

SHIELD 6D · HOME CONTROLLER

One Brain Unites every home system

Security, cameras, climate, lighting, power, EV charging, irrigation and pool, all run by one controller inside your home. It works with the alarm sensors already on your walls, adds today's smart devices, and keeps protecting your home when the internet or the power goes down.



The Shield Home OS wall tablet (prototype): seven systems, one Brain.

One system instead of a dozen apps

Alarm, cameras, thermostat, lights, solar, EV charger, sprinklers and pool, all on one Brain, one account and one app.

Enroll new while keeping existing sensors

Your existing Honeywell / Ademco 5800 and 2GIG sensors, as installed by ADT, Bay Alarm, Vivint, Brinks and Guardian, keep working. Add new Zigbee (802.15.4), Wi-Fi and LoRa devices today, with Matter coming soon and Tyco / Johnson Controls (Interlogix) on the roadmap.

A powerful local brain that Unites

Every decision is made inside your home, so alarm, fire, CO and leak alerts never wait on the internet or on a routine.

Seven systems, one Brain.

You see one simple dashboard. Behind it, the Shield Brain connects your existing alarm sensors, new smart-home devices and wired equipment, and runs them all from inside your home.



The Shield Brain

The controller at the center of it all. It has a status display, a backup battery that takes over the moment power fails, a tamper switch and a siren output. The app and wall tablet talk to it directly; the 565 Energy cloud adds alerts and emergency dispatch.

ESP32-S3

ESP32-C6: Zigbee · Thread · Wi-Fi 6 · BLE

CC1101 alarm radio 345 / 433 MHz

2 × Ethernet · 2 × USB-A

Board Rev 074

● WORKING running today
 ■ BOARD hardware ready, software next
 ○ ROADMAP planned



Security

● WORKING

The heart of the system. Off, Stay and Away modes, entry and exit delays, a PIN with a silent duress code, and false alarms you cancel from your phone.

- Doors, windows, motion, glass break and panic buttons
- Smoke, heat, CO and water leaks, watched 24/7 even when disarmed
- Perimeter zones, arming by phone location, the right responder for each alarm

345 MHz · 433 MHz · Zigbee · LoRa · 12 V siren



Cameras

○ ROADMAP

Starts with a doorbell camera and grows into a camera wall. AI confirms a real person before an alarm escalates.

- Up to 6 wireless and 4 wired (PoE) cameras, recorded 24/7
- Indoor privacy cameras; works with other brands' cameras
- Tells people from pets and confirms across several cameras

Wi-Fi · wired camera hub on Ethernet port 2



Climate

○ ROADMAP

Heating, cooling and air quality by room, based on who is home.

- 2 zones included; zones 3 and 4 as add-ons
- Temperature, humidity, CO and CO₂ sensors
- Saves energy when you leave; stops the fan if smoke is detected

Zigbee · Matter · Wi-Fi · 24 V thermostat wiring



Lighting

○ ROADMAP

Scenes for everyday living, and lights that double as security.

- Zigbee and Matter bulbs, switches and dimmers
- Outdoor motion lights that also start the cameras
- Every light on during an alarm; a lit path when you arrive home

Zigbee · Matter · Wi-Fi



Power & EV charging

■ MONITOR READY

See where every watt goes, circuit by circuit, using 565 Energy's own hardware.

- 24 circuits measured by the 565 Energy amp monitor
- Solar, battery backup, outlet schedules and load shedding
- EV charging at off-peak rates or from spare solar power

Wi-Fi · Zigbee smart plugs · 24-channel amp monitor



Irrigation

○ ROADMAP

Watering that follows the weather and watches the water meter.

- Schedules per zone, rain skip and soil-moisture sensors
- Spots a broken line from unusual water flow
- Long-range wireless for far zones; pauses during a leak

LoRa · Zigbee · Wi-Fi · 24 VAC valves



Pool

○ ROADMAP

Clean water, efficient equipment and a safer pool area.

- Water temperature and heater control
- Pump schedules; pH, chlorine and ORP readings
- An alert when the pool gate or door opens

Pool equipment link (RS-485) · Wi-Fi · LoRa

One account, every screen

The same seven systems on your phone, the wall tablet and the Brain itself. One sign-in. 565 Energy keeps watch over every installed system.

- Self-monitor from the app, with no monthly fee
- Cloud alerts, escalation and emergency dispatch
- Works without internet; catches up when it reconnects

Phone app · wall tablet · operations center

What one Brain can do that a dozen apps cannot.

Separate apps cannot talk to each other. One Brain runs everything, so these responses happen on their own, in seconds, even with the internet down. They are planned scenarios, built on the alarm system that works today.



Break-in

WHEN · A DOOR OR WINDOW IS FORCED

SECURITY

LIGHTING

CAMERAS

The siren sounds, every light inside and out comes on, the cameras start recording, and your phone asks: **Cancel**, or **Send help now?**



Smoke or fire

WHEN · SMOKE OR HEAT IS DETECTED

SECURITY

CLIMATE

LIGHTING

The fire alarm is always on, even when the system is disarmed. The HVAC fan stops so smoke isn't pushed through the house, and the lights come on to guide everyone out.



Water leak

WHEN · A LEAK SENSOR GETS WET

SECURITY

IRRIGATION

The main water valve closes, the sprinklers pause, and you're alerted right away, day or night, armed or not.



Leave home

WHEN · YOUR PHONE LEAVES THE AREA

SECURITY

CLIMATE

POWER

The alarm arms itself to Away, the thermostat drops to energy-saving settings, and idle outlets switch off.



Peak electricity price

WHEN · UTILITY RATES GO UP

POWER

POOL

EV charging waits for cheaper hours, non-essential outlets switch off, and the pool pump runs on cheap power or spare solar.



Power cut

WHEN · THE GRID POWER FAILS

POWER

SECURITY

POOL

The Brain switches to its backup battery, tells you the power is out, keeps essential circuits running, and restarts the heavy pumps one at a time when power returns.

Works at home first, backed up by the cloud



IN THE HOME

Protects without the internet. Every alarm, fire, leak and automation decision is made by the Brain inside the home.

Nothing is lost in a power cut. Alarm records stay on the Brain until the cloud has a copy.

Safety always comes first. Alarms and life-safety events take priority over lighting, climate and energy routines.



IN THE CLOUD

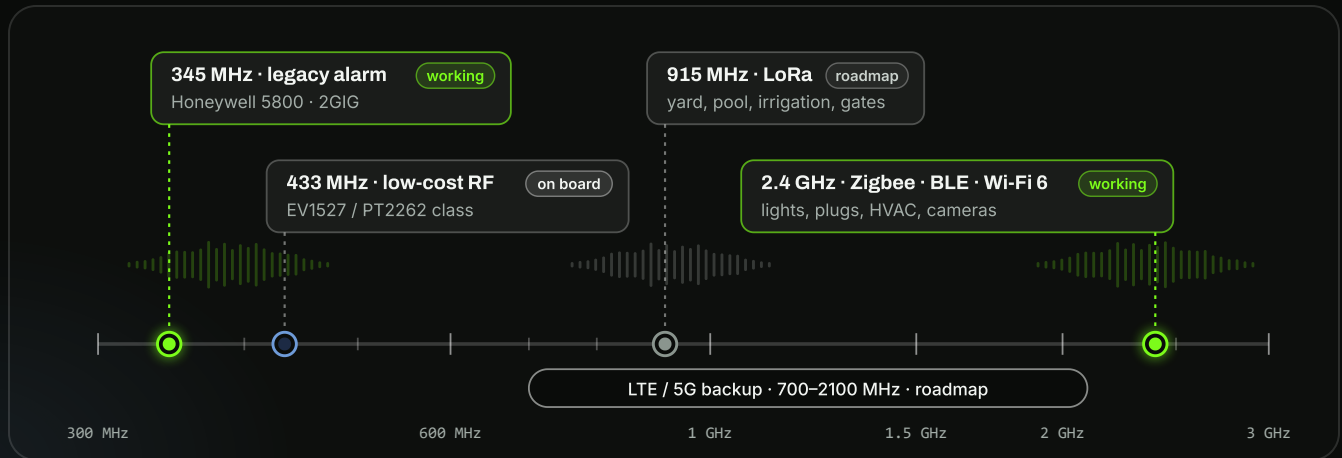
Silence raises the alarm. If the Brain goes quiet during an alarm, because an intruder smashed it, for example, the cloud treats that as an emergency and escalates.

You decide first. Before anyone is called, you can cancel a false alarm or send help straight away from the app.

Watched over by 565 Energy. We monitor the health of every installed system and send each type of alarm to the right responder.

Every band in the house.

One Brain listens from 345 MHz to 2.4 GHz, so old and new devices from many brands join the same system. Each radio earns its own level of trust as alarm evidence.



RADIO	WHAT IT CONNECTS	STATUS	TRUST AS ALARM EVIDENCE
Legacy alarm 345 MHz · CC1101	Honeywell / Ademco 5800 and 2GIG sensors already in the home: door and window contacts, motion, glass break, smoke and heat, CO, water, key fobs, panic buttons.	WORKING 4 sensors enrolled; dedicated antenna	Partial. One-way and unencrypted, so only enrolled sensors count, and none can call for help on its own.
Low-cost RF 433 MHz · same CC1101	Inexpensive fixed-code sensors (EV1527 / PT2262 class): contacts, motion, water, smoke, panic, remotes.	BOARD Decoding software next; one radio shares both bands	Partial, with extra checks against replayed and duplicate signals.
Zigbee 3.0 2.4 GHz mesh · ESP32-C6	Sensors plus whole-home devices: bulbs, switches, plugs, thermostats, valves, sirens (Third Reality, Aqara, Tuya, Sonoff).	WORKING 2 motion sensors live	High. Encrypted, two-way and supervised.
Thread / Matter 2.4 GHz · ESP32-C6	Matter lights, locks, thermostats and sensors; works with Apple Home, Google Home and Alexa.	ROADMAP Radio chip ready	High.
LoRa 915 MHz · RFM96W	Long-range Shield sensors for the yard: gates, driveway, detached garage, pool equipment, irrigation zones, well pump.	ROADMAP Needs a board revision or plug-in module	High once Shield's own protocol is in place.
Bluetooth LE 2.4 GHz · ESP32-C6	Setting up the Brain from your phone; later, phone presence and Bluetooth locks.	WORKING Phone setup	Setup only, never alarm evidence.
Wi-Fi 6 2.4 GHz · ESP32-C6	Home internet link; cameras; Wi-Fi plugs, lights, thermostats, EV chargers and pool equipment on the home network.	WORKING Internet link	Full trust for verified camera detections.
Ethernet x 2 · USB-A wired	Port 1: 4G / 5G backup unit powered over the cable. Port 2: camera base station. USB-A: RS-485 pool adapter or a Z-Wave module.	BOARD On the Rev 074 board	Wired and physically separate.
Cellular 4G / 5G 700-2100 MHz · external	Backup path when the home internet fails, so the cloud can tell "internet down" from "house in trouble".	ROADMAP Required before professional	A separate path for alarms.

Protection area by area.

AREA	DEVICES AND SENSORS	RADIOS	STATUS AND RULE
Intrusion	Door and window contacts, sliding doors, garage tilt, interior motion, glass break, vibration, key fob, panic, keypad	345 · 433 · Zigbee · LoRa	<div>● WORKING</div> <div>Police or monitoring center once the threshold is reached</div>
Life safety	Smoke, heat and carbon monoxide detectors	345 · Zigbee	<div>● WORKING</div> <div>Always on; goes to the fire service, never police by default</div>
Water	Leak and flood, freeze, pipe flow ("is my water running?"), motorized shut-off valve	345 · 433 · Zigbee · LoRa	<div>● WORKING</div> <div>Always on; closes the main valve</div>
Home safety	Stove heat ("is my stove on?"), indoor CO ₂	Zigbee	<div>○ ROADMAP</div> <div>Notifies the owner</div>
Perimeter	Outer, inner and inside zones; outdoor motion; gate and driveway sensors; phone geofence	LoRa · Zigbee · BLE · phone	<div>○ ROADMAP</div> <div>Wakes lights and cameras; never calls for help on its own</div>
Deterrents	12 V bell and siren, strobe, Zigbee and Wi-Fi sirens, security fog	Wired · Zigbee · Wi-Fi	<div>■ BOARD</div> <div>12 V bell output on the board</div>
Anti-jamming	Watches for radio jamming; jamming counts as evidence of an attack	CC1101	<div>○ ROADMAP</div> <div>Escalates an active alarm</div>

Five threat levels: how sure the system is.

L1

Activity

Outdoor motion or a minor device fault.
Recorded; optional alert.

L2

Suspicious

One enrolled sensor trips while armed. Pre-alarm and entry countdown.

L3

Probable intrusion

Forced entry, glass break, or two different sensors within 60 seconds.

L4

High confidence

Several zones in sequence, or the Brain goes silent mid-alarm.

L5

Verified emergency

A camera-confirmed person plus a breach, a panic button, or the silent duress code.

Working today: levels 1 to 3 end to end, plus duress at level 5. A duress code looks like a normal disarm at the keypad while it quietly sends a top-priority alert. Levels 4 and 5 fill in as cameras and multi-zone detection arrive.

Routed by category
The type of event decides who responds: break-ins go to police or a monitoring center, fire and CO to the fire service, water leaks to the owner. Panic and duress jump the queue.

Trust and corroboration
Sensors you haven't enrolled never trigger an alarm; the Brain can hear the neighbors' sensors too. Confirmation needs two different devices, so one sensor repeating itself doesn't count twice.

Levels only rise
An alarm is never dropped or quietly downgraded. Entering your PIN during the countdown ends it at home, before the cloud gets involved.

Security and energy on one Brain.

Shield's power features are built on the 565 Energy product line, so the same app that protects your home also measures its energy, charges your car and backs you up in an outage.



Amp monitor

● BUILT

Measures 24 circuits live, for per-circuit usage, outage detection and load shedding.



EV chargers

○ ROADMAP

Off-peak charging, charging from spare solar, and a pause when the house is near its limit.



Power inverters

○ ROADMAP

Solar production and backup power, shown alongside the home's live energy flow.



Battery storage

○ ROADMAP

Keeps essential circuits and the alarm running through an outage, then brings loads back one at a time.

Business model

\$15 and \$35 per month service tiers.

Fee-free self-monitoring from the app.

Professional monitoring as an add-on, through a wholesale monitoring center.

Expansion kits: cameras, climate zones 3–4, power, irrigation, pool.

Hardware financing, plus Shield-brand sensors as recurring hardware revenue.

Next milestones

- 1 Connect the wall tablet and app to the live Brain and cloud.
- 2 Cellular backup and battery, required before professional monitoring.
- 3 Power management: amp monitor, smart outlets and EV charging.
- 4 Lighting and climate over Zigbee / Matter; irrigation and pool controllers.
- 5 FCC Part 15 certification for every radio; UL 985 / 1023 optional.

565 ENERGY

565 Energy builds EV chargers, amp monitors, pure sine power inverters and LFP battery storage, and now the Shield 6D smart home system. Designed in Irvine, California.

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Status as of 26 October 2026. "Working" features run today on our test Brain and live cloud service. "Board" features are built into the production hardware; their software is still to come. "Roadmap" features are planned, not yet shipping. Product images are renders and a prototype screen. Specifications may change.