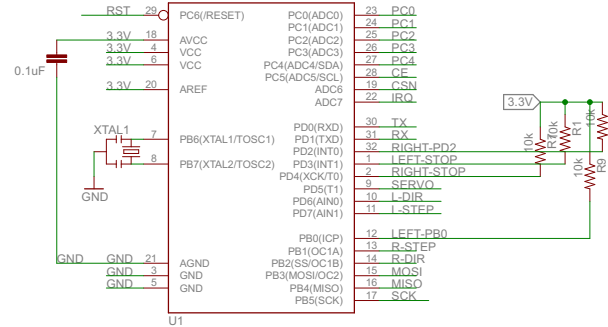
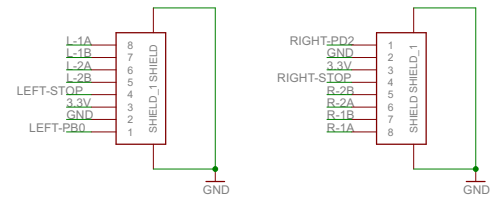


<https://gocupi.com> for project info
<https://github.com/brandonagr/gocupi> for the source code
<https://github.com/earthtown/gocupi-stl> for 3D printed part files.
gocupi main board stacks on to the GPIO of the Raspberry Pi.
This board uses a 12v power supply to power the stepper motors and supplies +5v source for the Raspberry Pi. The ATmega328P uses 3.3V logic to communicate with the Pi, the A3967 chips also use 3.3V logic. Commands/files are processed on the Pi using the gocupi source which is written in Go (<http://golang.org>). The data is passed to the ATmega328P which feeds the step and direction information to both A3967s which directly control the stepper motors.

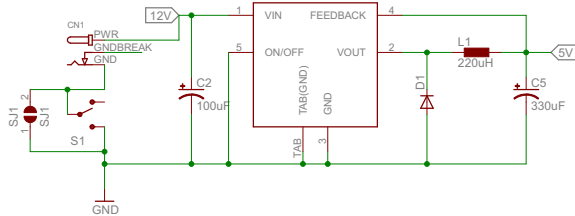
ATMega328P running the Arduino optiboot bootloader is connected to the Raspberry Pi GPIO serial pins for communication during normal use. Also connected to the SPI bus for programming from the Arduino IDE on the Pi.



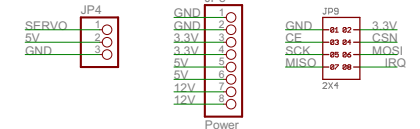
Two ethernet connectors provide easy connection to the stepper motors and sensors embedded in the motor mounts.



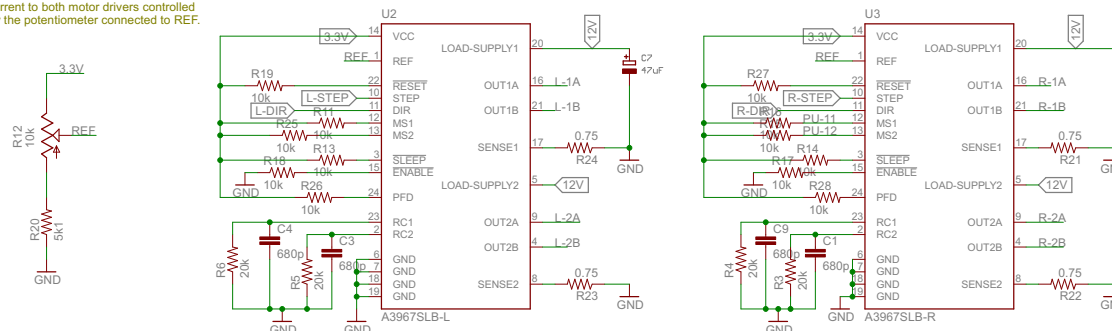
Switching power supply based on Texas Instruments TL2575.
Short SJ1 to bypass on/off switch.



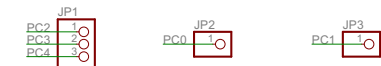
There is a 3 pin header for servo control on the gondola.
Various voltage levels broken out.
NRF24L01+ Header for wireless communication.



Current to both motor drivers controlled by the potentiometer connected to REF.



Unused IO broken out from ATmega328P.



					Tag	Name	<div>Brandon Dunson</div>
				Bearb.			
				Gepr.			
				zu Gerät		1	
				zu Anlage		Zeichnungs-Nr.	
Rev	Änderungs-Nr.	Tag	Name	gocupi_v1.1		Blatt 1/1 9/12/2016 5:25:54 PM	