WIZARDS AND ROBOTS

With thanks to Tom Becker

PENGUIN BOOKS

UK | USA | Canada | Ireland | Australia
India | New Zealand | South Africa

Penguin Books is part of the Penguin Random House group of companies
whose addresses can be found at global.penguinrandomhouse.com.

www.penguin.co.uk
www.puffin.co.uk
www.ladybird.co.uk

Penguin
Random House
UK

First published 2018

001

Text copyright © William Adams and Brian David Johnson, 2018

The moral right of the authors has been asserted

Cover design: Eddie Axley, Cody Achter and Monika Arechavala

Set in 12.2/18 pt Sabon LT Std

Printed in Great Britain by Clays Ltd, St Ives plc

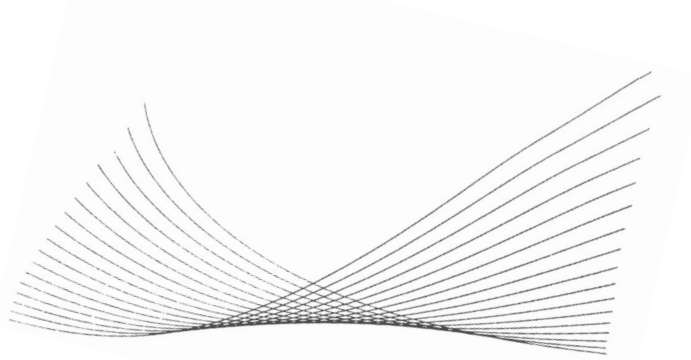
A CIP catalogue record for this book is available from the British Library

HARDBACK
ISBN: 978–0–141–36068–3

INTERNATIONAL PAPERBACK
ISBN: 978–0–141–36596–1

All correspondence to:
Penguin Books, Penguin Random House Children's
80 Strand, London WC2R 0RL

Penguin Random House is committed to a sustainable future for our business, our readers and our planet. This book is made from Forest Stewardship Council® certified paper.



01: The Ghost

2052
Scott Memorial High School,
Gainesville, Florida, USA

The sec-drone made a choked whirring sound as it rose into the air, training its lens on the students pouring out through the gates of Scott Memorial High School. From a distance, it resembled a giant blue-and-white bumblebee with a scratched Gainesville Police Department logo on its underbelly. None of the chattering students paid it any attention.

Except one.

Ada Luring leaned against the side of the bike dock, brushing her hair out of her eyes as she watched the drone stutter through the air. The other students didn't even glance at her as they went by, laughter breaking around her like waves on an island. Ada fished her phone out of her backpack and aimed it at the sec-drone, zooming in to capture the ident number beneath the police logo and taking a photo.

An excited voice called out Ada's name. She looked up to see Pri elbowing her way through the crowd towards her.

'There you are!' Pri said breathlessly. 'I've been looking absolutely *everywhere* for you since math, but it was like I was asking about a ghost because no one had seen you, and I was about to give up when I saw you here and –' Pri stopped. Following Ada's upward gaze, she waved her hand in front of her friend's face. 'Hello? Earth to Ada?'

'Sorry,' Ada said. 'I'm listening.'

'Sure you are. What's wrong?'

'Nothing,' Ada replied slowly, her eyes still fixed on the drone. 'But someone needs to fix the engine on that thing before it falls out of the sky.'

Pri shrugged. 'So? It's only a sec-drone.'

'I know. I'm just saying.'

Pri linked her arm through Ada's, pulling her away from the bike dock.

'We've got something much more important to discuss than silly sec-drones,' she said. 'I was thinking that we should do something together tonight.'

'Like what?'

Pri glanced around conspiratorially before answering in a whisper: 'Han's parents are out of town, and he's having a party at their lake house. There's a live DJ feed from a club in New York and a light show over the lake. The guest list is *très* exclusive – anyone who even mentions it on R8 won't be allowed in, because Han doesn't want anyone lame trying to crash it. But that's OK, because your good friend Pri has been invited and she can get you in.'

‘I don’t know, Pri. I think if you asked Han he’d say I was pretty lame.’

‘What is it, a year since you guys broke up?’

‘Eight months,’ Ada replied automatically.

‘People move on! Han’s not a bad guy. I’m sure he’d be cool if you came.’

‘You’d be even surer if you actually asked him.’

‘Ada! This isn’t any old party. It’s *the* party. Han’s throwing it for Ben’s seventeenth birthday. Remember Ben, with the strong arms and the blue eyes that make you just *melt* when he looks at you?’

‘I don’t have to remember him,’ Ada said drily. ‘He’s in my poli-sci class.’

‘Perfect! You can introduce me.’

‘I don’t know, Pri . . .’

‘C’mon, you know I’m right! It’ll be me and you, just like old times. Forget your computer and come hang out with some *real* people. Dance to awesome tunes and flirt with some really hot guys. Go skinny-dipping in the lake. Switch off that big old brain of yours and do something dumb for once!’

She gave Ada a winning smile.

‘Me and you,’ Ada repeated. ‘At a party at Han’s parents’ lake house.’

‘Me and you and Kit,’ Pri corrected her. ‘How else do you think I got on the guest list?’

‘Did somebody say my name?’

Right on cue, Kit Somers appeared at Pri’s shoulder. Dressed in a cream jumpsuit that left her slender arms

bare, with matching heeled strappy sandals, she was attracting glances from every boy who walked past. Her hair was tied up in an elaborate chignon that must have taken hours to fix. Ada was suddenly conscious of her scruffy jeans and sneakers, the chipped polish on her bitten nails. Kit had a habit of doing that to her.

'I was telling Ada about the party,' Pri told her.

'You should come!' Kit said brightly, looking down to check her R8 feed on a sleek watch.

'I can't,' Ada replied. 'I haven't finished my project for the Science Fair, and it's due in by the end of the week.'

'The Science Fair?' Pri groaned. 'What about Ben with the strong arms and the melty blue eyes?'

'What kind of grade would I get for him?'

'*I'd* give you an A.'

Ada laughed. 'And, if you were grading me, I'd come to the party,' she said. 'But I think Mr Pirelli is more interested in particle physics than Ben's melty blue eyes.'

'That's his loss,' said Pri.

'I've been reading up on particle physics and it's kinda cool actually,' Ada told her.

'Really? Tell me more.'

'Well, it's –'

Pri slumped her head on Kit's shoulder and closed her eyes, snoring loudly. Kit laughed.

'Fine,' said Ada. 'Forget about it.'

'Ignore her, Ada,' Kit said airily – as though *she* was the one who had been Pri's lifelong friend. No matter that Kit had only joined Scott Memorial at the start of

the semester. 'I'm sure that particle physics is cool. You know scientists, always looking for new toys to keep themselves amused. Though, if you ask me, we've got all the technology we need.'

Pri grinned. 'Ada's always been the Queen of Tech. When we were little kids, she always used to fix my holo-pet when it got sick.'

'Sorry, excuse me?' Kit raised an eyebrow into a perfect semicircle. 'Holo-pet?'

'Don't tell me you don't know what a holo-pet is! Everybody had one!'

'I didn't,' said Kit. 'I had an *actual* pet. A beautiful tortoiseshell cat called Serenity.'

Of course she did, thought Ada. And it was probably the most perfect cat in the history of pets.

'Listen, I really gotta go,' she told Pri. 'Have fun tonight.'

Pri nodded, resigned to defeat. Ada slipped her backpack over her shoulders and pulled up her hood. Immediately the soft material moulded round her skin, forming a rigid mesh that protected her head like a helmet. She deactivated the micro-computer security block on her bike and climbed on to the saddle.

'Good luck with your science project!' Kit called out.

Ada smiled half-heartedly back. Weaving a path through the other students, she cycled out of the school gates, leaving the malfunctioning sec-drone behind her. As the crowds thinned out, she picked up speed, the wind whipping past her face. Maybe Pri was right: maybe she should go to the party. A year ago, Ada wouldn't have

thought twice. But that was before. Before her dad died and her world came crashing down around her. Before the bleak aftermath and her break-up with Han. Now Kit was on the scene with her expensive clothes and trips to shopping malls, threatening to take Pri away, too.

A loud bleeping interrupted her: it was the bike's security block, alerting Ada to a car backing out of a driveway – a small blinking light on the map on her bike's display. As she stopped and waited for the road to clear, there was a rustle in the laurel oak casting a shadow over the sidewalk. Ada looked up and saw a small drone hovering in the branches. She assumed it was just another sec-drone, but when she looked closer she saw that there was no Gainesville PD logo on the machine's belly, and no ident number either. The unmarked drone's lens was trained on her like a rifle sight.

That didn't have to mean anything sinister, Ada told herself. Drones buzzed around all the time. Only a month ago, the school football team had sent out a drone programmed to bombard the crowd with fliers about their upcoming game. And if the *football team* could program a drone . . .

She pedalled away slowly. The leaves rustled once more, and out of the corner of her eye Ada saw a shadow inching along the sidewalk after her. The drone was definitely following her. Ada picked up speed, biking straight past the turning for her street. There was no way she was going to show the drone where she lived. Wait until she told her mom about this, Ada thought angrily. It was all *her* fault.

Ada's mom Sara was a scientist at the University of Florida, and an expert in artificial intelligence. Over two years ago she'd entered the Rodin Challenge, a special new competition organized by Global Advancement Projects (GAPs) – a worldwide agency that funded technical and scientific research. Sara had warned Ada to keep a careful eye out for any kind of surveillance from rival teams, but she'd laughed it off, thinking her mom was just being paranoid. It didn't seem quite so funny now. Had the drone been waiting for her outside the school gates? She'd been too distracted by her conversation with Pri and Kit to notice it.

Then, suddenly, she knew what to do. At the next intersection, Ada turned left, pedalling quickly down the street. Beyond the row of residential homes an arc of white light hovered like a giant halo above the Apollo Corp industrial park. She led the drone towards it, ignoring the locked front gate and veering off the street to a strip of wasteland that ran along the side of the solar-panelled factories and warehouses. When she and Pri were little, they'd discovered a rusted and broken section of the metal railings, with just enough room for them to squeeze through with their bikes. One of the factories had a door with a faulty ident panel, allowing them to sneak inside and make dens and play with their holo-pets while Apollo Corp's automated machinery churned out electrical parts along the conveyor belt. They might have grown out of holo-pets, but Ada hadn't stopped tinkering with the technology. And now she was going to play a game of a different kind.

Ada jumped down from her bike and wheeled it through the gap in the railings. The drone flew in low over the ground behind her – she took out her phone and snapped a quick picture before biking across the tarmac towards the warehouses. Banks of solar panels gleamed in the sun. Twisting round, Ada saw that the drone was weaving erratically in the air – as she had hoped, its visual sensors had been blinded by the brilliant glare. She had bought herself a few seconds' breathing space.

Cycling down a narrow alleyway between two of the warehouses, Ada jammed on the brakes beneath an overhang. She climbed down from her bike, her helmet softening into a hoodie as she pushed it back, then she held her phone at arm's length and took a selfie. Rifling through her backpack, she pulled out a cheap, pen-size projector she used for class and hooked it up to her phone. A couple of seconds was all it took to upload the selfie. Ada turned on the pen projector and found herself staring at a ghost. A shimmering image of herself stood in front of Ada – an identical fifteen-year-old girl, the same brown hair falling in front of her eyes, the same watchful expression on her face. It was like standing in front of a mirror.

Creeping to the corner of the warehouse, Ada carefully wedged the projector behind a drainpipe, aiming the pen so that her image was projected out into the middle of the tarmac. She caught her breath as a shadow darted out from above the shining solar panels – would the drone take the bait? If it had heat-seeking sensors, it would detect that the hologram wasn't real, and it would be Game Over. All Ada

could do was pray that the machine didn't have that kind of tech.

The drone zoomed on over the hologram and paused in mid-air, its lens zeroing in on Ada's ghost. Ten seconds passed, thirty, a minute. Nothing moved. A small smile of satisfaction spread across Ada's face. Maybe having a holo-pet hadn't been so bad after all – she would have liked to have seen how Kit's precious Serenity could have helped shake off *this* unwanted admirer. Ada crept back to her bike and pedalled away, leaving the unmarked drone frozen in mid-air, hovering above her ghostly image.