

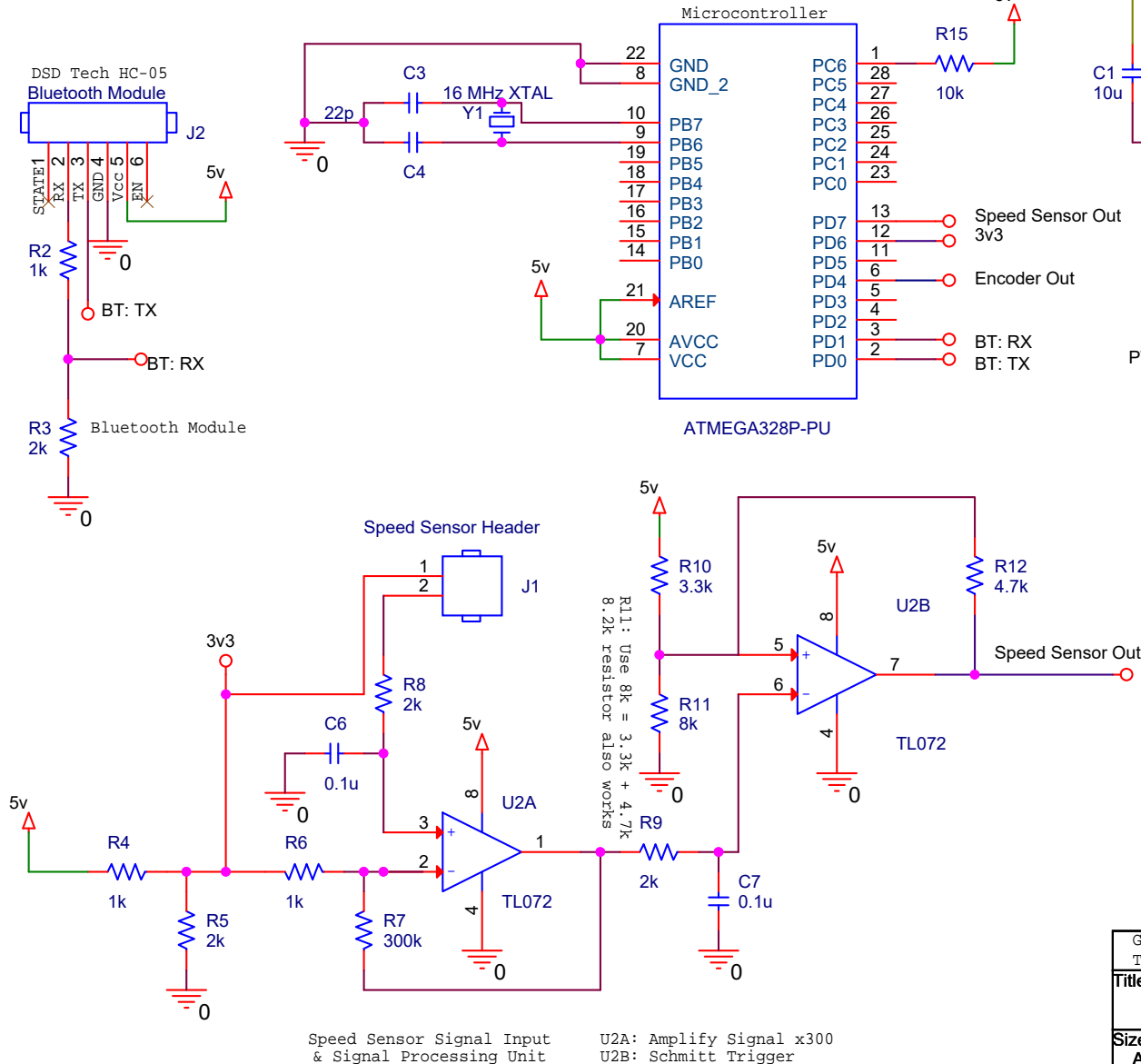
Parts:

x5 - 1k Resistor
x4 - 2k Resistors
x2 - 3.3k Resistors
x2 - 4.7k Resistors
x2 - 10k Resistors
x1 - 300k Resistor

x2 - 22pF Capacitor
x4 - 0.1uF Capacitor
x1 - 10uF Capacitor
x1 - 16 MHz Crystal
x1 - LED

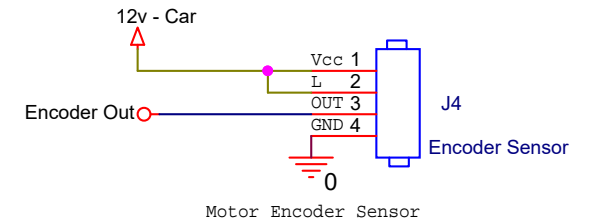
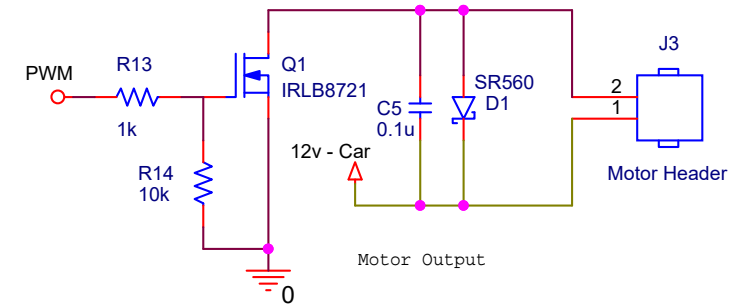
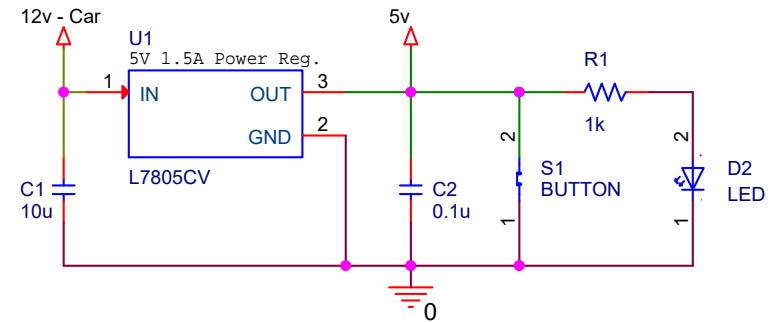
x1 - Power Regulator (Out 5V, Min: 250mA) [L7805CV]
x1 - Schottky Diode (Min. 15V, 2.5A) [SR560]
x1 - MOSFET/Transistor (Min. 15V, 2.5A) [IRLB8721]
x1 - TL072x Op-Amp (or equivalent)
x1 - ATmega328P-PU Microcontroller.

+ Can replace one 4.2k and one 3.3k resistor (tot 8k) for a single 8.2k resistor at R11



Connected Devices:

- BT Module: DSDTech HC-05
 - Speed Sensor: Rostra 250-4165
 - Motor: TSiny Motor TRS-775W
 - Encoder Sensor: EE-SX672 Photo Interrupter (\$20.00) elsewhere.
- * Buy the photo interrupter at adafruit.com (\$2.95). It is much more expensive.



GitHub: <https://github.com/AMHome/Mechanical-Speedometer-Converter>
This file can be found at GitHub > assets > Schematics > Schematics.pdf

| Title | | |
|----------------------------------|-------------------------|--------------|
| Mechanical Speedometer Converter | | |
| Size | Document Number | Rev |
| A | Alpha Version | v1.1 |
| Date: | Thursday, June 06, 2019 | Sheet 1 of 1 |