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| --- | --- | --- | --- |
| **Requirements** | **Python** | **C++** | **Java** |
| Graphical libraries available | Yes Allegro (Kind of) | Yes Urho3D, Allegro | Yes OpenJFX |
| USB libraries available | Yes  PyUSB | Yes Uspi | Yes RXTX |
| Relative difficulty (Due to experience etc) | Easy | Medium | Easy |
| Complied language | No | Yes | Yes |
| Cross-Platform | Yes | No | Yes |

Python:   
- Large amounts of experience with it  
- Well documented USB and graphics librarys exist for Raspberry Pi  
- Little to no refactoring required to transfer to different systems  
- Interpreted language, slower to run on a system with such limited performance  
- Various tutorials about it:

<http://pythonprogramming.net/pygame-python-3-part-1-intro/>   
<https://pygame.org/wiki/tutorials/>

C++:  
- Never used before  
- Well documented graphics library exists for Raspberry Pi  
- Fastest language compared to the other 2 as it is a compiled language that runs as machine code on the machine  
- Large amounts of tutorials available:

<http://www.sdltutorials.com/sdl-tutorial-basics>  
<http://lazyfoo.net/SDL_tutorials/>

Java:  
- Fairly experience with Java   
- Compiled language, but still slower as it is running in an emulated environment  
- Graphics and USB libraries have relatively limited documentation  
- Limited Documentation

**Decision**

Game Controller Drivers: Python  
As it is a unfamiliar area, Id rather use a familiar language that is well documented with the hopes of reducing any potential syntax issues.

Game: C++  
As it is a compiled language running on a machine with limited resources, it would be the best language to use. Also an unfamiliar language Im interested learning