

R1_Printing_Readme

R1 Robot 3D Printing README

The R1 robot consists of **33 individual 3D printed parts**. Each part has been specifically designed to print without the need for supports. There are no special requirements for printing; standard settings with a **0.2mm layer height** and **20% infill** will be sufficient for all printed components. Additionally, all **.stl** files are pre-oriented for optimal printing.

Minimum Printer Size Required: 256mm x 256mm x 256mm

The parts are organized into six folders. Below is a checklist of each folder and its associated parts:

Base

- **Base_Plate**
- **Gear_Rail** - *(For better movement, a smaller layer height is recommended)*
- **Motor_Mount**
- **Rail_Slider** - *(For better movement, a smaller layer height is recommended)*
- **Rear_Base_Mount**
- **Robo_Base**
- **Robo_Foot** - *(Print four of these)*
- **Ten_Tooth_Gear** - *(For improved gear function, use a fine setting and small layer height)*

Clamps

- **Rear_Projector_Clamp**
- **Side_Projector_Clamp** - *(Print two of these)*
- **Top_Projector_Clamp**

Head Frame

- **Face_Bezel** - *(Higher infill recommended for structural integrity)*
- **Front_Crossmember**
- **Head_Frame** - *(Print two of these; higher infill recommended for strength)*
- **Rear_Crossmember**

Mirrors

- **Rear_Mirror_Bezel**
- **Rear_Mirror_Bridge**
- **Rear_Mirror_Support**
- **Top_Mirror_Bezel**
- **Top_Mirror_Bridge**

Mounts

- **Front_Post_Mount**

- **Side_Post_Mount** - *(Print two of these)*

Posts

- **Arduino_Mount**
- **Arduino_Side_Post**
- **Computer_Mount**
- **Computer_Side_Post**
- **Front_Post**
- **Top_Computer_Bracket**