

```
//status: SEEMING TO WORK
```

```
module Edge_Detector(
```

```
    input clk, input btn,
```

```
    output out
```

```
);
```

```
    wire feed, temp;
```

```
    FDRE #(.INIT(1'b0)) flip_flop1
```

```
(.C(clk), .R(1'b0), .CE(1'b1),
```

```
.D(btn), .Q(feed));
```

```
    assign temp = (btn & !feed);
```

```
//src1
```

```
    FDRE #(.INIT(1'b0)) flip_flop2
```

```
(.C(clk), .R(1'b0), .CE(1'b1),
```

```
.D(temp), .Q(out));
```

```
endmodule
```