frank: EXACTLY.

SOME RESISTORS.

AND THE RESISTORS ARE VERY KEY
BECAUSE YOU CAN CHANGE THEM
OUT, SWAP THEM OUT TO CHANGE
THE GAIN OF THE AMPLIFICATION.

Leo: AH, THAT'S HOW YOU TURN
IT UP OR DOWN.

Frank: THAT'S HOW YOU TURN
IT UP OR DOW--

Leo: WELL, YOU'VE GOT A POD ON IT.

Frank: I'VE GOT A POD.

I'VE GOT A POTENTION METER,
WHICH IS ESSENTIALLY A VARIABLE
RESISTOR, THAT'S REALLY ALL IT IS.

Leo: OKAY.

Frank: WHICH ALLOWS ME, BUT
IT ACTS AS A VOLUME CONTROL,
THAT'S WHAT IT IS.

Leo: AND YOU EVEN, THIS IS A
LITTLE FINESSE.

Frank: THAT'S JUST A
LITTLE-- JUST SO THAT I KNOW
WHAT'S GOING ON WITH THE ON/OFF
SWITCH, SO.

Leo: THAT'S A FINE FINESSE.
THIS USES A 9-VOLT CELL.

Frank: IT USES A 9-VOLT CELL
AND IT IS AMAZING AS TO HOW --

Leo: WHERE DO YOU GET THE
SCHEMATICS?

Frank: -- CRYSTAL CLEAR.

WE'LL HAVE THEM UP IN THE SHOW
NOTES, BUT I'VE GOT THEM HERE
RIGHT NOW.

Leo: OKAY.

Frank: AN ACTUAL TECHNICAL
LAYOUT IF YOU WANT TO --

Leo: AND ANY ELECTRONICS
STORE WILL HAVE THESE PARTS.
THEY'RE NOT HARD TO FIND.

Frank: ANYWHERE.

THEY'RE NOT. THEY'RE NOT.

I HAVE A PARTS LIST FOR
Digi-Key, WHICH IS MY FAVOURITE
SHOPPING PLACE.

Leo: AND YOU USE A LITTLE
BREADBOARD TO MAKE IT?
THAT'S A LITTLE EASIER, ISN'T IT?

Frank: IT'S A LOT EASIER.
I WAS THINKING ABOUT ACTUALLY
PRESSING OR ETCHING MY OWN
BOARD, BUT I THOUGHT YOU KNOW
WHAT, THIS IS A MUCH EASIER PROJECT.

Leo: YEAH.

Frank: I MEAN, I COULD
PROBABLY GET IT A LOT SMALLER.

Leo: YOU JUST THREAD THE
LITTLE LINES ON THE RESISTORS --

Frank: THAT'S RIGHT.

Leo: -- AND WHATEVER THROUGH
AND YOU PUT A LITTLE SOLDER ON THEM --

Frank: AND THAT'S IT.

Leo: -- AND THAT'S IT.

Frank: THERE'S ACTUAL-- THE

SCHEMATIC I HAVE ACTUALLY LAYS

OUT THE BREADBOARD.

IT'S REAL EASY TO DROP THE PARTS IN.

Leo: THIS WOULD BE A GREAT
PROJECT FOR A 15 YEAR OLD OR A
14 YEAR OLD WHO'S INTERESTED IN ELECTRONICS.

DO -- YOU KNOW, THE ADULTS
SHOULD WORK WITH THEM BECAUSE
YOU DO USE A SOLDERING IRON.

Frank: YOU DO, YEAH, BUT
THERE'S -- THERE'S NOTHING--

Leo: AND NOW LET'S HEAR IT.
DOES IT WORK?

Frank: OH, YEAH.

Leo: IS IT A PRETTY CLEAN AMP?

Frank: IT IS ACTUALLY
SURPRISINGLY QUITE CLEAN.

Leo: YEAH.

HOW MUCH POWER ARE WE GOING TO
GET HERE?

Frank: WE'RE GOING TO GET
ABOUT 25 WATTS OF POWER.

Leo: REALLY?

Frank: YEAH.

Leo: HOLY CAMOLY.

OH, IT SAYS TWiT AND IT'S--
OKAY, THAT'S LOUD.

Frank: IS IT LOUD?

Leo: YOU CAN HEAR IT.
LOOK AT THAT, WOW.

Frank: AND YET IT'S STILL
QUITE A CLEAN SIGNAL.

Leo: OH, YEAH.

IT SOUNDS BETTER THAN IT DOES
IN MY HEADPHONES AT WORK.

Frank: YEAH, IT'S A VERY
CLEAN SIGNAL.

Leo: THAT'S EXCELLENT.

Frank: BUT IT'S GREAT IF
YOU'VE GOT A LITTLE SET OF
DESKTOP SPEAKERS --

Leo: WOW.

Frank: -- YOU WANT TO...

Leo: THAT IS REALLY COOL.
AND IT ALL FITS IN AN ALTOIDS
TIN OR SOMETHING SIMILARLY SIZED.

Frank: SOMETHING SMALLER IF YOU WANT.

Leo: YEAH.

YEAH, YOU COULD SEE.

Frank: I HAVE THIS THING
WITH ALTOIDS.

Leo: (laughing) IF YOU CAN'T
PUT IT IN AN ALTOIDS TIN.

Frank: I PUT ALL SORTS OF
ELECTRONIC PROJECTS IN THEM.

Leo: AND Digi-Key IS A GOOD
SOURCE IF YOU'RE CANADIAN FOR
THESE PARTS, d-i-g-i DASH k-e-y.ca.

Frank: OR .com IN THE U.S.

Leo: OH, THEY HAVE THEM IN THE U.S.?

Frank: OH, YEAH, AND THEY'VE
GOT THEM IN THE U.K. AS WELL
TOO, I BELIEVE, SO.

Leo: OH, ALL RIGHT, Digi-Key.

Frank: THAT'S RIGHT, Digi-Key.
THAT'S JUST A CANADIAN SITE SO

YOU DON'T PAY CUSTOMS CHARGES.

[Pop captions up]

Leo: FIND THIS GUY AT digitalunderground.tv.

HE DOES ALL THIS STUFF AND IT'S
REALLY COOL AND I'M SO GLAD YOU
COME ON THE SHOW WITH US.

ALL THE WAY FROM TORONTO --

Frank: ALL THE WAY.

Leo: -- TO SHOW US THIS FUN STUFF.
AND NOW THEY KNOW YOU AT THE
TORONTO AIRPORT.

[Pop captions down]

Frank: YEAH, SO THEY JUST,
AH, LET HIM THROUGH.

Leo: THEY GO, AH, FRANK --

Frank: HE'S FINE, IT WON'T EXPLODE.

Leo: -- ANOTHER ALTOID THING.

Frank: HE'S GOOD.

Leo: THANKS FOR JOINING US, FRANK.

Frank: NO PROBLEM.

Leo: I REALLY APPRECIATE IT.

WE'RE GOING TO TAKE A BREAK AND
HAVE SOME FINAL WORDS RIGHT
AFTER THIS.

YOU STAY RIGHT HERE.

[Music]

[BLACK/COMMERCIAL]

[Pop captions down]

(Theme music playing)

Leo Laporte: WELCOME BACK TO "THE LAB."

WE GOT THE SCREEN SHARING WORKING.

SO, I AM ACTUALLY CONTROLLING

SEAN'S COMPUTER OVER THERE FROM

MY COMPUTER HERE.

IN FACT, WATCH, I CAN DRAG--
THIS IS KIND OF NEAT, IT'S SUCH
A WIDE WINDOW BECAUSE YOU'RE
USING TWO SCREENS.

Sean: YES.

Leo: SO IF I DRAG THIS
WINDOW HERE, WATCH, IT'S GOING
TO MOVE OVER ON HIS SCREEN THERE.
I CAN CONTROL IT FROM HERE.
ISN'T THAT-- OOH, IT'S KIND OF SPOOKY.
I DID THIS WITH MY KIDS THE OTHER DAY.
THEY WERE IN-- I WAS IN THE
BEDROOM AND THEY WERE IN THE
LIVING-ROOM AND I HAD THE
COMPUTER START TALKING TO THEM
AND I THINK IT REALLY
(laughing) SPOOKED 'EM.
I DID THAT THING WHERE I TYPED
INTO STICKIES.

[Pop captions up]

Kate: THAT'S MEAN.

Leo: I TYPED-- AND I TYPED
"HELP, LET ME OUT," AND I HAD
THE COMPUTER SAY THAT.

Kate: THAT'S MEAN.

Leo: AND THERE'S NO ONE IN
THE ROOM WITH THEM.
THE COMPUTER'S OVER THERE AND
IT JUST STARTS TALKING TO 'EM.

Kate: THAT'S EVIL.

Leo: AND THEN THEY GO, "DAD,
YOU'RE SUCH A DORK."

Kate: (laughing)

Leo: THEY KNEW IT WAS ME!

Kate: WHY WOULD THEY KNOW?

Leo: THEY KNEW!

IT'S FUN TO PLAY WITH THOUGH.

Kate: ABSOLUTELY.

Leo: AND IT'S REALLY PRETTY SPEEDY.

Kate: MM-HMM.

Leo: I DON'T KNOW HOW IT IS

GOING FROM Windows TO Mac, BUT

FROM Mac TO Mac EVEN OVER THE

INTERNET IT'S SURPRISINGLY SPEEDY.

IT'S A NICE TECHNOLOGY --

Kate: COOL.

Leo: -- TO BUILD INTO A

COMPUTER, I THINK.

HEY, WE WOULD LIKE TO GET YOU
ON THE SHOW.

HOPE YOU HAD SOME FUN TODAY.

HOPE YOU LEARNED SOMETHING.

IF YOU WANT TO COME BACK AND
ACTUALLY ASK A QUESTION, YOU
CAN DO THAT, RIGHT?

[Pop captions up]

Kate: ABSOLUTELY,

labwithleo.com/techquestions.

IF YOU SUBMIT YOUR QUESTION

THERE, I'LL GET YOU ON THE

PHONE, WE'LL BOOK YOU IN FOR A

GOOD TIME SLOT THAT SUITS YOU,

GET YOU ON THE SHOW, SOLVE YOUR PROBLEMS.

Leo: FOR A GOOD TIME SLOT CALL KATE.

Kate: ABSOLUTELY.

Leo: YEAH.

Both: (laughing)

Kate: LOADS TO CHOOSE FROM.

Leo: labwithleo.com/techquestions.

THERE'S LOTS OF GREAT STUFF ON
THERE, INCLUDING ALL OUR GUEST
SEGMENTS, KATE'S BLOG --

Kate: ABSOLUTELY.

Leo: -- SEAN'S BLOG, RYAN'S
BLOG, AND OF COURSE JEWELS AND
SO FORTH.

Kate: YEAH.

Leo: THANKS FOR JOINING US.
WE'LL SEE YOU NEXT TIME --

Kate: BYE-BYE.

Leo: -- ON "THE LAB."

BYE-BYE.

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[Pop captions down]