

Robotics Engineer

Design machines that sense, decide and move. Half mechanical, half electrical, mostly code.

TYPICAL PAY

\$122,930

a year, full time

PAY RANGE

\$67k to \$190k

starting to experienced

TIME TO QUALIFY

4 to 6 years

after high school

DEMAND

Moderate

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

Car plants, warehouses, defense firms, surgical robot makers, rese...

How you get there

- 1 High school** Grades 11 and 12
 Calculus, physics and any computer class. Join the school robotics competition team if there is one, and build something that moves.
- 2 Bachelor's degree** 4 years
 Robotics engineering, or mechanical, electrical or computer engineering with robotics electives. Check the program is accredited by ABET (the Accreditation Board for Engineering and Technology).
- 3 Internships and a co-op** During the degree
 Two or three summers, or a six-month co-op placement. This is the single biggest factor in getting hired.
- 4 First job** Year 4 or 5
 Controls engineer, automation engineer, test engineer or robotics software engineer. You will spend a year learning how real hardware fails.
- 5 Master's, optional** 1 to 2 more years
 Needed for perception, autonomy and research roles. Many people do it part time while an employer pays.

Pros and cons

- + Pay well above the average for a four-year degree
- + You build real machines, not just documents
- + Skills move between industries: cars, warehouses, surgery, farming
- The math is genuinely hard and the failure rate in first-year engineering is high
- Deadlines around demos and factory installs eat evenings and weekends
- Defense and automotive projects get cancelled, and layoffs follow

Optional boosts

ROS (the Robot Operating System). Computer vision and machine learning. Control theory. PLC (programmable logic controller) programming.

Good to know

Robotics has no box on the federal wage survey

The government counts robotics engineers inside a residual group called Engineers, All Other. That is why the published pay range is so wide: it covers a factory controls job and a self-driving car job under...

The first robotics degree is younger than you think

Worcester Polytechnic Institute in Massachusetts opened the first robotics engineering bachelor's degree in the nation. Before that, everyone in robotics arrived through mechanical, electrical or compu...

Where these numbers come from

My Next Move: Robotics Engineers (17-2199.08)

NCEES: engineering licensure exams

ABET: accreditation of engineering programs

Worcester Polytechnic Institute: Robotics Engineering Department

Numbers checked September 2026. Pay figures are typical full-time annual amounts in United States dollars, based on Bureau of Labor Statistics wage data and published pay scales. They vary by state, employer and experience. Tuition is for in-state students at public schools unless the card says otherwise. Sources, links and the click-through version: <https://career.help/us/careers/robotics-engineer>



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