#include <Wire.h>

#include <LiquidCrystal\_I2C.h>

#include <Keypad.h>

LiquidCrystal\_I2C lcd(0x27, 20, 4);

int runs = 0;

int wickets = 0;

int overs = 0;

int balls = 0;

const byte ROWS = 4;

const byte COLS = 4;

char keys[ROWS][COLS] = {

{'1','2','3','A'},

{'4','5','6','B'},

{'7','8','9','C'},

{'\*','0','#','D'}

};

byte rowPins[ROWS] = {9, 8, 7, 6};

byte colPins[COLS] = {5, 4, 3, 2};

Keypad keypad = Keypad(makeKeymap(keys), rowPins, colPins, ROWS, COLS);

void setup() {

lcd.init();

lcd.backlight();

lcd.setCursor(0, 0);

lcd.print(" Cricket Scoreboard: ");

updateDisplay();

}

void loop() {

char key = keypad.getKey();

if (key) {

if (key >= '0' && key <= '6') {

runs += (key - '0');

nextBall();

} else if (key == 'A') {

if (wickets < 10) wickets++;

nextBall();

} else if (key == 'B') {

nextBall();

} else if (key == '\*') {

runs = 0;

wickets = 0;

overs = 0;

balls = 0;

}

updateDisplay();

delay(200);

}

}

void nextBall() {

balls++;

if (balls == 6) {

balls = 0;

overs++;

}

}

void updateDisplay() {

lcd.setCursor(0, 1);

lcd.print("Runs: ");

lcd.print(runs);

lcd.print(" Wkts: ");

lcd.print(wickets);

lcd.setCursor(0, 2);

lcd.print("Overs: ");

lcd.print(overs);

lcd.print(".");

lcd.print(balls);

lcd.setCursor(0, 3);

lcd.print("[0-6]=Run A=W B=Ball");

}