| | Ро | wer Budget-Bra | dley Pollock | | | | |
|---------------------------|------------------------------|-------------------|------------------------------|--------------------------------------|----------------|---------|-------|
| Student: | Bradley Pollock | | | | | | |
| Project Name: | Interactive STEM Exhibit for | | | | | | |
| Team: | 20 | 01 | | | | | |
| Version: | | 1 | | | | | |
| | | | | | | | |
| | · | | Supply | | Absolute | Total | |
| | | | Voltage | | Maximum | Current | |
| All Major Components | Component Name | Part Number | Range | # | Current | (mA) | Unit |
| | PIC18 Microcontroller | PIC18F27Q84 | 1.8V-5.5V | 1 | 350 | 350 | mA |
| | Stepper motor | 35BYHJ30-36A | 12V | 1 | 259 | 259 | mA |
| | Stepper motor driver | IFX9201SG | -0.3-40V | 2 | 13 | 26 | mA |
| | 3.3V regulator | LM2575D2T-3.3R4G | <45V | 1 | 3000 | 3000 | mA |
| | - | " | Supply | , | Absolute | Total | |
| | | | Voltage | | Maximum | Current | |
| "+12V Power Rail" | Component Name | Part Number | Range | # | Current | (mA) | Unit |
| | Stepper motor | 35BYHJ30-36A | 12V | 1 | 259 | 259 | mA |
| | 3.3V regulator | LM2575D2T-3.3R4G | <45V | 1 | 3000 | | |
| | | | | | Subtotal | 259 | mA |
| | | | | 9 | afety Margin | 25% | |
| | | | Total Curr | rent Required o | | 323.75 | mA |
| | | | | | | 020.70 | |
| c1. Regulator or Source | Triad 12V Wall Supply | WSU120-3000 | 12V | 1 | 3000 | 3000 | mA |
| | | 1 | Total Remaining Curr | ent Available d | on +12V Rail | 2676.25 | |
| | | | Supply | Maximum | | Total | |
| | | | Voltage | | Current | Current | |
| "+3.3V Power Rail" | Component Name | Part Number | Range | # | (mA) | (mA) | Unit |
| | PIC18 Microcontroller | PIC18F27Q84 | 1.8V-5.5V | 1 | 350 | 350 | • |
| | Stepper motor driver | IFX9201SG | -0.3-40V | 2 | 13 | | mA |
| | Stepper motor unver | 11 7020100 | 0.5 40 (| | Subtotal | 376 | |
| | | | | | Safety Margin | 25% | ША |
| | | | Total Curre | Total Current Required on +3.3V Rail | | | mA |
| | | | Total Curre | in Negunea o | II TO.OV INAII | 94 | 111// |
| c2. Regulator or Source | | + | | | | | |
| Choice | 3.3V regulator | LM2575D2T-3.3R4G | 3.3V | 1 | 3000 | 3000 | mΑ |
| | 3.5 v regulator | EMIZOTOBET G.ORTE | Total Remaining Curre | _ | | 2906 | |
| | | | rotal Romaning Julie | A fallable U | Absolute | 2500 | |
| | | | Supply | | Maximum | Total | |
| | | | Voltage | Output | Current | Current | |
| External Power Source 1 | Component Name | Part Number | Range | Voltage | (mA) | (mA) | Unit |
| Power Source 1 Selection | Triad 12V Wall Supply | WSU120-3000 | 100-240VAC | 12V | 3000 | 3000 | |
| 1 ower source i selection | Thad 12 v viall Supply | 1100120 0000 | 100 240 070 | 12 V | 3000 | 3000 | 11111 |
| | 3.3V regulator | LM2575D2T-3.3R4G | <45V | 3.3V | 3000 | 3000 | mA |
| | J.JV TEGUIATOI | | naining Current Available o | | | | mA |
| | | ı otal Reli | ianınıy Current Available öl | II EXLEITIAI POV | iei Source T | U | шч |