

Requirement 5. Project.

With your counselor's guidance, select three different programming languages and development environments. For each sub-requirement below, do the following:

Write or modify a program using the indicated programming language and development environment.

The program must take input and produce output based on computations and decisions made on the input.

Debug and demonstrate the program to your counselor.

Explain how each program processes inputs, makes decisions based on those inputs, and provides outputs based on computations and decision making.

- (a) In the first language and environment, write or modify a program, debug and demonstrate, and explain as above.**
- (b) In the second language and environment, write or modify a program, debug and demonstrate, and explain as above.**
- (c) In the third language and environment, write or modify a program, debug and demonstrate, and explain as above.**

Scout Life has a resource with a list of programming languages and industries where they are used. It contains examples as well as links on how to get started in each of the languages. Some of them have videos.

<https://scoutlife.org/merit-badges/programming-merit-badge/>

Automation Direct has a video explaining how to use the Scout Life resource.

<https://www.youtube.com/watch?v=s07aEbPwThM>

Codédex has multiple languages which can be used on mobile devices, and introduces languages gradually. It's free, and includes Python, Javascript, Java, C++. There is nothing to install.

<https://www.codedex.io/>