System to heat hot glue

Heat Glue

Mechanism to receive one glue stick

Accept one glue stick

Heat Glue device

Heat Glue

Inject Glue device

Inject Glue

Battery Attachment

Device to attach battery

Device to be a switch mechanism

Switch Mechanism to control glue rate

Child Lock mechanism

Child Lock

Hot glue eject mechanism

Eject hot glue

**Function to physical domain map:**

Diagram

Description automatically generated**Concept Generation:**

1. Battery Attachment device.
2. Switch mechanism.
3. Glue grip mechanism to accept one glue stick (heat glue, inject glue)
4. Child Locking device.
5. Gluing rate controlling device.

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| --- | --- | --- | --- | --- | --- |
| **S**  **No** | **Battery Attachment** | **Switch Mechanism** | **Accept one glue stick.** | **Child Locking device** | **Gluing rate controlling device** |
| 1 | Snap on battery pack on back. | Push button switch | Two-piece grip | Cover for switch mechanism | Changing nozzle tip |
| 2 | Slide on battery pack on back | Side mounted switch | Concentric rings | Mechanical stop so switch cannot be triggered. | A rotating mechanism to increase or decrease nozzle size. |
| 3 | Battery pack slides in on side with cover. | Center mounted trigger mechanism. | One moving pad and a friction stop for the other side. | Electronic Stop for the switch | Small flap that can cover a part of the nozzle area. |
| 4 | Battery slide on pack but mounts with screws | Side mounted trigger mechanism | Split rings that come together like one concentric ring | Squeeze and twist mechanism to cover the switch. |  |
| 5 | Inbuilt lithium-ion battery | Shake to switch |  | Hard push on the lock button to turn on. |  |
| 6 |  | Knob switch |  | Two steps to unlock the glue gun. |  |
| 7 |  | Selection screen switch |  | Stop when detecting long-time running. |  |