# Bill of Materials: FPS Project2.fzz

C:\Users\Joe\Documents\Fritzing\FPS Project2.fzz

Friday, August 5 2016, 18:34:13

## Assembly List

| **Label** | **Part Type** | **Properties** |
| --- | --- | --- |
| C1 | Ceramic Capacitor | capacitance 22pF; voltage 6.3V; package 100 mil [THT, multilayer] |
| C2 | Ceramic Capacitor | capacitance 22pF; voltage 6.3V; package 100 mil [THT, multilayer] |
| C3 | Ceramic Capacitor | capacitance 100nF; voltage 6.3V; package 100 mil [THT, multilayer] |
| D1 | Diode | variant pth; package diode-1n4001 |
| Delete\_PB | Pushbutton | package [THT] |
| Err | Red (633nm) LED | leg yes; color Red (633nm); package 5 mm [THT] |
| FPS Lines | Generic female header - 4 pins | pins 4; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| JP1 | Header 2 | variant 3.5mm\_lock; package screwterminal-3.5mm-2\_lock |
| Lm2596 IN+ | Generic female header - 1 pins | pins 1; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| LM2596 IN- | Generic female header - 1 pins | pins 1; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| LM2596 OUT+ | Generic female header - 1 pins | pins 1; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| LM2596 OUT- | Generic female header - 1 pins | pins 1; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| Lock | Solenoid |  |
| Mode\_switch | Toggle Switch | package THT; switching circuit SPDT |
| Ok1 | Yellow (595nm) LED | leg yes; color Yellow (595nm); package 5 mm [THT] |
| Ok2 | Yellow (595nm) LED | leg yes; color Yellow (595nm); package 5 mm [THT] |
| Ok3 | Yellow (595nm) LED | leg yes; color Yellow (595nm); package 5 mm [THT] |
| PB header | Generic female header - 2 pins | pins 2; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| Q1 | NPN-Transistor | type NPN (EBC); package TO92 [THT] |
| Q2 | PNP-Transistor | type PNP (EBC); package TO92 [THT] |
| Q3 | NPN-Transistor | type NPN (EBC); package TO92 [THT] |
| Q4 | npn-Powertransistor | type NPN; package TO220 [THT] |
| R1 | 1kΩ Resistor | resistance 1kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R2 | 1kΩ Resistor | resistance 1kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R3 | 470Ω Resistor | resistance 470Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R4 | 470Ω Resistor | resistance 470Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R5 | 470Ω Resistor | resistance 470Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R6 | 470Ω Resistor | resistance 470Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R7 | 470Ω Resistor | resistance 470Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R8 | 2.2kΩ Resistor | resistance 2.2kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R9 | 2.2kΩ Resistor | resistance 2.2kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R10 | 1kΩ Resistor | resistance 1kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R11 | 560Ω Resistor | resistance 560Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R12 | 10kΩ Resistor | resistance 10kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| R13 | 2.2kΩ Resistor | resistance 2.2kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| Rdy | Green (570nm) LED | leg yes; color Green (570nm); package 5 mm [THT] |
| Spkr | Piezo Speaker |  |
| U1 | atmega328 | variant dip28 THT; version Atmega328-20PU; type ATMEGA328; package dip |
| Y1 | CRYSTAL | variant hc49us; package hc49us |

## Shopping List

| **Amount** | **Part Type** | **Properties** |
| --- | --- | --- |
| 2 | Ceramic Capacitor | capacitance 22pF; voltage 6.3V; package 100 mil [THT, multilayer] |
| 1 | Ceramic Capacitor | capacitance 100nF; voltage 6.3V; package 100 mil [THT, multilayer] |
| 1 | Diode | variant pth; package diode-1n4001 |
| 1 | Pushbutton | package [THT] |
| 1 | Red (633nm) LED | leg yes; color Red (633nm); package 5 mm [THT] |
| 1 | Generic female header - 4 pins | pins 4; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| 1 | Header 2 | variant 3.5mm\_lock; package screwterminal-3.5mm-2\_lock |
| 4 | Generic female header - 1 pins | pins 1; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| 1 | Solenoid |  |
| 1 | Toggle Switch | package THT; switching circuit SPDT |
| 3 | Yellow (595nm) LED | leg yes; color Yellow (595nm); package 5 mm [THT] |
| 1 | Generic female header - 2 pins | pins 2; row single; package THT; hole size 1.0mm,0.508mm; form ♀ (female); pin spacing 0.1in (2.54mm) |
| 2 | NPN-Transistor | type NPN (EBC); package TO92 [THT] |
| 1 | PNP-Transistor | type PNP (EBC); package TO92 [THT] |
| 1 | npn-Powertransistor | type NPN; package TO220 [THT] |
| 3 | 1kΩ Resistor | resistance 1kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| 5 | 470Ω Resistor | resistance 470Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| 3 | 2.2kΩ Resistor | resistance 2.2kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| 1 | 560Ω Resistor | resistance 560Ω; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| 1 | 10kΩ Resistor | resistance 10kΩ; bands 4; tolerance ±5%; package THT; pin spacing 400 mil |
| 1 | Green (570nm) LED | leg yes; color Green (570nm); package 5 mm [THT] |
| 1 | Piezo Speaker |  |
| 1 | atmega328 | variant dip28 THT; version Atmega328-20PU; type ATMEGA328; package dip |
| 1 | CRYSTAL | variant hc49us; package hc49us |

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