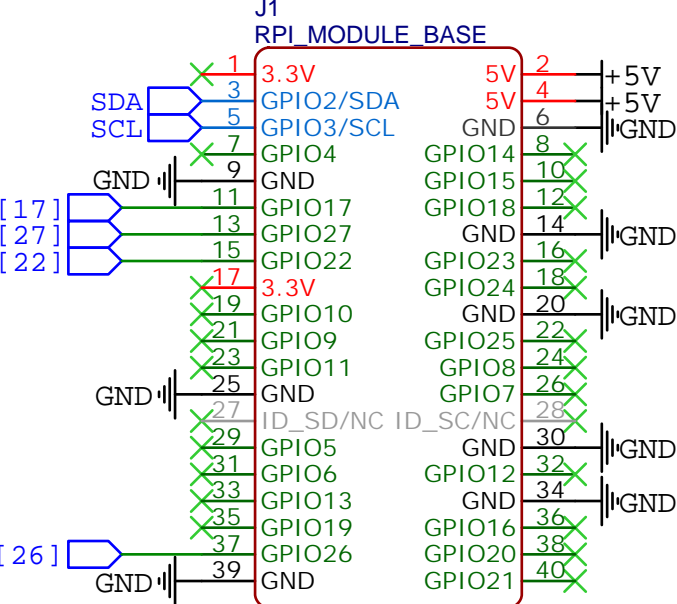
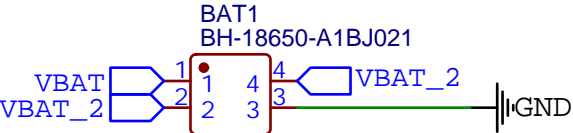


**RASPBERRY PI HEADER**  
2x20 Header matching the Raspberry Pi male header.

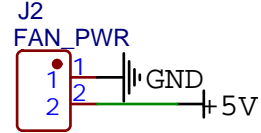


- Overall Design Specifications & Assumptions**
- Follows minimal assignment specification.
  - Includes the following modules:
    - Greyscale Module: based on Freenove/Sunfounder breakout.
    - Motors: 2WD (2-wheel drive) PyCar.
      - Motors are 7V4 controlled by an I2C breakout board.
    - Unspecified photointerruptor interpreted as an integrated one.
    - Battery power supply: VBAT != 5V0
      - No voltage converter between VBAT to 5V0 because it is beyond explicit assignment specs.
    - rPi Fan Pinout: Always on, included for fun

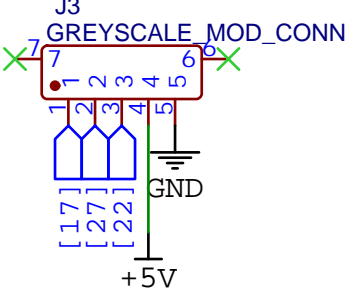
**2x 18650 Battery Holder**  
2x 18650 Battery holder connected in series to supply a nominal voltage of 7V4.  
Assignment specifications did not require to implement a Buck Converter w/ passives for a 5V0 net.



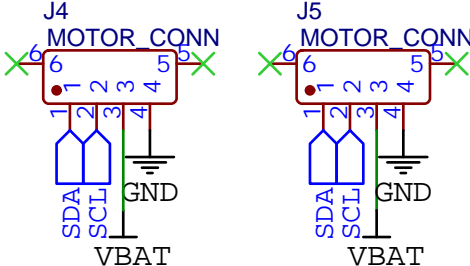
**RASPBERRY PI FAN HEADER (extra)**  
1x2 Header for an always on rPi 1x2 5V0 fan.



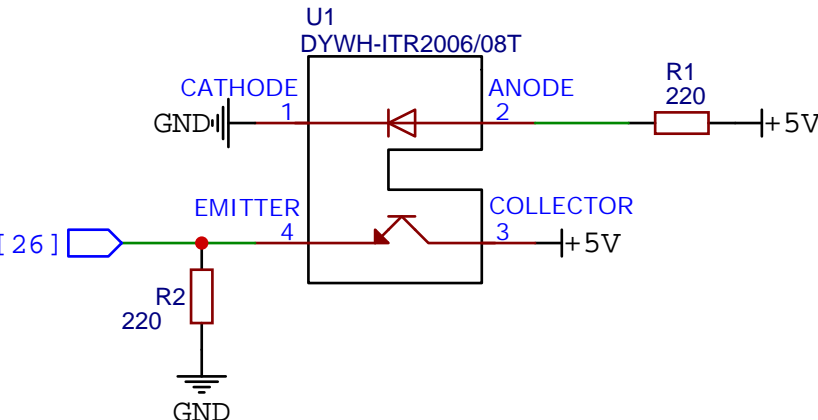
**GREYSCALE MODULE CONNECTOR**  
A connector connecting to FreeNove/Sunfounder 3-Ch Greyscale breakout board.



**MOTOR MODULE CONNECTORS (ASSUMING 2WD, 2 MOTORS)**  
A connector assuming its connects to motor breakout boards that take I2C control input, 7V4, and GND to appropriately actuate the motor.



**PHOTOINTERRUPTOR**  
A photointerruptor mentioned in the assignment specification; assumes the photointerruptor is always on.



**Datasheet:**  
<https://www.lcsc.com/datasheet/C42422350.pdf>

