2024 Xero HID Mapping   **Revision 1**   **Feb 4, 2024**

HID name		Purpose	Device Call Out	Logic	Comment	Device Type
Button	1	Shoot/amp/trap	switch 3c - right side	high = shoot mode	if 1+2 are both low = amp mode	Three position toggle switch
	2	Shoot/amp/trap	switch 3c - left side	high = trap mode		
	3	climb up prepare	button 3a - yellow	high = climb up prepare		Lighted yellow pushbutton
	4	execute climb	button 3b - blue	high = execute climb		Lighted blue pushbutton
	5	(spare)				
	6	unclimb execute	button 3e - blue	high =climb down		Lighted blue pushbutton
	7	shoot	big yellow button	high = shoot now		Large yellow arcade button
	8	turtle	big green button	high = execute turtle		Large green arcade button
	9	abort	big red button	high = abort current action		Large red arcade button
	10	eject (sing)	big white button	high = eject the note		Large white (clear) arcade button
	11	(spare)	(to be added as needed)			
	12	spare	switch/4a - right side			
	13	spare	spare/4a - left side			
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					This picture is not correct, but can be made correct by reading the updates listed below the picture.
	22					The OI as of 2/4/2024 is built to agree with the updates, and has been reviewed by Lily.
	23					
	24					
Joystick	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
Outputs	1	shoot -drive base ready	led 1a	high=on, low=off		Amber LED
	2	shoot -shooter velocity ready	led 1b	high=on, low=off		Amber LED
	3	shoot -shooter tilt ready	led 1c	high=on, low=off		Amber LED
	4	shoot -shooter april tag ready	led 1d	high=on, low=off		Amber LED
	5	okay to prepare to climb	led inside 3a-yellow	high=on, low=off		Yellow LED inside switch 3a
	6	ready to execute climb	led inside 3b-blue	high=on, low=off		Blue LED inside switch 3b
	7	spare				
	8	ready to execute unclimb	led inside 3e -blue	high=on, low=off		Blue LED inside switch 3e
	9					
	10	Input 0 to LED panel			10 and 11 are two-bit interface to LED panel	
	11	Input 1 to LED panel			What the 2 bits mean is to be determined	
	12					
	13					
	14					
	15					
	16					

LEDs
1a – Shoot: Drive base ready
1b – Shoot: Shooter velocity ready
1c – Shoot: Shooter tilt ready
1d – Shoot: Speaker april tag detected
1e – Amp/Trap: Note transferred to manipulator
2a – Climb up prepare can be pressed
2b – Climb up execute can be pressed
2c – Climb down prepare can be pressed
2d – Climb down execute can be pressed

Toggles
3c – Three position toggle switch – Speaker/Amp/Trap
4a – Three position toggle switch – Amplification, Cooperition, None

Buttons
3a – Climb up prepare, move elevator and pivot to position to start climb
3b – Climb up execute, move to elevator to climb the robot
3d – Climb down prepare, move elevator and pivot to position to lower
3e – Climb down execute, move elevator to lower the robot
Shoot – Launch the note at the speaker
Handoff – Move the note from the shooter platform to the manipulator

Updates to Oi diagram:

1. Add turtle button and remove handoff button
2. Combine 3d and 3e
3. Keep 4a as a SPARE
4. 3e becomes amp prepare (raises tramp arm but doesn't score)
5. Move shoot and Turtle (labled as Hand Off) inwards
6. add spare button
7. remove 1e
8. add eject button (for broken notes)