

# **noghostrobot**



# **field guide vol.2**

**GHOST ROBOTICS & THE DEADLY EXCHANGE:  
PPD, KKK, IOF They're All the Same!**

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## TABLE OF CONTENTS

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Ghost Robotics is responsible for violence in Gaza, on the US-Mexico border, and here at home in Philadelphia. These Field Guides are designed to help you learn more. Once you learn to spot death merchants, their “innovations,” and the displacement, state violence, and border violence they’re implicated in, you’ll be better equipped to stop them.

For even more info, or to get connected, visit [www.noghostrobot.info](http://www.noghostrobot.info).

## GHOST ROBOTICS & THE DEADLY EXCHANGE:

PPD, KKK, IOF They’re All The Same!

GHOST ROBOTICS .....	1-3
THE DEADLY EXCHANGE.....	4
INTERTWINED HISTORIES.....	5
DIGGING DEEPER.....	6
SUCCESSFUL CAMPAIGNS .....	7
WHAT’S NEXT, DOGCATCHER? .....	8

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## GUIDELINES/AGREEMENTS

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### **We keep us safe.**

- Mask up when not eating or drinking.
- No photos, audio, or video recording.
- Tonight everyone’s name is friend, neighbor, comrade, etc.
- Our safety team folks are here for you / here for us all.
- Take care of you. Take breaks as you need to.

### **Palestine will be free.**

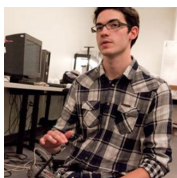
#### **Palestine will free us all.**

- Palestinian liberation is inextricable from our collective liberation.
- This is not a space for debate on this fact. Instead, our focus is on Ghost Robotics and its complicity in the violence of genocide and displacement.

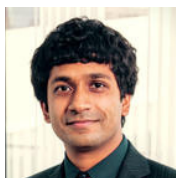
# GHOST ROBOTICS

## What is Ghost Robotics?

Ghost Robotics is a company that develops and manufactures AI-assisted, weaponized robotic dogs, which cost approximately \$165,000 each. It was founded in 2015 at the University of Pennsylvania by two Penn engineering students, Gavin Kenneally (*Bad Dog 1.1*), who serves as the current CEO and Avik De (*Bad Dog 1.2*), who serves as the Chief Technology Officer, as well as Jiren Parikh (deceased), who was serving as the CEO at the time of his death in 2022. Their current executive team also includes Michael Subhan (*Bad Dog 1.3*), Chief Marketing Officer, and Matthew Joyner, Chief Revenue Officer.



**Bad Dog 1.1**



**Bad Dog 1.2**



**Bad Dog 1.3**

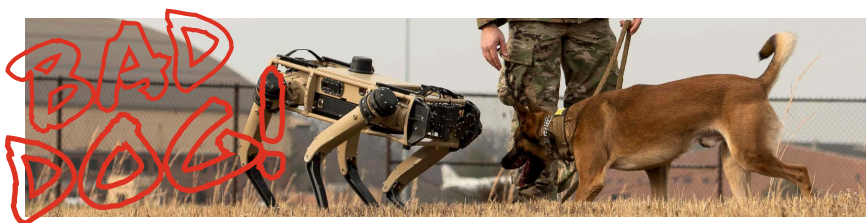
Ghost Robotics is headquartered at Pennovation Works, a Penn-developed property located at the corner of 34th St & Grays Ferry Ave. Pennovation Works is a 23-acre property that, in their words, is home to "state-of-the-art facilities, researchers, entrepreneurs, and industry partners solving real world problems and translating inventiveness into viable ventures," which is a pretty disingenuous way to describe manufacturing weapons of genocide and border violence.

Ghost Robotics received initial funding and support from Penn's PCI Ventures, which helps Penn faculty and staff commercialize their inventions and technologies. Ghost Robotics receives tax breaks through the Keystone Innovation Zone Tax Credit Program, which provides tax credits totaling up to \$15M annually to for-profit companies. Additionally, as has been lifted up in recent years through the [campaign to pressure Penn to pay PILOTS](#), the university, which serves as Ghost Robotics' landlord, does not pay property taxes.

In 2022, when six leading robotics companies signed onto an [open letter](#) pledging not to weaponize their technologies, Ghost Robotics notably refused. They have continued to court military contracts both domestically and internationally, and are "happy" to see their robots armed, in the words of their former CEO.

## What are robot dogs?

Robot dogs manufactured by Ghost Robotics are unmanned vehicles that can carry up to 22 pounds of material and withstand all terrain and weather conditions. Like walking drones, robot dogs both carry weaponry and act as tools of surveillance through built-in cameras and microphones. Armed with a submachine gun, Ghost Robotics' robot dogs are able to shoot up to a range of 1,200 meters.



## How do robot dogs work?

Ghost Robotics' dogs are AI-enabled and can also be controlled by remote operator. "Vision 60," the name for the robot dog model currently deployed in Gaza, is virtually indestructible. In Ghost Robotics' own words, "Even if the environment is completely unknown, vision sensors degrade or fail, you can be assured that when our legged robot does fail, slip or fall, it will get right back up and continue moving."

## Where are robot dogs being deployed?

Ghost Robotics' Vision 60 robot dogs are currently on the ground in Gaza, having been purchased by Israel for around \$150,000 per unit. Ghost Robotics is also under contract with the US Department of Homeland Security, which is testing the robot dogs for use along the US-Mexico border. Ghost Robotics has shipped over 450 robot dogs and works with over 25 "national security partners" around the world.

Ghost Robotics claims to be the biggest supplier of walking robots to the US and its allies.



# ~~GHOST ROBOTICS~~

## Ghost Robotics + Robotican

In February 2024, Robotican, an Israeli manufacturer of autonomous robots, and Ghost Robotics announced their collaboration and Robotican became the official distributor of Ghost Robotics' products in Israel.

Robotican proudly boasts on their website that the V60 robot can “neutralize charges and shoot.” Pictured below are the Robotican co-founders, Eli Ben-Aharon, Chairman (*Bad Dog 2.1*), Hagai Balshai, CEO (*Bad Dog 2.2*), and Dr. Yam Geva, CTO (*Bad Dog 2.3*).



**Bad Dog 2.1**



**Bad Dog 2.2**



**Bad Dog 2.3**

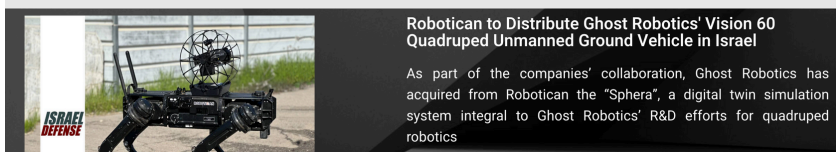
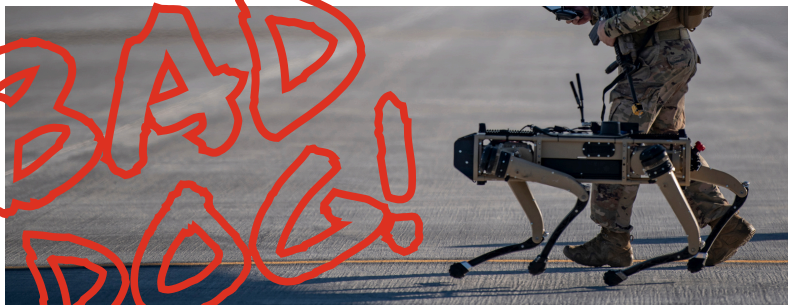


image from the Robotican website: <https://robotican.net/pressnews>

## Ghost Robotics Acquisition by LIG Nex1

In December 2023, Korean defense company LIG Nex1 announced their intent to acquire 60% of Ghost Robotics for \$240M; a private equity investor will own the remaining 40%. The acquisition is expected to be finalized this month, in June 2024.

**BAD DOG!**



# THE DEADLY EXCHANGE

## What is The Deadly Exchange?

The term “Deadly Exchange” refers to the convergence of US law enforcement and Israeli military and police forces for the purpose of establishing reciprocal tactics and technology. US law enforcement officials learn tactics from Israeli military personnel and the US sends billions of dollars in military aid to Israel, producing repression, surveillance, and state-sanctioned death in both regions.

## How is the exchange carried out?

According to Jewish Voice for Peace, which launched its campaign targeting the exchange in 2017, “thousands of US police officers, sheriffs, border patrol agents, ICE officers, and FBI agents have trained with Israeli military and police forces” since the early 2000s. These are explicit and coordinated trainings initiated by both the US and Israel, as well as private companies. Nonprofit organizations—including the Anti-Defamation League (ADL) and the Jewish Institute for National Security Affairs (JINSA)—play a role in facilitating these trainings.

## What does the US learn from Israeli trainings?

Upon their return, US law enforcement delegates implement practices learned from Israel’s use of invasive surveillance, blatant racial profiling, and repressive force against dissent. By encouraging the expansion of surveillance tactics and marking Black and Brown people—particularly Arabs and Muslims—as suspect, these programs facilitate an exchange of methods in state violence and control that endanger us all. In this way, the Deadly Exchange means not just swapping tactics and dollars, but also authoritarian ideologies.

## Why does the US partner with Israel specifically?

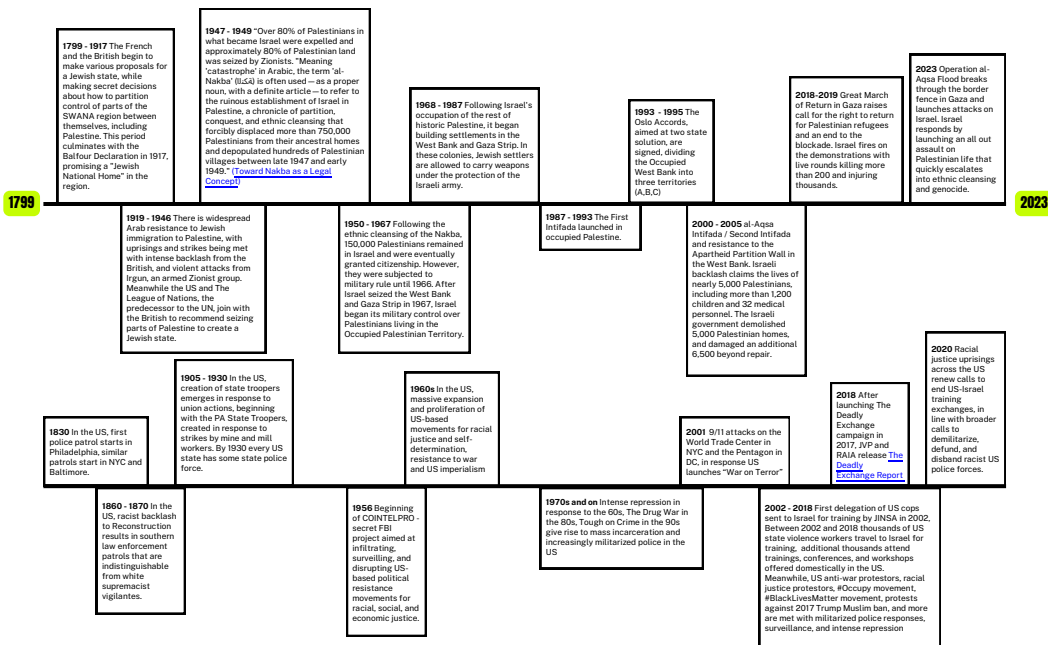
Israel’s occupation of the West Bank and Gaza is often regarded as a “laboratory” where the tactics and technologies of Israel’s booming security industry are developed. Countries like the US see Israeli weapons and technologies as “battle-tested” and “field-proven”; the longer Israel commits genocide, the more the US witnesses the real-world application of its tactics and exports them internationally.

# INTERTWINED HISTORIES

Because of how intertwined the work of US and Israeli state violence workers is, it can be helpful to consider timelines of the creation of the state of Israel, Palestinian resistance, the history of the US police state, and histories of US-based movements for social, racial, and economic justice in parallel.

We've included a few key dates below, but to really get into into these parallel histories we recommend digging into the resources below:

- [Palestine Remix from Al Jazeera](#)
- [Palestinian Nonviolent Resistance to Occupation since 1967 from AFSC](#)
- [Policing Timeline from Critical Resistance](#)
- [Black and Blue: A Philadelphia History of Police Brutality from the Inquirer](#)



# DIGGING DEEPER

During our June 10th teach in attendees had an opportunity to learn with and from each other in small groups about different facets of The Deadly Exchange.

Participants broke into five groups, with each group designating a facilitator, a timekeeper, a notetaker, and a person to report back to the collective.

The groups each took time to read about and discuss an aspect of The Deadly Exchange using the worksheets provided on the next five pages, then took turns teaching the collective about their area of focus when we came back together.

We hope these readings and questions encourage deep thinking about the ways state violence workers, nation states, and private corporations collaborate to enforce racial capitalism, imperialism, apartheid, and occupation, further highlighting the imperative of practicing internationalist, abolitionist solidarity in our movements.

Because these state violence workers, corporations, and governments collaborate in these ways, there's no such thing as tools, weapons, technologies or tactics that get used on some people, in some places — when weapons or tactics are normalized in one place, they'll get deployed in others. All of our futures are at stake.



# sale of Israeli drones to E.U. nations to surveil migrants

"Patrick Strickland, *Long Road Magazine*: Since 2015, a growing number of refugees and migrants have made it — or tried to make it — to Europe. In recent years, border violence has skyrocketed, with countries across the European Union's external borders carrying out pushbacks, or extrajudicial expulsions. How is Israeli technology being used in the surveillance of refugees and the militarization of European borders?

Anthony Loewenstein, author of *The Palestine Laboratory: How Israel Exports the Technology of Occupation Around the World*: A lot of what Israel sells and promotes is what they call 'battle tested.' They openly say it. 'Battle tested' means it's been used in Palestine, over Palestine, or on Palestinians. So, yes, a number of drones, the Hermes drone and the Heron drone, both Israeli drones, have been used over Gaza and over the West Bank, sometimes armed, sometimes not. And they've been used for years by Elbit, one of the main companies, Israel's leading defense company. And that is part of the sales pitch.

You have European nations, the E.U., Frontex (the border so-called security apparatus), and the U.S., who find it very appealing that it's been used in Palestine 'successfully.' So, in the last years, and this of course massively accelerated after the so-called refugee crisis in 2015, I mean I would argue it wasn't a crisis. It was a created crisis, but how it was reported and how many European nations eventually saw it...was they didn't want a repeat of that. They did not want any kind of repeat of huge numbers of Brown, Black bodies trying to enter the E.U., coming from Syria, Afghanistan, Iraq, [and] Africa in those kinds of numbers...

But the Israeli connection to all of that is that the E.U. and Frontex uses Israeli drones to monitor parts of the Mediterranean 24/7, every day of the year. These drones are not armed. They're unarmed, but they are essentially the eyes in the skies. And the reason why that's relevant is that of course the E.U. in the last years has made a very clear policy decision. Of course, they don't admit this or acknowledge this, but this is the reality. They've decided they want to let people drown and die in the ocean. You cannot get a more cynical, brutal policy than that. In other words, they've done that by essentially not just trying to criminalize rescue boats from taking people out of the water to take them to dry land and safety and be processed, etcetera. But they are actively advocating people either being left to drown — and the Israeli drones are the eyes in the skies that allow Frontex to see who is on the water, where they are, are they in trouble, do they need help."

(Excerpt from [Long Road Magazine interview](#) with Anthony Loewenstein, author of *The Palestine Laboratory: How Israel Exports the Technology of Occupation Around the World*)

## Discussion questions:

- How do Israeli drones aid in the European Union's project of monitoring — and ultimately excluding — migrants?
- How does the European Union and Frontex's use of Israeli drones mirror the surveillance of Palestinians?

# U.S. + Israeli law enforcement exchange of camera surveillance practices and technologies

"Israeli checkpoints, roadblocks, and other physical barriers in the West Bank have formed so comprehensive an enclosure that it has been termed the 'Iron Ring' around Palestinian life. Following 9/11, the NYPD installed a network of more than 8,000 cameras to provide 24-hour blanket surveillance over the city, known as the 'Ring of Steel.' As the proximity in name and practice suggest, camera networks have become a staple of both the US and Israeli surveillance arsenal, and law enforcement agencies from both countries regularly meet to share their expertise. American police officers on tour often visit the network of 400 cameras which blankets the Old City of Jerusalem operated by the Israeli company Mabat ("gaze" in Hebrew), and the head of the Israeli national police toured the New York camera network with former NYPD commissioner Raymond Kelly.

These meetings between US and Israeli law enforcement have brought some of Israel's surveillance technologies back to the United States. Following visits to Israel by the Atlanta Police, the department created a Video Integration Center, collecting and monitoring footage from the city's system of thousands of public and private 24-hour surveillance cameras. The department reported that the center is modeled after the command and control center in the Old City of Jerusalem and mimics Israeli methods to proactively monitor crime.

These exchanges create opportunities for Israeli security corporations that manufacture and market networked surveillance to obtain deals and contracts in the United States. In Baltimore, a camera network for the Citiwatch program is operated by the Israeli company Nice Systems. Another Israeli company Cellebrite, that provides technology to collect data from cell phones, has contracts with police departments and law enforcement agencies in at least 20 states. Nice Systems and Israeli company Verint, which was contracted by the National Security Administration for communication line tapping, have contracts with the LAPD. The LAPD has also expressed interest in the HoverMast drone by the Israeli company Spy Sapience, that can intercept wireless communications and is capable of facial recognition."

*(Excerpt from ["Deadly Exchange: The Dangerous Consequences of American Law Enforcement Trainings in Israel"](#))*

In 2014, the Philadelphia Police Department (PPD) began the SafeCam initiative, which is a push for private individuals and businesses to register their security cameras through a PPD network. This is in addition to the nearly 7,000 cameras that PPD accesses that are owned by SEPTA and PennDot.

"In 2012, the City Controller reported the city had just 216 cameras, and half were broken. In 2018, NBC Philadelphia reported that there were 428 cameras, and a weeks-long repair backlog. Today, Philadelphia's video surveillance net, run out of the police department's Real-Time Crime Center, has been expanded and integrated into a system that can access 2,686 city-owned feeds, plus 4,266 from SEPTA and PennDot."

*(Excerpt from [Philadelphia Inquirer article "Philly narcotics cops secretly used surveillance cameras. Video proved some of their testimony false"](#))*

## Discussion questions:

- What connections can be drawn between the role of camera surveillance networks in Palestine and the United States?
- How do meetings between Israeli and United States law enforcement about camera networks help facilitate the close collaboration between private security companies (especially Israeli companies) and governments?

# U.S. + Israel exchange of racist profiling and “counterterrorism” practices

"Throughout Israeli counterterrorism trainings for American police and security forces, direct parallels are made between the Palestinians and those who are presumed to threaten American safety, bolstering the idea of a US-Israeli alliance against Muslims and Arabs. Israeli trainings in counterterrorism reinforce a highly militarized discourse that calls for institutionalized racial profiling and state violence targeting Black and Brown communities and social movements that seek racial justice. What American law enforcement learn from Israeli policing is an official policy of marking entire populations as suspect, a model that is in direct opposition to efforts to end the racial profiling that has long been constitutive of American policing."

(Excerpt from ["Deadly Exchange: The Dangerous Consequences of American Law Enforcement Trainings in Israel"](#))

"GILEE, a project of Georgia State University's Andrew Young School of Policy Studies, sends high-ranking public safety officials to Israel for 'counterterrorism' training every year.

It also brings Israeli police to Georgia to receive training from local police departments in drug war tactics that largely target and devastate poor Black and brown communities.

Atlanta's deputy police chief Joseph Spillane participated in a two-week training mission to Israel in June 2015. The costs were paid by GILEE, according to records released under a freedom of information request.

After his return, Spillane told WABE public radio that the Atlanta Police Leadership Institute is 'modeled on the Israeli model.'

He also revealed that Atlanta's system for 24-hour camera surveillance of neighborhoods and public spaces 'mimicked' an operations center Israel has installed in Jerusalem. Spillane acknowledged that many Israeli cameras are set up to 'secure the fence lines' – in other words an integral part of Israel's occupation and system of forced segregation in the city.

The deputy chief implicitly compared Israel's context of military occupation to policing Atlanta. 'They have a very diverse population of Christians, Arabs and Jews living in the same space, and so they have similar problems with diversity as we have here,' Spillane said."

(Excerpt from the Electronic Intifada article ["Atlanta mayor rejects demand to end Israel police training"](#))

## Discussion questions:

- How does the use of camera surveillance in Atlanta mirror the use of camera surveillance in Israel and Palestine?
- What connections can be drawn between the repression of anti-policing movements in Georgia and the repression of Palestinian resistance to Israeli apartheid and occupation?

# Israeli partnerships with U.S. social media companies

"The advent of social media has been a challenge to Israel because for decades there were very few Palestinian voices in the Western media. With the rise of Facebook, Twitter, Instagram, YouTube and TikTok, a multitude of voices, often critical of Israel's occupation, are spreading their message and challenging the dominant, pro-Israel narrative. As a result, Israel has formed close relationships with all these companies and [The Palestine Laboratory: How Israel Exports the Technology of Occupation Around the World] shows many examples of critical posts about Israel often deleted, demoted or shadow-banned, particularly during periods of rising tensions in the Middle East.

My book shows a litany of interventions by social media company enforcers to either ban Palestinians or censor them.

This is the new battle space for Israel's war on Palestinians and anyone who seriously challenges its narratives.

The leading social media companies are often operating in line with US State Department priorities and highlighting and demoting 'friends' and 'enemies' accordingly."

(excerpt from [Verso interview with Anthony Loewenstein](#), author of *The Palestine Laboratory: How Israel Exports the Technology of Occupation Around the World*)

"...Israel is killing people based on being in the same Whatsapp group as a suspected militant. Where are they getting this data? Is WhatsApp sharing it?

Lavender is Israel's system of 'pre-crime' - they use AI to guess who to kill in Gaza, and then bomb them when they're at home, along with their entire family. (Obscenely, they call this program 'Where's Daddy').

One input to the AI is whether you're in a WhatsApp group with a suspected member of Hamas. There's a lot wrong with this - I'm in plenty of WhatsApp groups with strangers, neighbours, and in the carnage in Gaza you bet people are making groups to connect.

But the part I want to focus on is whether they get this information from Meta. Meta has been promoting WhatsApp as a 'private' social network, including 'end-to-end' encryption of messages.

Providing this data as input for Lavender undermines their claim that WhatsApp is a private messaging app. It is beyond obscene and makes Meta complicit in Israel's killings of 'pre-crime' targets and their families, in violation of International Humanitarian Law and Meta's publicly stated commitment to human rights. No social network should be providing this sort of information about its users to countries engaging in 'pre-crime.'

It's important to note that already Meta is taking extensive part in the Israeli-led and US-backed genocide, including significant and well-reported suppression of content supporting Palestinian freedom, as well a new anti-'anti-zionist' policy that is used to shut down dissent of Israel's crimes.

(Excerpt from [Paul Biggar blog post "Meta and Lavendar"](#))

## Discussion questions:

- What problems does the rise of social media present for Israel and other governments invested in upholding apartheid and law-and-order regimes?
- What is the Israeli government's involvement with Facebook/Meta, Instagram, and TikTok and how do these social media companies work in partnership with the Israeli government to carry out genocide?



# U.S. and Israeli university ties

"In its current genocidal war on the Gaza Strip, Israel has destroyed every single Palestinian university in the enclave with aerial bombardment or controlled detonation. Medical and engineering laboratories, training courtrooms of faculties of law, assembly and graduation halls, rich collections of books, art pieces, archival and archaeological artifacts, all completely decimated. Decades of Palestinian student academic and political life instantly wiped out.

This war on Palestinian education, what Karma Nabulsi has called 'scholasticide,' is central to Israel's genocide of Palestinians. And it did not begin now. It has been waged for seventy-five years. To fully understand how this war has been sustained, we cannot simply look to the Israeli military and military industries, nor to Israel's far-right government. We must also look to Israel's most vaunted liberal institutions — its universities.

For decades, Israeli universities have been celebrated in the West as exceptionally free. Upon launching its only Middle Eastern dual degree program with Tel Aviv University in 2020, Columbia University advertised its Israeli counterpart as one that "shares Tel Aviv's unshakable spirit of openness and innovation — and boasts a campus life as dynamic and pluralistic as the metropolis itself."

The Israeli state was founded through the mass expulsion of Palestinians, with the objective to establish a Jewish majority as the basis for a Jewish state. From the start, Israeli academia has been entangled in this settler-colonial project of elimination and replacement. Indeed, before even the founding of Israel, the Zionist movement founded three universities, which were explicitly to serve the movement's territorial objectives in Palestine.

First, in 1918, Hebrew University was established as a comprehensive university and center for the formation of a new collective Jewish-Zionist identity and nation. Founded at the apex of Mount Scopus, it was also built as a strategic outpost for the Zionist movement to stake claim to Jerusalem. Likewise, the Technion in Haifa and the Weizmann Institute in Rehovot were established to advance the scientific and technological development of Israel as a Jewish state in historic Palestine.

In the lead-up to the 1948 war, these three institutions of higher education were directly recruited to support the violent dispossession required for Zionist territorial expansion. The leading Zionist militia, the Haganah, established a Science Corps, which opened bases on all three campuses to research and refine military capabilities. Throughout the 1948 war, the universities helped sustain the mass expulsion of Palestinians to establish the state of Israel. Faculty and students developed and manufactured weapons, as their campuses, equipment, and expertise were put to the service of Zionist militias as they drove Palestinians from their lands.

With Israel's founding, the state continued this territorial and demographic project of replacement, officially terming it 'Judaization.' By the late 1960s, Israel's 'Judaization' program had expanded on multiple frontiers. Now, new Israeli universities were built to anchor this territorial and demographic project, their campuses constructed as strategic regional outposts that impelled both Palestinian enclosure and Jewish settlement expansion."

(Excerpt from Towers of Ivory and Steel: How Israeli Universities Deny Palestinian Freedom by Maya Wind, published in the [Jacobin article "Israel's Universities Are a Key Part of Its Apartheid Regime" by Maya Wind](#))

## Discussion questions:

- What role have Israeli universities played in the occupation of Palestine?
- What connections can be drawn between the ways in which both U.S. and Israeli universities ideologically and materially support the occupation of Palestine?

# SUCCESSFUL CAMPAIGNS

## What has worked?

- Developing sustained, strategic campaigns that employ a variety of tactics and have **clear aims and targets**.
- Identifying **secondary targets and pressure points** (banks that finance a company, contractors, etc.).
- **Organizing direct action** — occupation, strikes, blockades, pickets, property damage, and so forth — to disrupt the status quo.
- Toxifying corporations and cops through **narrative change**.
- **Targeting and vilifying executives** and forcing them to leave the company.
- **Educating media** and leveraging their influence to help enact reputational damage on companies.
- Calling out and **challenging copaganda and Hasbara**.
- **Amplifying stories** of those we're struggling alongside, from incarcerated people and their families to subjects of coordinated state violence.
- **Disrupting business models through policy campaigns**, making it difficult or impossible to conduct business as usual.
- **Blocking acquisition growth** to prevent both public and private entities from further expansion.
- **Diverting investors and capital** by proving that a company is not a viable or profitable investment through narrative work and direct outreach.
- **Educating and mobilizing the public** through public events, canvassing, phone and text banking, and collecting signatures and organizational endorsements.

### Past & ongoing campaigns have targeted:

- Securus, the nation's largest prison and jail telecoms corporation
- Durham PD - Demilitarize Durham2Palestine Coalition successfully organized Durham, NC to become the first US city to ban its police from training in Israel in 2018
- Northampton, MA and Vermont cancelled their training trips to Israel in 2019 following community pressure campaigns
- In 2020 New Orleans Eye on Surveillance campaign pushed the city to ban facial recognition software
- Stop LAPD Spying campaign against Boston Dynamics
- Palantir, whose tools fuel deportations and surveillance
- Elbit in Oldham, UK and Tamworth, UK
- Condiltox Laboratories in London, UK
- Hambach Forest Occupation in North Rhine Westphalia, Germany

# so what's next, dogcatcher?

**Ghost Robotics was founded in 2015, less than 10 years ago. Its existence is not inevitable, and neither is the occupation of Palestine.**

There's a growing and diverse movement in Philly committed to shutting down Ghost Robotics. We hope you will join it!

Remember, it only takes a few friends to make a crew! Who knows what you can do!

If you want to connect with us, you can scan the blue QR code and send us a little note via the encrypted form at [noghostrobot.info/signup](https://noghostrobot.info/signup), or email us at [noghostrobot.info@proton.me](mailto:noghostrobot.info@proton.me). Your responses won't be shared outside of our crew, we'll just use them to get in touch with you to say "hey, neighbor!"

*Hope to see you soon!*



**Next upcoming teach in:**



## **GHOST ROBOTICS AND BORDER VIOLENCE:**

**From Palestine to Mexico, All the Walls Have Got to Go!**

Wednesday July 10th | 6:30 pm | Virtual

**Details available at [www.noghostrobot.info](https://www.noghostrobot.info).**



**Missed our May teach in on GRxPenntrification?**

**Download the field guide over at [www.noghostrobot.info](https://www.noghostrobot.info).**



**BYE BYE  
BAD DOG!**