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| **Create PT Planning Guide** | Name: |
| **Remix Step 1: Review your programs** | |
| What program or programs could help you with the Create PT. You can open programs and use them as a guide while you work on your original Create PT project. | Add notes about the program(s). |
| **Remix Step 2: Create PT Project** | |
| Describe your project.  What is its purpose?  What is its function?  Who is the intended user?  What will be the input and output? |  |
| **Remix Step 3: Plan your code.** | |
| What variables will you use in the project? Fill in the chart.  You do not need to fill in every row, or you can add more rows. | |  |  | | --- | --- | | Variable Name | What it will be used for: | |  |  | |  |  | |  |  | |  |  | |
| Your project needs at least one list.  What list or lists will you use? What will the list be called, and what are the items in the list? | |  |  | | --- | --- | | List Name | List Items | |  |  | |  |  | |
| What are some functions you can define and use? You might not know in this initial stage, but starting thinking about them.  You do not need to fill in every row, or you can add more rows. | |  |  | | --- | --- | | Function name | What it will do | |  |  | |  |  | |  |  | |
| What buttons will you use, and what will happen when pressed? | |  |  | | --- | --- | | Button | What will happen when pressed: | | BTN\_A |  | | BTN\_B |  | |
| What LEDs will you use (user, ls)? | |  |  |  | | --- | --- | --- | | LED | Turn on when: | Turn off when: | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |
| What sensors will you use?  What movement will the ‘bot make?  Use this space for further planning. |  |
| **Use a piece of paper to write an algorithm for your project.** What happens first, then next? This algorithm will help you get started. Think about:   * What libraries do you need to import? * What variables will you define at the beginning of your code? * Are there functions you can program at the beginning? You may add them as you go. * What happens in the main program? What will happen in the button presses? | |
| **Remix Step 4: Write your code** | |
| Use the sandbox  when you write the code. Start a new file and give it a descriptive name (**CreatePT**). Write just a few lines at a time and test often. Start by importing your modules and defining variables and functions. Review the checklist to ensure you meet all the requirements. Include blank lines and comments for readability and documentation. | |
| **Remix Step 5: Feedback and Revise – this step is optional for the Create PT, but it is always a good idea.** | |
| **Peer feedback:** After you complete the program, get feedback | |
| Go through the checklist. Are all requirements met? If not, list any missing criteria. |  |
| What do you like about the program – be specific! |  |
| Give at least one suggestion. Begin with “what if” or “maybe you could”: |  |

**Create PT Project Requirement Checklist:**

* A list is created and has elements in it.
* The list is used in the program in a meaningful way.
* The project has a function with at least one parameter.
* The parameter has an effect on the functionality (causes different parts of code to run)
* The function has selection (an if statement)
* The function has iteration (a loop)
* At least some of the program works, and shows input and output