

Instant-Cast Abilities with Auto-Attacks

Instant-Cast Abilities with Auto-Attacks														
Attacker Stats														
Attacker Preset	Offensive Stat [2]	Offensive Power	Weapon Skill	+Armor Pen % [4]	Strikethrough %	Block Strike. %	Crit Chance % [7]	Crit Damage % [1]	Damage Buff %	AtkSpd Buff % [1]	Mainhand DPS [1]	Attack Speed [12]	Weapon	
Input this row ->	Custom							45					Offhand DPS [15]	Attack Speed [16]
Target Stats														
Target Preset [17]	Hitpoints	Armor	Magic Resist	-Armor Pen % [1]	Defensive Stat [1]	Toughness	Initiative [20]	Crit Reduct % [2]	-Crit Dmg % [22]	Avoidance % [23]	Block Rating [24]	Block % [25]	Input if using Offhand weapon ->	
Input this row ->	Construct												HP / 4 sec [26]	
Ability Stats														
Ability Base [28]	Stat Coefficient [1]	wDPS Coeff [30]		Damage Type [3]	Ability Base Calculator [27]				Tooltip Damage	Stat Coefficient [1]	wDPS Coeff [34]	Offensive Stat [3]	Weapon DPS [34]	Ability Base:
Input this row ->				Physical									0.0	0
Results														
	ArmorMitigation:	75.00%	ResistMitigation:	27.98%	Hit Chance: [39]	76.20%	Actual Crit %: [40]	0.00%						
	Auto-Attack	AADmg = (OffDefBonus/10+wDPS)*wSpeed*DamageMods												
	Mainhand	Flat Damage: [41]	0	Effect Damage:	0	Effect DPS: [43]	0				Burst Damage:	Total DPS: [45]		
	Offhand	Flat Damage: [46]	0	Effect Damage:	0	Effect DPS: [48]	0				0	0		
	Ability	Admg = (OffDefBonus/5*Coeff+wDPS+aBase)*DamageMods										Time to Kill: [49]		
		Flat Damage: [50]	0	Effect Damage:	0	Effect DPS: [52]	0					Missing Data!		

Channeled Abilities (no Auto-Attacks)

Channeled Abilities (no Auto-Attacks)														
Attacker Stats														
Attacker Preset	Offensive Stat [5]	Offensive Power	Weapon Skill	+Armor Pen % [5]	Strikethrough %	Block Strike. %	Crit Chance % [5]	Crit Damage % [1]	Damage Buff %		Weapon Based?	wDPS Coeff [63]	Weapon	
Input this row ->	Custom							45			Yes	1.00	Mainhand DPS [64]	Offhand DPS [67]
Target Stats														
Target Preset [68]	Hitpoints	Armor	Magic Resist	-Armor Pen % [6]	Defensive Stat [7]	Toughness	Initiative [71]	Crit Reduct % [7]	-Crit Dmg % [73]	Avoidance % [74]	Block Rating [75]	Block % [76]	Input if Weapon Based ->	
Input this row ->	Construct												HP / 4 sec [77]	
Ability Stats														
Ability Base [79]	Stat Coefficient [1]	Hits Per Cast [8]	Channel Time [8]	Damage Type [8]	Ability Base Calculator [78]				Tooltip Damage	Stat Coefficient [1]	wDPS Coeff [86]	Offensive Stat [8]	Weapon DPS [86]	Ability Base:
Input this row ->				Physical									0.0	0
Results														
	ArmorMitigation:	75.00%	ResistMitigation:	27.98%	Hit Chance: [91]	76.20%	Actual Crit %: [92]	0.00%					Effect Damage:	Effect DPS: [94]
	Ability	Admg = (OffDefBonus/5*Coeff+wDPS+aBase)*DamageModifiers										0	0	
		Flat Hit: [95]	0	Flat Damage: [96]	0	Effect Hit: [97]	0						Time to Kill: [98]	
														Missing Data!

Casted Nuke/DoT Abilities (no Auto-Attacks)

Casted Nuke/DoT Abilities (no Auto-Attacks)														
Attacker Stats														
Attacker Preset	Offensive Stat [1]	Offensive Power	Weapon Skill	+Armor Pen % [1]	Strikethrough %	Block Strike. %	Crit Chance % [1]	Crit Damage % [1]	Damage Buff %		Weapon Based?	wDPS Coeff [100]	Weapon	
Input this row ->	Custom							45			No	1.00	Mainhand DPS [101]	Offhand DPS [110]
Target Stats														
Target Preset [111]	Hitpoints	Armor	Magic Resist	-Armor Pen % [1]	Defensive Stat [1]	Toughness	Initiative [117]	Crit Reduct % [1]	-Crit Dmg % [118]	Avoidance % [119]	Block Rating [120]	Block % [122]	Input if Weapon Based ->	
Input this row ->	Construct												HP / 4 sec [123]	
Ability Stats														
Ability Base [125]	Stat Coefficient [1]	Cast Time [127]	Duration [128]	Damage Type [1]	Ability Base Calculator [124]				Tooltip Damage	Stat Coefficient [1]	wDPS Coeff [130]	Offensive Stat [1]	Weapon DPS [130]	Ability Base:
Input this row ->				Magical									0.0	0
Results														
	ArmorMitigation:	75.00%	ResistMitigation:	27.98%	Hit Chance: [137]	76.20%	Actual Crit %: [138]	0.00%					Effect Damage:	Effect DPS: [140]
	Ability	Admg = (OffDefBonus/5*Coeff+wDPS+aBase)*DamageModifiers										0	0	
		Flat Damage: [141]	0	Flat DPS: [142]	0.00								Time to Kill: [143]	
														Missing Data!

Stat Coefficient Calculator [144]

Calculate Stat Coefficient ->	Offensive Stat Change [145]	Tooltip Damage Change [146]	Stat Coefficient [147]
			Missing Data!

This Sheet is protected. To use, select "File" and "Make a copy".
 Edit the values in the blue boxes in the copy you made.

Offense Stat [148]	Strikethrough %	
1050	4	
Defense Stat [151]	Avoid Bonus % [152]	Initiative [152]
700	18	350

Hover for Notes	Hit Chance:	Avoid Chance:
Original Mythic [153]	93.50%	6.50%
Ve/Old RoR [154]	81.00%	19.00%
October 2017 [155]	68.98%	31.02%
August 2020 [156]	81.00%	19.00%
January 2024 [157]	75.50%	24.50%
August 2024 [158]	86.00%	14.00%

<- Use Defense Stat box
 <- For Parry, use Initiative box

By Rydiak

This Sheet is protected. To use, select "File" and "Make a copy".
 Edit the values in the blue boxes in the copy you made.

Chance to Be Critically Hit

Initiative [159]	-Crit % [160]
167	15
	Actual Crit % [16
	1.65%

Chance to be Spotted While Stealthed

Enemy Distance	Enemy Initiative	Your Initiative
20	250	366
	While Moving	While Stationary
Front of Enemy	18.66%	3.73%
Side of Enemy	7.46%	1.49%
Behind Enemy	3.73%	0.75%

Chance to Have Stealth Broken When Hit While Spotted

17.46%

By Rydiak

[1] Select attacker preset:

Custom - Uses the custom offensive stats you input in this row.

Preset - Uses offensive stats that mimic a well-gearred character.

[2] Strength, Ballistic Skill, or Intelligence

[3] Melee Power, Ranged Power, or Magic Power

[4] Bonus Armor Penetration % stat from gear or abilities (not from Weapon Skill)

[5] Bonus Parry, Dodge, or Disrupt Strikethrough % from gear or abilities (not from Strength, Intelligence, or Ballistic Skill)

[6] Bonus Block Strikethrough % from gear or abilities (not from Strength, Intelligence, or Ballistic Skill)

[7] Critical Hit Bonus from your paperdoll. Multiple sources stack additively.

[8] Default critical damage bonus is a random roll between 35% and 55%, with an average of 45%. Multiple bonus sources stack multiplicatively.

[9] Anything that boosts damage by a percentage. Multiple bonus sources stack additively.

[10] Total attack speed buffs of attacker

[11] The DPS value listed on attacking Mainhand/Both Hands weapon

[12] The attack speed value listed on attacking Mainhand/Both Hands weapon

[13] Flat armor reduction from gear or abilities

[14] Flat magic resist reduction from gear or abilities

[15] The DPS value listed on attacking Offhand weapon

[16] The attack speed value listed on attacking Offhand weapon

[17] Select target type:

Dummy - Uses Target Dummy which has no defensive stats.

Construct - Uses Construct which has Sovereign-gear Marauder stats.

Custom - Uses the custom defensive stats you input in this row.

[18] Bonus Armor Penetration Reduction % stat from gear or abilities

[19] Initiative for Parry and Dodge, Willpower for Disrupt

[20] Initiative for purposes of Critical Hit Chance Reduction

[21] Critical Hit Chance Reduction from Futile Strikes and gear. Multiple sources stack additively.

[22] Critical Hit Damage Reduction from Trivial Blows and gear. Multiple bonus sources stack multiplicatively.

[23] Bonus Parry, Dodge, or Disrupt %. Do not include avoidance gained from defensive stats.

[24] The block rating found on the target's shield

[25] Bonus Block %. Do not include block gained from block rating or Toughness.

[26] Hitpoints recovered every 4 seconds

[27] Input the two values below for Tooltip Damage and Stat Coefficient to figure out the ability's base damage.

[28] The base damage value of the ability, affected by ability level (mastery).

Use the adjacent Ability Base Calculator to help find this value.

[29] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

Use the Stat Coefficient Calculator at the bottom of the page to help find this value.

[30] Coefficient percent of the weapon's DPS that is added to the ability.

Default 1.50

[31] Select if the damage of the ability is physical or magical (elemental, corporeal, spiritual).

[32] The damage number listed on the ability's tooltip

[33] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

Use the Stat Coefficient Calculator at the bottom of the page to help find this value.

[34] Coefficient percent of the weapon's DPS that is added to the ability.

Default 1.50

[35] Strength, Ballistic Skill, or Intelligence, but NOT Melee/Range/Magic Power

[36] The DPS value listed on attacking weapon. In the case of dual-wield, it is Mainhand DPS plus 45% of Offhand DPS.

[37] Enemy mitigation via armor

[38] Enemy mitigation via resistance

[39] Effective chance to hit accounting for avoidance and strikethrough

[40] Effective critical hit chance accounting for attacker's chance to critically hit and target's chance to be critically hit.

[41] Flat Mainhand/Both Hands auto-attack damage output NOT including critical hits, AFTER target mitigation but BEFORE avoidance

[42] Effective Mainhand/Both Hands auto-attack damage output including average critical hit, AFTER target mitigation AND avoidance

[43] Effective Mainhand/Both Hands auto-attack DPS including critical hits, AFTER target mitigation AND avoidance

[44] Combined effective damage of 1 auto-attack cycle and 1 ability hit

[45] Combined effective DPS of auto-attacks and ability spam

[46] Flat Offhand auto-attack damage output NOT including critical hits, AFTER target mitigation but BEFORE avoidance

[47] Effective Offhand auto-attack damage output including average critical hit, AFTER target mitigation AND avoidance, INCLUDING 45% chance for Offhand auto-attack to proc

[48] Effective Offhand auto-attack DPS including critical hits, AFTER target mitigation AND avoidance, INCLUDING 45% chance for Offhand auto-attack to proc

[49] Time to reduce target's hitpoints to zero

[50] Flat ability damage output NOT including critical hits, AFTER target mitigation but BEFORE avoidance

[51] Effective ability damage output including average critical hit, AFTER target mitigation AND avoidance

[52] Effective ability DPS including critical hits, AFTER target mitigation AND avoidance

[53] Select attacker preset:

Custom - Uses the custom offensive stats you input in this row.

Preset - Uses offensive stats that mimic a well-gearred character.

[54] Strength, Ballistic Skill, or Intelligence

[55] Melee Power, Ranged Power, or Magic Power

[56] Bonus Armor Penetration % stat from gear or abilities (not from Weapon Skill)

[57] Bonus Parry, Dodge, or Disrupt Strikethrough % from gear or abilities (not from Strength, Intelligence, or Ballistic Skill)

[58] Bonus Block Strikethrough % from gear or abilities (not from Strength, Intelligence, or Ballistic Skill)

[59] Critical Hit Bonus from your paperdoll. Multiple sources stack additively.

[60] Default critical damage bonus is a random roll between 35% and 55%, with an average of 45%. Multiple bonus sources stack multiplicatively.

[61] Anything that boosts damage by a percentage. Multiple bonus sources stack additively.

[62] Specify whether the attack is either weapon based (melee/bow/gun) or not (magic staff). Uses the wDPS Coeff box if "Yes".

[63] Coefficient percent of the weapon's DPS that is added to the ability.

Default 1.00

[64] Flat armor reduction from gear or abilities

[65] Flat magic resist reduction from gear or abilities

[66] The DPS value listed on attacking Mainhand/Both Hands weapon (if the ability is weapon based)

[67] The DPS value listed on attacking Offhand weapon (if the ability is weapon based)

[68] Select target type:

Dummy - Uses Target Dummy which has no defensive stats.

Construct - Uses Construct which has Sovereign-gear Marauder stats.

Custom - Uses the custom defensive stats you input in this row.

[69] Bonus Armor Penetration Reduction % stat from gear or abilities

[70] Initiative for Parry and Dodge, Willpower for Disrupt

[71] Initiative for purposes of Critical Hit Chance Reduction

[72] Critical Hit Reduction from Futile Strikes and gear. Multiple sources stack additively.

[73] Critical Hit Damage Reduction from Trivial Blows and gear. Multiple bonus sources stack multiplicatively.

[74] Bonus Parry, Dodge, or Disrupt %. Do not include avoidance gained from defensive stats.

[75] The block rating found on the target's shield

[76] Bonus Block %. Do not include block gained from block rating or Toughness.

[77] Hitpoints recovered every 4 seconds

[78] Input the two values below for Tooltip Damage and Stat Coefficient to figure out the ability's base damage.

[79] The base damage value of the ability, affected by ability level (mastery).

Use the adjacent Ability Base Calculator to help find this value.

[80] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

Use the Stat Coefficient Calculator at the bottom of the page to help find this value.

[81] The number of times the ability hits the target

[82] The cast time of the channeled ability

[83] Select if the damage of the ability is physical or magical (elemental, corporeal, spiritual).

[84] The damage number listed on the ability's tooltip

[85] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

Use the Stat Coefficient Calculator at the bottom of the page to help find this value.

[86] Coefficient percent of the weapon's DPS that is added to the ability.

Default 1.50

[87] Strength, Ballistic Skill, or Intelligence, but NOT Melee/Range/Magic Power

[88] The DPS value listed on attacking weapon. In the case of dual-wield, it is Mainhand DPS plus 45% of Offhand DPS.

[89] Enemy mitigation via armor

[90] Enemy mitigation via resistance

[91] Effective chance to hit accounting for avoidance and strikethrough

[92] Effective critical hit chance accounting for attacker's chance to critically hit and target's chance to be critically hit

[93] Effective ability damage output including average critical hit, AFTER target mitigation AND avoidance, of all channeled hits

[94] Effective ability DPS including critical hits, AFTER target mitigation AND avoidance

[95] Flat ability damage output NOT including critical hits, AFTER target mitigation but BEFORE avoidance, of one channeled hit

[96] Flat ability damage output NOT including critical hits, AFTER target mitigation but BEFORE avoidance, of all channeled hits

[97] Effective ability damage output including average critical hit, AFTER target mitigation AND avoidance, of one channeled hit

[98] Time to reduce target's hitpoints to zero

[99] Select attacker preset:

Custom - Uses the custom offensive stats you input in this row.

Preset - Uses offensive stats that mimic a well-gearred character.

[100] Strength, Ballistic Skill, or Intelligence

[101] Melee Power, Ranged Power, or Magic Power

[102] Bonus Armor Penetration % stat from gear or abilities (not from Weapon Skill)

[103] Bonus Parry, Dodge, or Disrupt Strikethrough % from gear or abilities (not from Strength, Intelligence, or Ballistic Skill)

[104] Bonus Block Strikethrough % from gear or abilities (not from Strength, Intelligence, or Ballistic Skill)

[105] Critical Hit Bonus from your paperdoll. Multiple sources stack additively.

[106] Default critical damage bonus is a random roll between 35% and 55%, with an average of 45%. Multiple bonus sources stack multiplicatively.

[107] Anything that boosts damage by a percentage. Multiple bonus sources stack additively.

[108] Specify whether the attack is either weapon based (melee/bow/gun) or not (magic staff). Uses the wDPS Coeff box if "Yes".

[109] Coefficient percent of the weapon's DPS that is added to the ability.

Default 1.00

[110] Flat armor reduction from gear or abilities

[111] Flat magic resist reduction from gear or abilities

[112] The DPS value listed on attacking Mainhand/Both Hands weapon (if the ability is weapon based)

[113] The DPS value listed on attacking Offhand weapon (if the ability is weapon based)

[114] Select target type:

Dummy - Uses Target Dummy which has no defensive stats.

Construct - Uses Construct which has Sovereign-gear Marauder stats.

Custom - Uses the custom defensive stats you input in this row.

[115] Bonus Armor Penetration Reduction % stat from gear or abilities

[116] Initiative for Parry and Dodge, Willpower for Disrupt

[117] Initiative for purposes of Critical Hit Chance Reduction

[118] Critical Hit Reduction from Futile Strikes and gear. Multiple sources stack additively.

[119] Critical Hit Damage Reduction from Trivial Blows and gear. Multiple bonus sources stack multiplicatively.

[120] Bonus Parry, Dodge, or Disrupt %. Do not include avoidance gained from defensive stats.

[121] The block rating found on the target's shield

[122] Bonus Block %. Do not include block gained from block rating or Toughness.

[123] Hitpoints recovered every 4 seconds

[124] Input the three values below for Tooltip Damage, Stat Coefficient, and Cast Time to figure out the ability's base damage.

[125] The base damage value of the ability, affected by ability level (mastery).

Use the adjacent Ability Base Calculator to help find this value.

[126] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

Use the Stat Coefficient Calculator at the bottom of the page to help find this value.

[127] How long the ability takes to cast in seconds

[128] How long the ability takes to deal its damage (for DoT abilities) in seconds

[129] Select if the damage of the ability is physical or magical (elemental, corporeal, spiritual).

[130] The damage number listed on the ability's tooltip

[131] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

Use the Stat Coefficient Calculator at the bottom of the page to help find this value.

[132] Coefficient percent of the weapon's DPS that is added to the ability.

Default 1.50

[133] Strength, Ballistic Skill, or Intelligence, but NOT Melee/Range/Magic Power

[134] The DPS value listed on attacking weapon. In the case of dual-wield, it is Mainhand DPS plus 45% of Offhand DPS.

[135] Mitigation via armor or magic resist

[136] Enemy mitigation via resistance

[137] Effective chance to hit accounting for avoidance and strikethrough

[138] Effective critical hit chance accounting for attacker's chance to critically hit and target's chance to be critically hit

[139] Effective ability damage output including average critical hit, AFTER target mitigation AND avoidance

[140] Effective ability DPS including critical hits, AFTER target mitigation AND avoidance

[141] Flat ability damage output NOT including critical hits, AFTER target mitigation but BEFORE avoidance

[142] Flat ability DPS NOT including critical hits, AFTER target mitigation but BEFORE avoidance

[143] Time to reduce target's hitpoints to zero

[144] To figure out an ability's Stat Coefficient (stat scaling), note the damage listed on the ability's tooltip. Then buff (or debuff) your Offensive Stat, inputting the amount it changed, and input the change in the ability's tooltip damage.

[145] Change your character's Offensive Stat (Strength, Ballistic Skill, or Intelligence) with either a potion, ability, or by taking off a piece of gear. Input the amount the stat changed by.

[146] Input how much the damage on the tooltip of the ability changed after buffing/debuffing your Offensive Stat.

[147] This is the value that any Offensive Stat (Strength, Intelligence, or BallisticSkill) and Offensive Power (Melee Power, Ranged Power, or Magic Power) is multiplied by to add damage to the ability.

[148] Strength, Ballistic Skill, or Intelligence of the attacker

[149] Flat percentage Parry, Dodge, or Disrupt Strikethrough of the attacker

[150] Weapon Skill, Initiative, or Willpower of the defender

[151] Flat percentage Parry, Dodge, or Disrupt bonus of the attacker

[152] Initiative of the defender (for current Parry chance)

[153] Original formula used by Mythic. This was changed at some point (unknown when).

<https://www.returnofreckoning.com/forum/viewtopic.php?t=965&start=50#p103820>

[154] RoR used this formula until October 2017, but unfortunately had a bug in the way Toughness was handled in the damage portion (not reflected here).

<https://www.returnofreckoning.com/forum/viewtopic.php?f=8&t=879#p10392>

[155] RoR used this formula for an undetermined amount of time after implementation, with parts of it being reverted back to the old formula over time.

<https://www.returnofreckoning.com/forum/viewtopic.php?t=23340>

[156] RoR returned fully to the old formula, this time with Toughness fixed in the damage formula (also not reflected here).

<https://www.returnofreckoning.com/forum/viewtopic.php?t=40325>

<https://www.returnofreckoning.com/forum/viewtopic.php?t=40183>

[157] RoR switched to a new formula that does not have both Offense and Defense Stats dependent on each other. Statdoll tooltips now correctly display avoidance.

<https://www.returnofreckoning.com/forum/viewtopic.php?f=2&t=52422>

[158] Identical to the January 2024 formula, but with Initiative now contributing to Parry instead of Weapon Skill.

<https://www.returnofreckoning.com/forum/viewtopic.php?f=42&t=53721>

[159] Player's Initiative value

[160] Flat Critical Hit Reduction percentage

[161] Player's Chance to be Crit (not counting enemy crit chance)

[162] Distance (in feet) away from the Enemy