

# Shmooganography 2015

## 10 years of steg

Clever reference to  
the contest theme.



Who figured it out?

Team Hammer & Brothers

# 8 teams this year

Team	Codes Found	Discovered Code Word Theme
Team Hammer&nbsp;Brothers	1 2 3 4 5	YES
Calvin & Hobbes	1 2 3 4 5	YES
Team [insert team name here]	1 2 3 4 5	NO
xDelta	1 2 3 4 5	NO
Moosey Fate	1 2 3 4 5	NO
Crimson Agents	1 2 3 4 5	NO
Team Danger	1 2 3 4 5	NO
Team dream	1 2 3 4 5	NO

# Stage One: SPENGLER

## Stargate barcode scanning

- Overtly, just a description of the contest
- Code word is first character of each sentence
- Clue is hidden in `<span>` tags on the conference site's paragraph.

Shmooganography is back for  
Praxis Engineering is once  
Every year we use various  
Navigate the contest's first  
Grab your proton packs, ecto  
Log your progress by email  
Enter into the competition  
Remember that not seeing

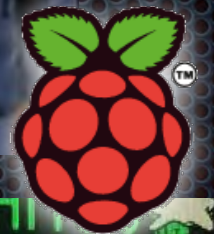
!#lookingforghosts #shmoobusters

code word and a clue for the next stage; be the first with all five  
code words and their common theme to win. `<span class="Dr. Venkman  
used the PKE Meter to detect what he could not see."></span>`Grab  
your proton packs, ecto goggles and other low/high tech hacking

# Stage Two: TULLEY

## “Remote controlled” Twitter feed

- Yes, TULLEY is like our British friends’ telly, but that’s not the technique; though clever, since...
- Use hotel room TV remote to enter Ghostbusters phone number
- Triggers a new “tweet” in the feed with the clue and codeword



# Stage Three: MELNITZ

We're not infecting your USB with warez

- Raspberry Pi with camera, LCD and USB cable
- Plug in USB thumb, get a steg'd picture of yourself (using *steghide*)
- Creepy Slimer picture has codeword
- Show Slimer to camera, get clue (sometimes)



# Stage Four: KING Kill It 'N' Go – Ghostbusters!

- “Radiation leak” at the Containment Unit
- FM transmitter at 107.1MHz provides clue and catchy Ghostbusters theme



Yep, he's in the movie,  
as is Ron Jeremy!

# Stage Five: BARRETT

## Who doesn't want an Ecto-1?

- Crafted MJPEG stream with an added ASCII byte at the end of each JPEG frame



Great job. Did you find the connection between the code words? BARRETT???

```
0003660: 0051 4514 0051 4514 0051 4514 0051 4514 .QE..QE..QE..QE.
0003670: 0051 4514 0051 4514 0051 4514 0051 4514 .QE..QE..QE..QE.
0003680: 01ff d947 3134 3537 30ff d8ff e000 104a ...G14570.....J
0003690: 4649 4600 0102 0000 0100 0100 00ff fe00 FIF.....
00036a0: 104c 6176 6335 362e 3133 2e31 3030 00ff .Lqvc56.13.100..
00036b0: db00 4300 0808 0809 0809 0b0b 0b0b 0b0b ..C.....
00036c0: 0d0c 0d0d 0d0d 0d0d 0d0d 0d0d 0d0e 0e0e .....
```



What was the theme?  
GB characters with glasses



Very Special Thanks



for their generous sponsorship,  
covering our expenses, materials,  
shirts and prize!

# Special Thanks

- Sony (and others), for being distracted by *The Interview* and not suing us for lifting this *Ghostbusters* goodness
- Adafruit, for selling those sweet Raspberry Pi parts
- steghide, for free image steganography
- Python, for answering our con' scripting prayers
- Our Understanding Wives, for tolerating our annual hiatus
- Bruce & Heidi, for tolerating our endless shenanigans

[shmooganography@gmail.com](mailto:shmooganography@gmail.com)

Presentation will be available on  
the contest website soon.