Inventory and Ideas

What do we have?

Micro-controllers

Arduino UNO/Nano   ESP32   Raspberry Pi Pico

Sensors and Input

Listance sensor   Line following   Servos   Buttons   IMU6050

Motors

DC wheel   Brushless propellor   9g Servo   Nema 17 Stepper
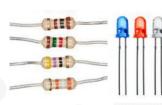
Basic Electronics

Breadboards   wires   resistors   LEDs   capacitors   555 timers

Remote Control

IR Recv/Trans   RC PWM Recv/Trans   Wi-Fi/Bluetooth via ESP32

Materials

MDF Acrylic PLA Cardboard bolts/nuts glue

Tools and Equipment

Screwdrivers Craft Knives Spanners Multimeters

soldering iron laser cutter 3D printer

Note: Anything you make must be capable of dissasembly with the exception of the "materials" and "basic electronics" categories, but dont be wasteful

What could you make?

- Remote controlled - Car / Plane / Robot / Machine

- Test rig to learn about and use a device

- Automated robot - line following / obstacle avoidance / other

- Mini game - pinball machine / gameboy

- Interesting motion - self balancing ball or robot / walking robot