🎯Model2Icon – Unity Icon Generator Tool

Welcome to **Model2Icon** – the ultimate icon generation tool for Unity developers. Easily convert your 3D models into high-quality 2D icons with transparency, rotation control, and sprite-ready output.

🚀 Getting Started

1. **Import the Tool**: Download and import the `Model2Icon` package into your Unity project.

2. **Open the Tool**: From the Unity menu, go to **Tools > Model2Icon** to launch the window.

🛠️ Using the Tool

1. Select a 3D Model

- Drag and drop any 3D prefab or GameObject from your project into the **Target Model** field.

2. Adjust Camera & Render Settings

- **Rotation**: Set the viewing angle for the icon.

- **Padding**: Controls how far the camera pulls back from the model.

- **Background Color**: Choose a background color (including transparent alpha).

- **Transparent Background**: Toggle transparency (works with PNG format only).

3. Output Settings

- **Resolution**: Choose between 32x32 and 4096x4096.

- **Format**: PNG (supports transparency) or JPG.

- **File Name**: Enter a custom file name for export.

4. Preview the Icon

- When a model is selected, the tool **automatically generates a live preview**.

- The preview updates in real-time as settings are modified.

5. Save the Icon

- Click 💾 **Save Icon** to export.

- You'll be prompted to choose a save location.

- Once saved, the icon is automatically imported into Unity as a **Sprite**.

🎨 Features

- 🧱 Convert any 3D GameObject into a PNG or JPG icon

- 🎨 Transparent background support

- 🖼 Real-time icon preview window

- 🔄 Adjustable camera padding, rotation, and background color

- 📐 Output resolutions from 32x32 to 4096x4096

- 💾 Auto-imports icons as Sprites

- 🧠 Simple and intuitive editor UI

🔧 Customization

- Set exact **rotation** angles for the model.

- Tweak **camera framing** with padding.

- Choose any **background color** (including full alpha).

- Pick the desired **resolution and format** for export.

📌 Use Cases

- Inventory icons for RPGs and survival games

- Skill or ability icons for characters

- UI buttons or menus from existing 3D assets

- Fast prototyping of stylized 3D UI elements

💾 Saving and Importing

- Icons are saved as `.png` or `.jpg` to your chosen path.

- PNG format retains transparency.

- Saved files inside the **Assets/** folder are automatically imported.

- The tool sets them up as **Sprites** with transparency enabled.

❓ Troubleshooting

- **No preview showing**: Ensure a 3D model is selected.

- **Black background on PNG**: Enable *Transparent Background* toggle.

- **Preview not updating**: Slightly adjust rotation or padding.

- **Blurry or low-quality**: Increase resolution (e.g., 1024 or 2048).

- **Not appearing as Sprite**: Ensure saved inside the `Assets/` folder.

🧩 Requirements

- Unity 2020.3 LTS or newer

- Supports URP, HDRP, and Built-in render pipelines

- Editor-only tool – no runtime dependencies

💡 Tips for Best Results

- Use PNG format for UI icons requiring transparency.

- Experiment with angles to highlight model silhouettes.

- Use orthographic projection for clean and consistent UI icons.

- Group your 3D model under an empty GameObject to better control rotation and scaling.