SECTION 1: POWER SUPPLY (Input → Regulation)

GND

J1
Barrel_Jack

C5
0.33uF

C3
0.1uF

R2
10k

D1
LED

SW2
SW_SPST

LM7805_TO220
U5

VI · GND · VO

SECTION 2: CLOCK GENERATOR (555 Timer Oscillator)

+5V

R10
100k

C4
0.01uF

SW1
SW_SPST

U1
NE555D

TR · VCC · Q
CV · DIS
R · GND · THR

R1
10k

DIS

Q

TR/THR

GND

GND

GND

COUNTER (Random Number Generator)

+5V

U2
74LS90

CP0 · VCC · Q0
CP1..3 · Q1
R0(1) · Q2
R0(2) · Q3
R9(1)
R9(2) · GND

Q0
Q1
Q2
Q3

U6A
74LS11

U6D
74LS11

GND · VCC

GND

BCD DECODER (Binary → 7-Segment)

+5V

U3
74LS47

A · VCC · a
B · b
C · c
D · d
LT · e
BI · f
RBI · g
GND

R5 220

U4
SC39-11EWA

A
B
C
D
E
F
G
DP · CC · CC

GND

DISPLAY OUTPUT

Github

Electronic dice circuit with 555 timer and 7-segment display. PCB
Vladyslav Hirchuk — git: SoloScriptSage
Sheet: /
File: digital_dice.kicad_sch
Title: Digital Dice
Size: A4 | Date: 2025-11-09 | **Rev: 1.0**
KiCad E.D.A. 9.0.2 | Id: 1/1

SOLOSCRIPTSAGE