**TEJ Program Planning Worksheet**

1. Complete the Input-Output-Processing Chart (Output first, Input Second, Processing third)

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| Command Buttons | Sends command through bluetooth | Turn light on/off, turn security on/off, lock/unlock door, open/close garage. |
| Ultrasonic Sensor | Sends out a signal and reads how long it takes for it to come back | Distance in cm, alarm |

1. List each input and output and their type (string, integer, single, double, boolean etc) Include if the variable will be Local to a Procedure (LP), Local to a Form (LF) or Global (G)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input** | **Type** | **Local/Global** | **Output** | **Type** | **Local/Global** |
| Sonar | Sensor (int) | L | If there is an intruder | boolean | G |
| Button | boolean | L | inData | string | G |
| inData | string | G | Turn something on/off or open/closed | int | L |

1. List any other variables to be used, their type and if they will be local or global.

|  |  |  |
| --- | --- | --- |
| **Variable** | **Type** | **Local/Global** |
| oHalls, oGarage, oDining, etc | boolean | G |
| inData | string | G |
| amHome | boolean | G |
| intruder | boolean | G |
| Echo, trigger, ledHalls, etc (pins) | constant | G |
| Duration, distance | int | G |

**Bluetooth Protocol:**

Locations:

|  |  |
| --- | --- |
| Front | F |
| Hall | H |
| Office | O |
| Livingroom | L |
| Kitchen | K |
| Dining room | D |
| Garage | G |
| Security System | Z |
| All | A |

Devices:

|  |  |
| --- | --- |
| LED | B |
| Motion Sensor | M |
| Garage Door | O |
| Lock | L |
| Alarm | T |

Format:

(location letter)(device letter)\*