

## This ULU

The *ULU.36 Launch control* has a large red launch button and an enabling key. It can be used to start exiting experiments or even – in combination with the *ULU.35 Ignition box* – a model rocket.

## Used parts

The following standard parts are used:

- 1x casing 80 x 25 x 25mm;
- 1x 2mm signal connector;
- 1x black O-ring 9 x 5 x 2mm;
- 1x power connector;
- 2x 3mm round LED ;
- 2x resistor to dim the LED;
- 2x LED holder;

The following extra parts are used:

- 1x 19mm  $\varnothing$  red launch button;
- 1x 12mm  $\varnothing$  key button;
- 2x large 22 x 18 x 2 mm O-rings.

## Construction

The standard ULU specifications are applicable as specified in the datasheet *ULU.00 – Common specifications*.

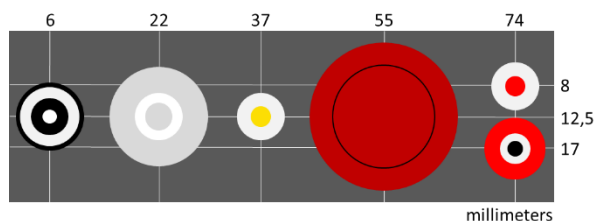


Figure 1 – Drill guide

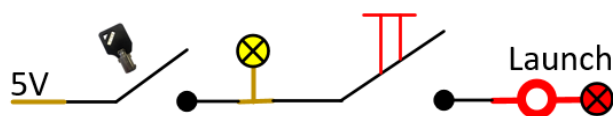


Figure 2 – Schematic (led ground & resistors are left out)

The large launch button is slightly too big for the casing. Therefore, two rubber O-rings are used to heighten the button, as well attach the button to the casing.



Figure 3 – ULU inside



Figure 4 – Finished ULU

## Usage

The launch control can be used to start exiting experiments. Only when the key switch is turned and the yellow LED is on, the red button can be used to give a launch signal (red connector and LED).

When the *ULU.11 Clock generator* and *ULU.12 Up- & down counter* are used, a countdown clock can be made. In combination with the *ULU.35 Ignition box* – a model rocket can be launched.

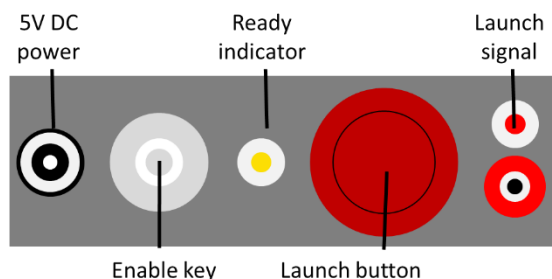


Figure 5 – Controls and connectors



Figure 6 – Launch related ULUs