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Project 4

# Search and Retrieve Steps

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| **Fig 1.** Ping Bot path |

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| **Step** | **Ping Bot Action (see Fig 1)** |
| 1 | * Orient encoders. * Orient PING))) to the right. * Drive forward until leading edge of wall is found. When the wall is found, measure the x-coordinate distance to the wall. Store x-coordinate distance to wall and encoder steps as variables for the transmission array. * Move forward 18 inches to CP1. * Rotate 90 degrees to align with bridge. |
| 2 | * Orient PING))) to the left. * Drive e1 distance east. |
|  | * Drive 24 inches east to CP3. |
| 4 | * Move forward * Scan for leading edge of treasure wall. |
| 5 | * Measure distance to treasure wall. * Transmit distance array to Treasure Bot. |
| 6 | * Move 24 inches to eliminate interference with Treasure Bot. |

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| **Fig 2.** Treasure Bot path |

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| **Step #** | **Treasure Bot Action (see Fig 2)** |
| 1 | * Receive transmission array from Ping Bot. * Travel e2 distance east. |
| 2 | * Travel n1 distance north. |
| 3 | * Travel n2 distance north. * Secure treasure with pincers. |
| 4 | * Travel n2 distance south. |
| 5 | * Travel e2 distance west. |
| 6 | * Travel 24 inches west. |
| 7 | * Travel e1 distance west. |
| 8 | * Travel n1 distance south to end. * Release pincers to drop treasure. |

# Arduino Code

## Ping Bot

Blah Blah blah, insert code

## Grabber Bot

Blah blah blah, insert code