

## FRAK: Programmatic Firmware Manipulation For Non-Masochists\*

\*Masochists Welcomed

## **Authors**:

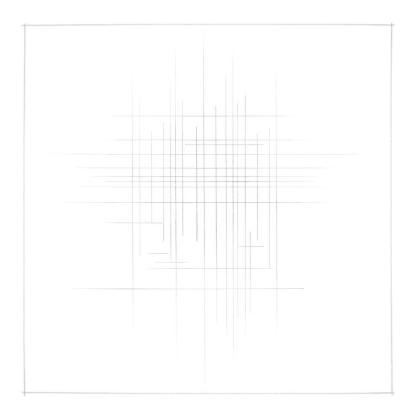
Dr. Ang Cui, Dr. Nathaniel Boggs, Jatin Kataria, Chris Evans, Shakeeb Ahmed, Joseph Pantoga, Rick Housley and Daniel Pesce

## Dr. Ang Cui

Chief Scientist, Red Balloon Security ang@redballoonsecurity.com

"To the past, or to the future. To an age when firmware is transparent. From the age of the DMCA, from the age of the tyrannous embedded device vendor, from a de-obfuscator of the secret sauce... greetings!"

-0xAC





## FRAK Appliance Training

Title	FRAK Appliance Training
Version	1.07
Technical Point of Contact	Name: Dr. Ang Cui
	Title: Chief Scientist, Red Balloon Security
	<b>Telephone:</b> (917) 259-1057
	Email: ang@redballoonsecurity.com
	<b>Fax:</b> (509) 352-6884
	336 West 37th St. Suite 1024
	New York, NY 10018-4212
<b>Administrative Point of Contact</b>	Name: Calvin Chu
	Title: Chief Operating Officer
	<b>Telephone:</b> (917) 259-1057
	Email: calvin@redballoonsecurity.com
	<b>Fax:</b> (509) 352-6884
	336 West 37th St. Suite 1024
	New York, NY 10018-4212