

How to solve Motorcycle issues.... the nerdy way .. :)



Suzuki SV650s 2000

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The problem(s)

- Need more information !!!
- Oil temperature gauge none existent....
- Water temperature only as LED warning ...
- Gear changes ... I cannot count ... apparently
 - I find my self in the wrong gear some times...

Solution(s)

- Lots of after market parts available at different prices and qualities ... BUT THATS NOT FUN!
- Raspberry PI ... too overpowered ... yes I know
- Arduino it is then ...



Arduino Nano Front

- There are other platforms yes... but I use what I have.

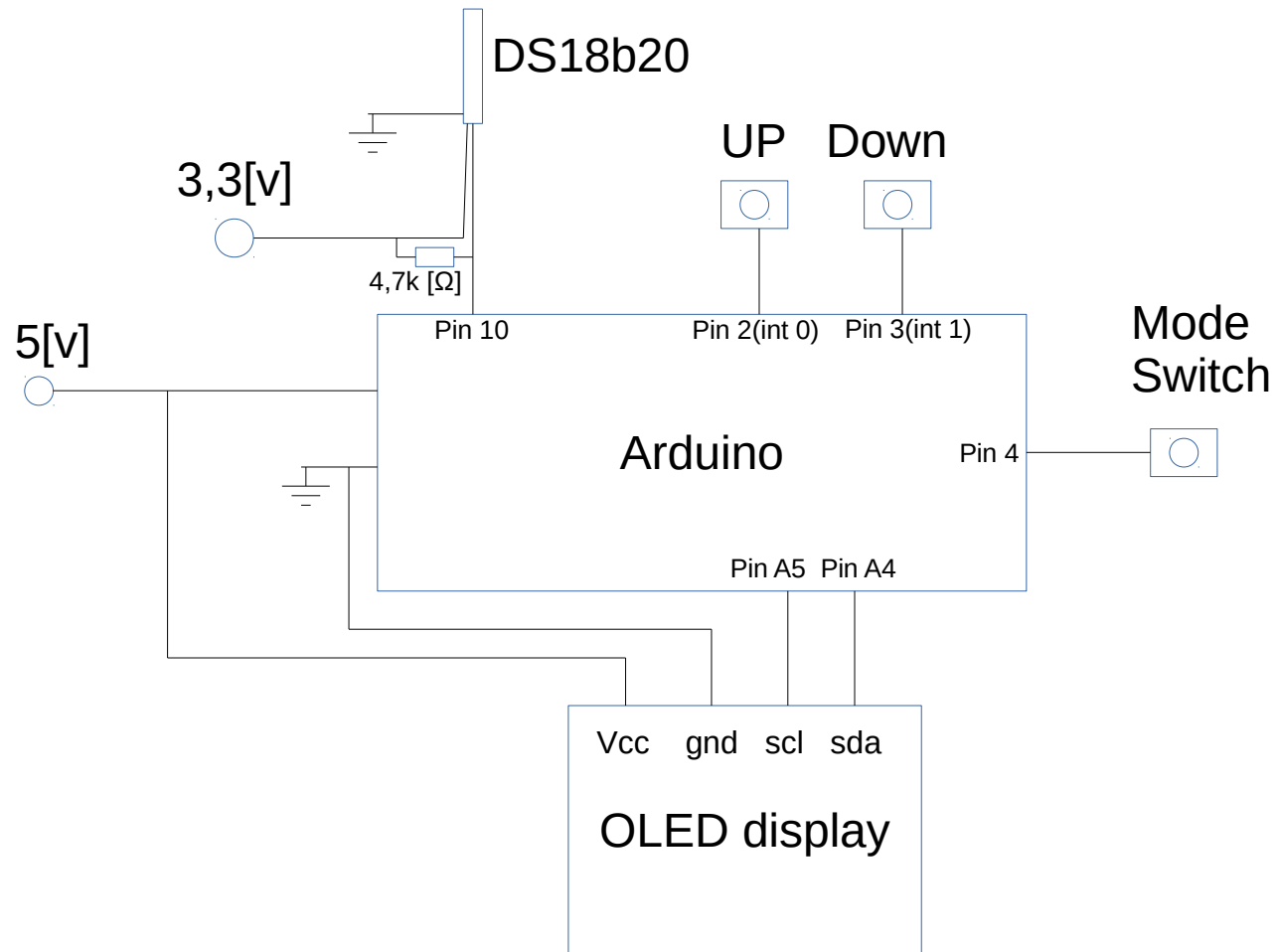
Components

- DS18B20 one wire temperature sensor
- 0.98" OLED display (gotta love ebay)
- Various Buttons, wires and other minor components.
- Oil temperature built into the oil drain plug (not in setup)

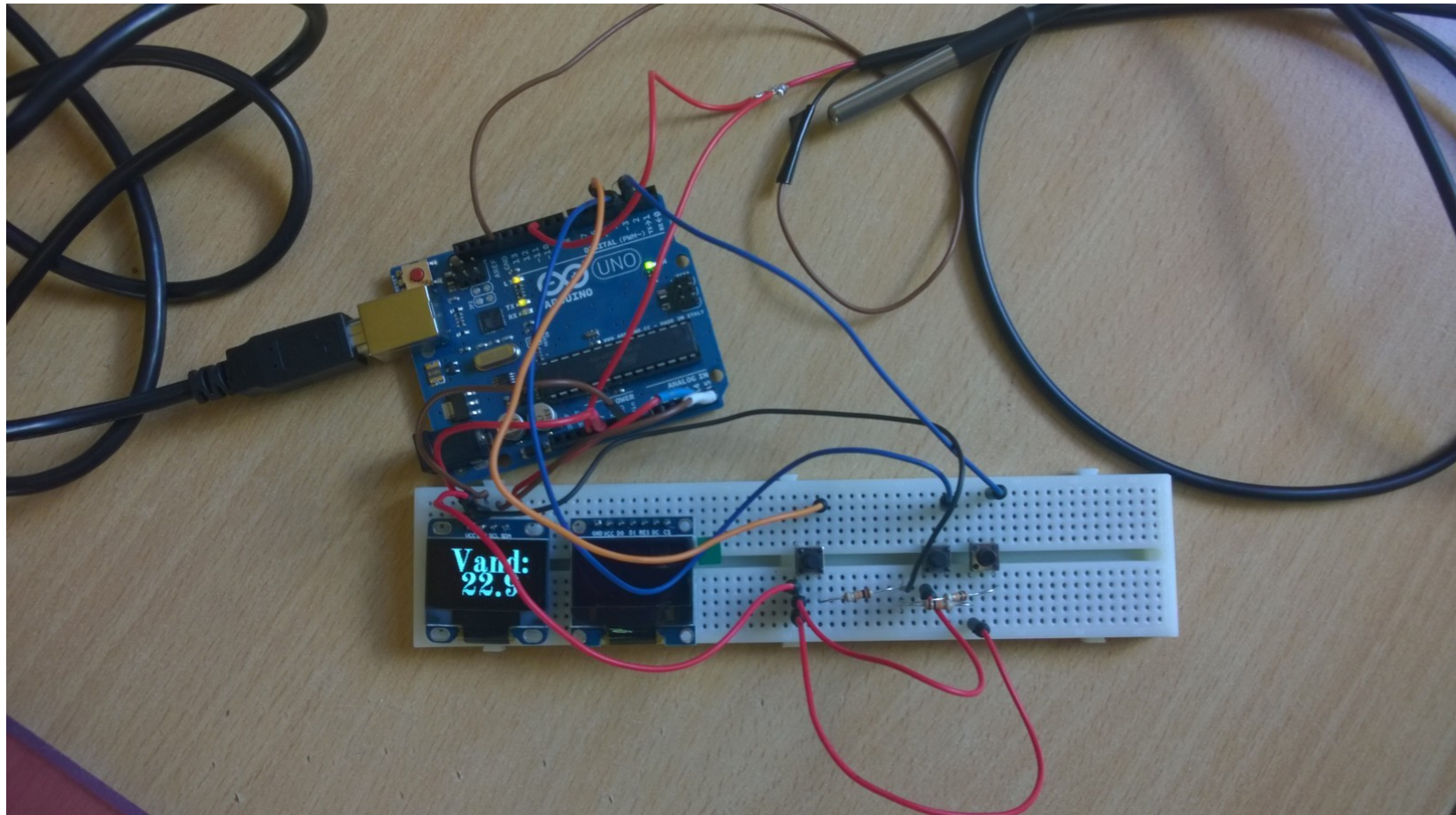
Plan

- 3 modes (for now)
 - Water Temp
 - Oil Temp
 - Gear indicator
- Display mode information on OLED screen

Plan



Progress... YAY ... what a mess!

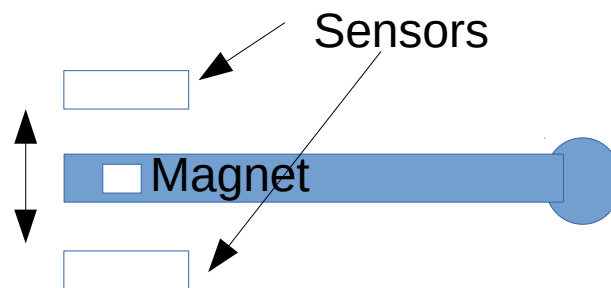


Libs used in Arduino code

- OLED display
 - U8g lib - <https://code.google.com/p/u8glib/>
 - When compiled uses about 15k bytes ... YIKES
 - I think I need to try and trim this lib a little...
- 1 Wire temp
 - One wire lib - <http://playground.arduino.cc/Learning/OneWire>

Gear indicator

- Simulated by two buttons, using interrupts
 - Debouncing is an issue ... :-/
- Final version. 2X magnetic sensors + 1 powerfull magnet.



- Sensors should generate a current and trigger the interrupt

Demo???



- Questions ?!