

BEAVER WORKS
Lincoln Laboratory | School of Engineering

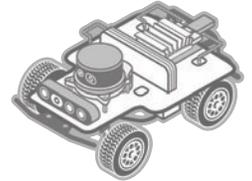


MIT Beaver Works Summer Institute

Fall 2021 Outreach Program – 6 Courses



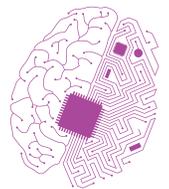
Girls Who Program Autonomous Cars



Girls Who Design, Build and Fly Model Aircraft

Girls Who Want to Learn Many Interesting Things

Girls Who Program Cognitive Assistants



Girls Who Program Autonomous Cars – BWSI-Pacific

**Kwaj Mini-RACECAR Middle School
(Kwajalein Atoll, Marshall Islands)**

**No Prior
Experience
Required!**

WHO: High School 11th Grade Female Students
WHEN: Saturdays 11am-2pm (EST): October 16, 23, 30,
November 6,13, 20, December 4, 11, 2021
WHERE: Virtually, through Zoom!
REGISTER: https://mit-bwsi.formstack.com/forms/bwsi_fall2021



DISTRIBUTION STATEMENT A. Approved for public release: Distribution is unlimited.

This material is based upon work supported by the United States Air Force under Air Force Contract No. FA8702-15-D-0001. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the United States Air Force.

© 2021 Massachusetts Institute of Technology.

Delivered to the U.S. Government with Unlimited Rights, as defined in DFARS Part 252.227-7013 or 7014 (Feb 2014). Notwithstanding any copyright notice, U.S. Government rights in this work are defined by DFARS 252.227-7013 or DFARS 252.227-7014 as detailed above. Use of this work other than as specifically authorized by the U.S. Government may violate any copyrights that exist in this work.



GIRLS WHO PROGRAM AUTONOMOUS CARS

A BWSI MINI-RACECAR CRASH COURSE

RACING ROBOT!



No Cost!

LEARN TO CODE PYTHON!



NO HARDWARE REQUIRED!



No Prior Experience Required!

Who: Female High School Juniors interested learning about code and robots! Beginners encouraged!
When: Saturdays 11am to 2pm (EST) – 10/16, 10/23, 10/30, 11/6, 11/13, 11/20, 12/4, 12/11, 2021
Where: Virtually, through Zoom!
Registration Form: <https://mit-bwsi.text>





Girls Who Design, Build and Fly Model Aircraft — A BWSI Crash Course.

**Design
Build
Fly
Crash
Rebuild**



Introduction to RC Model Aircraft Design

**No Prior
Experience
Required!**

Who: Female High School Juniors interested in Aerospace and Aeronautics.

When: Saturdays 11am to 2pm (EST) – 10/16, 10/23, 10/30,
11/6, 11/13, 11/20, 12/4, 12/11, 2021

Where: Virtually, through Zoom!

Registration Form: https://mit-bwsi.formstack.com/forms/bwsi_fall2021



Girls who want to learn

Many Interesting Things:

From Transistors to Data Science

A BWSI Medlytics intro course by Christian Cardozo

An early introduction to the technologies that shape our world,
with applications to medical data analytics!

Computer Architecture • Python
Machine Learning • Computer Vision

No prerequisites.
No pressure.

**NO PRIOR
EXPERIENCE
REQUIRED!**

Who: Female High School Juniors interested learning about computers, coding and medical data analytics. Beginners Encouraged!

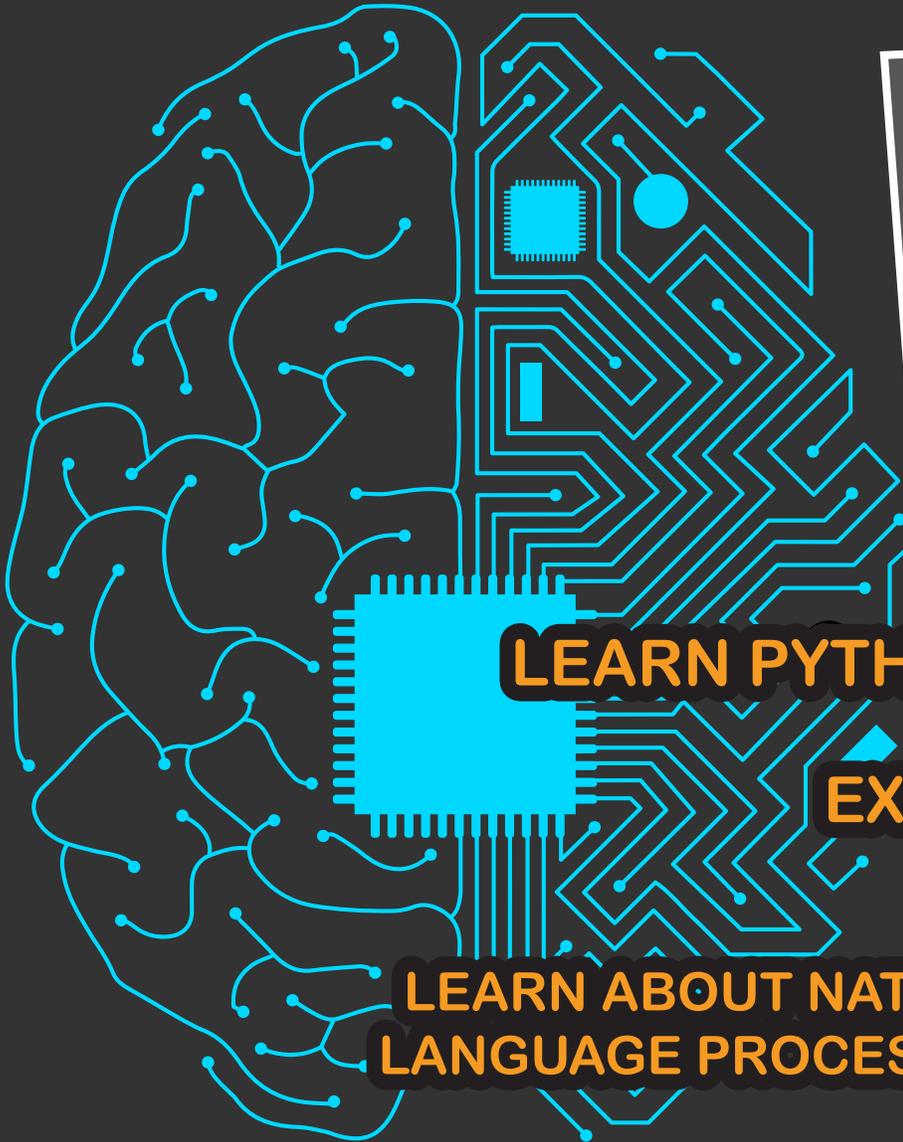
When: Saturdays 11am to 2pm (EST) – 10/16, 10/23, 10/30, 11/6, 11/13, 11/20, 12/4, 12/11, 2021

Where: Virtually, through Zoom!

Registration Form: https://mit-bwsi.formstack.com/forms/bwsi_fall2021



Girls who program cognitive assistants! — a BWSI crash course



An introduction to artificial intelligence through building an autonomous cognitive assistant!

LEARN PYTHON!

EXPLORE MACHINE LEARNING!

LEARN ABOUT NATURAL LANGUAGE PROCESSING!

No Prior Experience Required!

Who: Female High School Juniors interested learning about code and artificial intelligence! Beginners Encouraged!

When: Saturdays 11am to 2pm (EST) – 10/16, 10/23, 10/30, 11/6, 11/13, 11/20, 12/4, 12/11, 2021

Where: Virtually, through Zoom!

Registration Form: https://mit-bwsι.formstack.com/forms/bwsι_fall2021





GIRLS WHO PROGRAM AUTONOMOUS CARS

A BWSI MINI-RACECAR CRASH COURSE

CONNECT WITH GIRLS ACROSS THE PACIFIC!



No Cost!

LEARN TO CODE PYTHON!



NO HARDWARE REQUIRED!



No Prior Experience Required!

Who: Female High School Juniors interested learning about code and robots! Beginners encouraged!
When: Saturdays 1pm to 4pm (HST) – 10/16, 10/23, 10/30, 11/6, 11/13, 11/20, 12/4, 12/11, 2021
Where: Virtually, through Zoom!
Registration Form: https://mit-bwsi.formstack.com/forms/bwsi_student_kwaj_fall_application_2021





KWAJ MINI-RACECAR MIDDLE SCHOOL

A BWSI MINI-RACECAR CRASH COURSE

RACING ROBOTS!



LEARN TO CODE PYTHON!



NO HARDWARE REQUIRED!



No PRIOR EXPERIENCE REQUIRED!

Who: Kwaj students in grades 7 – 9. Beginners encouraged!
When: TBD, one afternoon/evening per week beginning late October
Where: Namu Wetu Youth Center
Registration Form: *Registration form available at Namu Wetu Youth Center*

