

# SAFETY RULES

**BOAT RACING 2025** 

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### 1. RC Boat Handling Safety Measures

It is important to observe safety rules when working with RC (radio-controlled) boats. Whether during assembly, programming, or racing, paying attention to safety is crucial for protecting yourself and those around you. Below are the main safety measures and rules to follow when working with RC boats.

### 2. Pinch Points

Pinch points occur at the contact points of moving parts. In RC boats, these can be motors, wheels, gears, propellers, or other mechanisms.

### 2.1 Personal safety rules regarding pinch points:

- The boat must be off: Turn off the motor or other mechanisms during repair or adjustment.
- **Bundle long wires:** Bundle and secure your wires to prevent them from getting tangled in moving propellers or other parts.
- **Remove accessories:** Prevent jewelry or long accessories from getting caught in propellers and other mechanisms.
- **Keep fingers away:** Keep your hands and fingers away from moving parts.
- Seek medical attention in case of injury: If an injury occurs as a result of pinching, seek immediate medical attention.

#### 2.2 Safety rules for pinch points:

- 1. **Block motors:** Use special tools to immobilize propellers and other rotating parts when working on the boat.
- 2. **Check all mechanisms:** Check propellers, gears, and chains, ensuring they move freely and are unobstructed.

### 3. Sharp Edges

Sharp edges on RC boats can result from cut materials, cracked parts, or tools used during repair.

#### 3.1 Personal safety rules regarding sharp edges:

- Sand sharp edges: Ensure sharp parts are made harmless before use.
- Protect from cuts: If any cut or scratch occurs, seek immediate medical attention.
- Check materials: Carefully inspect metal or plastic parts for cracks and sharp edges.

### 4. Flying Residuals

Flying residuals from materials and mechanisms can pose a hazard during boat repair or operation.

#### 4.1 Safety measures:

- **Use eye protection:** Wear safety glasses when propellers are operating or during other high-speed movements.
- Additional protection: Use additional protective equipment to protect your hands and face.

### 5. Falling Objects

Although RC boats are lightweight, they can pose a hazard if unattended or unsecured.

### 5.1 Rules regarding falling objects:

- Wear shoes: Closed-toe shoes can reduce the impact of heavy boats like robots.
- The boat must be firmly secured: When working with the boat, place it on a firm surface or use special holders.

### 6. Extreme Temperature

RC boat motors or batteries can generate high temperatures during operation.

#### 6.1 Safety rules:

- Cool motors: Prevent motors from overheating during prolonged use.
- Check batteries: Replace swollen or damaged batteries.
- Use appropriate adapters: Charge batteries from appropriate power sources.

These rules are important for ensuring a safe working environment during RC boat projects and races. Adhere to safety and always be careful!

### 7. Battery Handling Safety

RC boat batteries (especially LiPo or Li-ion batteries) are the main source of energy. If these batteries are not handled correctly, serious hazards, including fire or explosion risks, can arise. It is important to follow the safety rules below when working with batteries:

#### 7.1 Personal safety rules regarding batteries:

• **Do not use swollen or damaged batteries:** Do not operate swollen, broken, or discolored batteries. Recycle them safely.

- **Use an appropriate charger:** Always use chargers designed for the batteries. Incorrect devices can cause batteries to overheat or catch fire.
- Monitor the charging process: Do not leave batteries unattended while charging. Place the battery charger on a non-flammable surface and carefully monitor the process.
- **Observe storage rules:** Store batteries in a dry, cool place and away from flammable materials. When not in use for a long time, store batteries partially charged.

#### 7.2 Safety rules for batteries when working with RC boats:

- **Check battery connection:** When connecting the battery to the RC boat, ensure the cable is firmly connected and not incorrectly connected.
- **Consider water:** Since RC boats are used in a water environment, ensure that batteries and electrical systems are insulated against water. Water can cause short circuits or damage to batteries.
- **Monitor temperature:** Monitor batteries for excessive heating during prolonged operation or high-power operation. Allow overheated batteries to cool down.

### 7.3 Safety measures during battery repair and intervention:

- **Keep away from foreign objects:** Prevent metal objects from accidentally touching battery terminals (can cause short circuits).
- **Be careful during assembly and repair:** Avoid opening or modifying the battery. Battery intervention should only be performed by specialists.
- Prevent short circuits: Use insulated tools when repairing batteries.

#### 7.4 Safety rules for emergencies:

- Take action in case of fire: Do not use water if a battery catches fire. Instead, use sand, a fire extinguisher, or special battery fire blankets.
- **Protect from toxic gases:** In case of toxic gas leakage from damaged batteries, move to a well-ventilated environment and intervene immediately.

Batteries are one of the main elements of the RC boat system, but serious problems can arise if safe use and maintenance are not ensured. By following these rules, protect yourself and those around you when working with batteries.