

# Wombat Controller Overview

#### **Wombat Controller Overview**





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#### Wombat Controller Overview





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#### Wombat Controller Guide











- The Wombat uses an external battery pack for power
  - It will void your warranty to use a battery pack with the Wombat that hasn't been approved by KIPR.
- Make sure to follow the shutdown instruction on slides 18 and 19
  - Failure to do so will drain your battery to the point where it can no longer be charged.
  - If you plug your battery into the charger and the blue lights continue to flash then you have probably drained your battery to the point where it cannot be charged again. You will need to purchase a replacement battery.

#### **Charging the Battery**



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It is possible to damage the battery by using the wrong charger or excessive discharge!

The standard power pack is a lithium iron (LiFe) battery, a safer alternative to lithium polymer batteries. The safety rules applicable for charging any battery still apply:

- Do <u>NOT</u> leave the battery unattended while charging.
- Charge in a cool, open area away from flammable materials.



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### • The power switch is located on the side of the Wombat controller next to the external battery connection





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All connections are as follows:

• Yellow to Yellow (battery to controller)



- White small to White small (charger to battery)
  - Yours may vary slightly, <u>use caution when</u> <u>unplugging</u>



• Black to Black (motors, servos, sensors)



 After shutting down from the main home screen, slide the power switch to off AND <u>unplug the battery</u>; use/grab the yellow connectors, being careful not to pull on the wires



#### Wombat Power Down



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## • From the Wombat Home Screen press Shutdown

• Select Yes

About Shut Down Re	boot	About	Shut Down	Reboot
Programs			ter system halted, slide power switch off or	× ×
🕒 🛛 File Manager		· v dis	sconnect battery. ontinue?	
🕶 Motors and Sensors	j	🗢 Mot	ors and Sens	sors
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	LiFe 🔲 🔿			LiFe 🛄 📀

#### **Battery Level**



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- The KIPR Robotics Controller Wombat has a color keyed battery indicator (green-yellow is ok, red is getting low)
- A Yellow LED will flash when the battery is critically low
- If it gets too low, you may see this rainbow screen
  - If this happens, turn the Wombat off and replace the battery with one that is charged





#### **Backup Programs via Botui**





- 1. You'll see the output of the Backup process
- When finished, you'll be able to scroll through the output log to see what specific files were not backed up and why (usually due to a special character

Home	Back		. Home	•	Back
Backup in progress Creating backup folder in USB root: /mnt/ Backed_Up_Projects Copying Users and Projects to USB Drive	Backup Restore	ل ال	Backupin progress WARNING - The followin files were not backed		Backup Restore

#### **Restore Programs via Botui**

- 1. Insert a flash drive into one of the USB ports on the Wombat that has your programs on it (that you have previously backed up)
- 2. Select "Settings"
- Select "Backup" 3.
- Select "Restore" 4.
- 5 Select "Yes"



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Back



Home



#### **Restore Programs via Botui**



1. You'll see an output of the Restore process begin and end

. Home	Back
<pre>restore in progresse Restoring files to: / home/kipr/Documents/KISS</pre>	
-e Files successfully restored!	Backup
-e Restore process complete!	Restore
Restore Complete	LiFe 🔲 📀

### Update Wombat: Option 1 - USB

(versions  $\geq$  30.2.1 and  $\leq$  30.2.5)



- 1. Extract the wombat-os.31.1.0.zip to a USB
- 2. Make sure the extracted folder does not have the same folder nested inside
- 3. Plug your USB into the Wombat
- 4. Select "Settings"

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	.Trash-1000				1/26/2024 6:00 PN	1	File folder			
	wombat-os-31	1.0			11/20/2024 12:17	PM	File folder			
-	wombat-os-31	1.0			12/19/2024 4:37 P	Μ	Compressed (z	tipped)	65,389	КВ
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#### **Update Wombat: Option 1 - USB**

(versions  $\ge$  30.2.1 and  $\le$  30.2.5)





Select update file 6. 7. Select "USB Update" 8. Select "Yes" 9. Wait for Wombat to reboot Home Camera View Language Update Channels 8  $\Box$ Calibrate J 6. Backup 7. Hide UI **\$**° Advanced 5 LiFe 🌅

Select "Update"

5.

Home	Ba	ck		
Select an update:				
wombat-os-31.1.0	0	USB Update Refresh		
į Home	* *	Back	•	
Select an update:				
wombat-os-31.1.0		USB Up Refre		7
* *	Home	1	Back	•
Select an	update:			
wombat		Update? Du sure you want to update using u 1.0?	wombat-	odate esh Jpdate

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- 2. Select "Motors and Sensors" -> "Create 3"
- 3. Ensure toggle is switched to Wifi
- 4. Check the "About" page
- 5. Ensure LAN doesn't say 192.168.186.3

Home	Back	. Home					
Create Connected State:	Wifi Ethernet	Wombat-fff Wombat v30.2.1 Copyright © 2012 - 2023 KISS Institute for Practical Robotics Network					
Create3 IP: Create 3 Sensor List	Create 3 Example Programs	Developers See All Developers See All Developers See All Developers SID: ffff-wombat Password: 66f0cc00 WiFi: 192.168.125.1 LAN: 192.168.123.14					
<u>ه</u> و	<u>ر</u>	LiFe 🛄 📀					

#### Update Wombat: Option 2 - Online (versions ≥ 30.1.1)



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- 1. Select "Settings"
- 2. Select "Update"
- 3. Be sure to be connected to Wi-Fi via Client Mode (slide 40) or connected by ethernet to a router
- 4. Select "Online Update"
- 5. Select "Yes"

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#### **Inverting Your Screen**





